



# Massachusetts Institute of Technology

The following information was submitted through the [STARS Reporting Tool](#).

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*The information presented in this submission is self-reported and has not been verified by AASHE or a third party. If you believe any of this information is erroneous, please see the [process for inquiring](#) about the information reported by an institution.*

# Institutional Characteristics

## Institutional Characteristics

The passthrough subcategory for the boundary

<b>Credit</b>
Institutional Boundary
Operational Characteristics
Academics and Demographics

# Institutional Boundary

## Criteria

This won't display

"---" indicates that no data was submitted for this field

## Institution type:

Doctorate

## Institutional control:

Private non-profit

## Which campus features are present and included in the institutional boundary?:

	Present?	Included?
<b>Agricultural school</b>	No	No
<b>Medical school</b>	No	No
<b>Pharmacy school</b>	No	No
<b>Public health school</b>	No	No
<b>Veterinary school</b>	No	No
<b>Satellite campus</b>	No	No
<b>Hospital</b>	No	No
<b>Farm larger than 5 acres or 2 hectares</b>	No	No
<b>Agricultural experiment station larger than 5 acres or 2 hectares</b>	No	No

## Reason for excluding agricultural school:

There is none.

**Reason for excluding medical school:**

There is none.

**Reason for excluding pharmacy school:**

There is none.

**Reason for excluding public health school:**

There is none.

**Reason for excluding veterinary school:**

There is none.

**Reason for excluding satellite campus:**

There are no satellite campuses, though there are affiliated programs and labs outside of MIT's main Cambridge-based campus. For this study however, we are only considering the main campus in its Cambridge location, excluding any affiliated buildings that are not physically in the main campus in Cambridge.

**Reason for excluding hospital:**

There is none.

**Reason for excluding farm:**

There is none.

**Reason for excluding agricultural experiment station:**

There is none.

**Narrative:**

For STARS, we are considering the main MIT academic campus, located in Cambridge, MA, including all schools and both undergraduates and graduate programs. Because MIT is an urban campus integrated into the surrounding urban fabric, it includes buildings owned by MIT and leased to MIT for academic purposes. Moreover, the land parcels that are owned by the university are not always contiguous. Therefore, for credits dealing with building operations, the campus is defined as the footprint of all academic buildings owned by MIT. For credits related to outdoor spaces, abutting leased space is included.



# Operational Characteristics

## Criteria

n/a

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### Submission Note:

Campus area was calculated from MIT-owned parcels classified as "academic" by MIT FIS. (Parcels classified as, for example, "investment" were excluded because they are not directly involved in campus operations.)

"---" indicates that no data was submitted for this field

### Endowment size:

11,000,000,000 *US/Canadian \$*

### Total campus area:

168.40 *Acres*

### IECC climate region:

Mixed-Humid

### Locale:

Urban fringe of large city

### Gross floor area of building space:

12,159,717 *Gross Square Feet*

### Conditioned floor area:

12,159,717 *Square Feet*

### Floor area of laboratory space:

1,916,304 *Square Feet*

### Floor area of healthcare space:

34,895 *Square Feet*

### Floor area of other energy intensive space:

86,846 *Square Feet*

### Floor area of residential space:

1,558,513 *Square Feet*

**Electricity use by source::**

	Percentage of total electricity use (0-100)
Biomass	---
Coal	2
Geothermal	---
Hydro	4
Natural gas	69
Nuclear	16
Solar photovoltaic	---
Wind	4
Other (please specify and explain below)	5

**A brief description of other sources of electricity not specified above:**

Approximately 95% of the electricity produced by MIT's central utility is produced with a natural gas-fired co-generation facility. When gas is not available on the market, No. 2 oil is used. This MIT generated electricity comprises approximately 55% of overall electricity use. The remaining electricity is purchased on the regional grid and those source resource mix percentages are included for ISO NE region.

**Energy used for heating buildings, by source::**

	Percentage of total energy used to heat buildings (0-100)
Biomass	---
Coal	---
Electricity	---
Fuel oil	2



<b>Geothermal</b>	---
<b>Natural gas</b>	98
<b>Other (please specify and explain below)</b>	---

**A brief description of other sources of building heating not specified above:**

All campus heating is generated via natural gas and fuel oil.

# Academics and Demographics

## Criteria

n/a

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### Submission Note:

MIT Medical Center does not provide in-patient care, and therefore does not have any in-patient hospital beds.

The number of residential employees is assumed to be equal to the number of MIT faculty and MIT staff serving as housemasters in undergraduate and graduate on-campus housing, as listed on the websites of the MIT Housing Office and the MIT Division of Student Life.

#### Source:

<http://web.mit.edu/ir/cds/2013/cds2013.html>

;

[http://www.cambridgema.gov/~media/Files/CDD/Planning/TownGown/tg2013/town\\_gown\\_2013\\_mit.ashx](http://www.cambridgema.gov/~media/Files/CDD/Planning/TownGown/tg2013/town_gown_2013_mit.ashx)

;

<http://housing.mit.edu>

;

<http://studentlife.mit.edu/housemasters>

*"---" indicates that no data was submitted for this field*

### Number of academic divisions:

5

### Number of academic departments (or the equivalent):

32

### Full-time equivalent enrollment:

11,074

### Full-time equivalent of employees:

8,956

### Full-time equivalent of distance education students:

0

### Total number of undergraduate students:

4,503

**Total number of graduate students:**

6,773

**Number of degree-seeking students:**

11,119

**Number of non-credit students:**

0

**Number of employees:**

10,336

**Number of residential students:**

5,981

**Number of residential employees:**

25

**Number of in-patient hospital beds:**

0

# Academics

## Curriculum

This subcategory seeks to recognize institutions that have formal education programs and courses that address sustainability. One of the primary functions of colleges and universities is to educate students. By training and educating future leaders, scholars, workers, and professionals, higher education institutions are uniquely positioned to prepare students to understand and address sustainability challenges. Institutions that offer courses covering sustainability issues help equip their students to lead society to a sustainable future.

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### From the institution:

Spanning five schools — architecture and planning; engineering; humanities, arts, and social sciences; management; and science — and more than 30 departments and programs, an education at MIT covers more than just science and technology.

Arts, business, global languages, health and more complete an education at MIT, and the Institute makes freely available its class lecture notes, exams and videos through MIT's OpenCourseWare and complete courses are offered through the new online-learning initiative, edX.

<b>Credit</b>
Academic Courses
Learning Outcomes
Undergraduate Program
Graduate Program
Immersive Experience
Sustainability Literacy Assessment
Incentives for Developing Courses
Campus as a Living Laboratory

# Academic Courses

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### *Part 1*

Institution offers sustainability courses and/or courses that include sustainability and makes an inventory of those courses publicly available.

### *Part 2*

Institution's academic departments (or the equivalent) offer sustainability courses and/or courses that include sustainability.

In order to report and earn points for this credit, the institution must conduct a course inventory. The inventory should consist of two parts:

- 1) An inventory of sustainability courses that includes, at minimum, the title, department (or equivalent), and level of each course (i.e. undergraduate or graduate), as well as a brief description if the sustainability focus of the course is not apparent from its title
- 2) An inventory of other courses that include sustainability. The inventory includes, at minimum, the title, department (or the equivalent), and level of each course and a description of how sustainability is integrated into each course.

A course may be a sustainability course or it may include sustainability; no course should be identified as both:

- A sustainability course is a course in which the primary and explicit focus is on sustainability and/or on understanding or solving one or more major sustainability challenge (e.g. the course contributes toward achieving principles outlined in the [Earth Charter](#)).
- A course that includes sustainability is primarily focused on a topic other than sustainability, but incorporates a unit or module on sustainability or a sustainability challenge, includes one or more sustainability-focused activities, or integrates sustainability issues throughout the course.

For guidance on conducting a course inventory and distinguishing between sustainability courses and courses that include sustainability, see *Standards and Terms* and the Credit Example in the [STARS Technical Manual](#). An institution that has developed a more refined approach to course classification may use that approach as long as it is consistent with the definitions and guidance provided.

Each institution is free to choose a methodology to identify sustainability courses that is most appropriate given its unique circumstances. Asking faculty and departments to self-identify sustainability courses and courses that include sustainability using the definitions outlined in *Standards and Terms* or looking at the stated learning outcomes and course objectives associated with each course may provide a richer view of sustainability course offerings than simply reviewing course descriptions, but it is not required.

This credit does not include continuing education and extension courses, which are covered by *EN 11: Continuing Education*.

**Figures required to calculate the percentage of courses with sustainability content::**

	<b>Undergraduate</b>	<b>Graduate</b>
<b>Total number of courses offered by the institution</b>	300	437
<b>Number of sustainability courses offered</b>	37	51
<b>Number of courses offered that include sustainability</b>	27	54

**Number of academic departments (or the equivalent) that offer at least one sustainability course and/or course that includes sustainability (at any level):**

22

**Total number of academic departments (or the equivalent) that offer courses (at any level):**

32

**Number of years covered by the data:**

One

**A copy of the institution's inventory of its course offerings with sustainability content (and course descriptions):**

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**An inventory of the institution's course offerings with sustainability content (and course descriptions):**

Please see

<http://student.mit.edu/catalog/index.cgi>

**The website URL where the inventory of course offerings with sustainability content is publicly available:**

<http://student.mit.edu/catalog/index.cgi>

**A brief description of the methodology the institution followed to complete the course inventory:**

Descriptions for all courses offered by MIT are available at

<http://student.mit.edu/catalog/index.cgi>

. For this credit, courses relating to sustainability were inventoried in two steps. First, all courses whose titles referenced the idea of human impacts on the environment were counted as sustainability courses. Second, all courses whose titles included sustainability- or environment-related words were flagged for additional review and classified as being a sustainability-focused course or as only including sustainability content accordingly.

**How did the institution count courses with multiple offerings or sections in the inventory?:**

Each course was counted as a single course regardless of the number of offerings or sections

**A brief description of how courses with multiple offerings or sections were counted (if different from the options outlined above):**

---

**Which of the following course types were included in the inventory?:**

	Yes or No
Internships	No
Practicums	No
Independent study	Yes
Special topics	Yes
Thesis/dissertation	Yes
Clinical	No
Physical education	No
Performance arts	No

**Does the institution designate sustainability courses in its catalog of course offerings?:**

No

**Does the institution designate sustainability courses on student transcripts?:**

No





# Learning Outcomes

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution's students graduate from degree programs that include sustainability as a learning outcome or include multiple sustainability learning outcomes. Sustainability learning outcomes (or the equivalent) may be specified at:

- Institution level (e.g. covering all students)
- Division level (e.g. covering one or more schools or colleges within the institution)
- Program level
- Course level

This credit includes graduate as well as undergraduate programs. For this credit, "degree programs" include majors, minors, concentrations, certificates, and other academic designations. Extension certificates and other certificates that are not part of academic degree programs do not count for this credit; they are covered in *EN 11: Continuing Education*. Programs that include co-curricular aspects may count as long as there is an academic component of the program. Learning outcomes at the course level count if the course is required to complete the program.

This credit is inclusive of learning outcomes, institutional learning goals, general education outcomes, and graduate profiles that are consistent with the definition of "sustainability learning outcomes" included in Standards and Terms.

Institutions that do not specify learning outcomes as a matter of policy or standard practice may report graduates from sustainability-focused programs (i.e. majors, minors, concentrations and the equivalent as reported for *AC 3: Undergraduate Program* and *AC 4: Graduate Program*) in lieu of the above criteria.

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"---" indicates that no data was submitted for this field

**Number of students who graduated from a program that has adopted at least one sustainability learning outcome:**

1,968

**Total number of graduates from degree programs:**

3,389

**A copy of the list or inventory of degree, diploma or certificate programs that have sustainability learning outcomes:**

[AC2 Learning Outcomes JD 072414\\_1.xlsx](#)

**A list of degree, diploma or certificate programs that have sustainability learning outcomes:**

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**A list or sample of the sustainability learning outcomes associated with degree, diploma or certificate programs (if not included in an inventory above):**

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**The website URL where information about the institution's sustainability learning outcomes is available:**

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# Undergraduate Program

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## Responsible Party

TBD TBD  
TBD  
Office of the Registrar

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## Criteria

Institution offers at least one:

- Sustainability-focused program (major, degree program, or equivalent) for undergraduate students

And/or

- Undergraduate-level sustainability-focused minor or concentration (e.g. a concentration on sustainable business within a business major).

Extension certificates and other certificates that are not part of academic degree programs do not count for this credit; they are covered in *EN 11: Continuing Education*.

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"---" indicates that no data was submitted for this field

## Does the institution offer at least one sustainability-focused major, degree program, or the equivalent for undergraduate students?:

Yes

## The name of the sustainability-focused, undergraduate degree program (1st program):

Bachelor of Science in Environmental Engineering

## A brief description of the undergraduate degree program (1st program):

Bachelor of Science in Environmental Engineering Science/Course 1-E

The 1-E option is designed for students who wish to gain an in-depth understanding of the physical, chemical, and biological processes that control natural and engineered environments and their interactions with human activities. Subjects in environmental transport and hydrology share a laboratory that emphasizes both practical skills and the use of measurements to test hypotheses. Similarly, the environmental chemistry and biology subjects are accompanied by a laboratory that introduces methods for relevant measurements in ecosystems and engineered systems. Unrestricted electives and advanced restricted electives are typically used to build depth in particular areas of interest to the student.

The 1-E program provides the education necessary for careers in environmental engineering and science, as well as in many other fields. It also gives a solid foundation for graduate study and research in both basic and applied environmental disciplines. The 1-E program is accredited by the Engineering Accreditation Commission of ABET,

<http://www.abet.org/>

, and is sufficiently flexible to prepare students for careers in medicine or environmental law.

**The website URL for the undergraduate degree program (1st program):**

<http://web.mit.edu/catalog/degre.engin.ch1e.html>

**The name of the sustainability-focused, undergraduate degree program (2nd program):**

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**A brief description of the undergraduate degree program (2nd program):**

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**The website URL for the undergraduate degree program (2nd program):**

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**The name of the sustainability-focused, undergraduate degree program (3rd program):**

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**A brief description of the undergraduate degree program (3rd program):**

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**The website URL for the undergraduate degree program (3rd program):**

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**The name and website URLs of all other sustainability-focused, undergraduate degree program(s):**

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**Does the institution offer one or more sustainability-focused minors, concentrations or certificates for undergraduate students?:**

Yes

**The name of the sustainability-focused undergraduate minor, concentration or certificate (1st program):**

Minor in Toxicology and Environmental Health

**A brief description of the undergraduate minor, concentration or certificate (1st program):**

The Department of Biological Engineering offers an undergraduate Minor in Toxicology and Environmental Health. The goal of this program is to meet the growing demand for undergraduates to acquire the intellectual tools needed to understand and assess the impact of new products and processes on human health, and to provide a perspective on the risks of human exposure to synthetic and natural chemicals, physical agents, and microorganisms.

Given the importance of environmental education at MIT, the program is designed to be accessible to any MIT undergraduate.

**The website URL for the undergraduate minor, concentration or certificate (1st program):**

<http://web.mit.edu/catalog/degre.engin.biolo.html>

**The name of the sustainability-focused undergraduate minor, concentration or certificate (2nd program):**

Minor in Environmental Engineering Science

**A brief description of the undergraduate minor, concentration or certificate (2nd program):**

The Minor in Environmental Engineering Science consists of the following subjects:

- 1.018J Ecology I: The Earth System
- 1.020 Ecology II: Engineering for Sustainability
- 1.101 Introduction to Civil and Environmental Engineering Design I
- 1.102 Introduction to Civil and Environmental Engineering Design II
- 1.080 Environmental Chemistry
- 1.107 Environmental Chemistry and Biology Laboratory

and one of the following three subjects:

- 1.801J Environmental Law, Policy, and Economics: Pollution Prevention and Control
- 11.002J Making Public Policy
- 14.01 Principles of Microeconomics

Substitution of equivalent subjects offered by other departments is allowed, with permission of the minor advisor. However, at least three full subjects (12 units) must be Course 1 subjects.

**The website URL for the undergraduate minor, concentration or certificate (2nd program):**

<http://web.mit.edu/catalog/degre.engin.civil.html>

**The name of the sustainability-focused undergraduate minor, concentration or certificate (3rd program):**

Energy Studies Minor

**A brief description of the undergraduate minor, concentration or certificate (3rd program):**

The goal of MIT's Energy Studies Minor is to produce multi-dimensional graduates with both subject-specific knowledge and integrative understanding across a variety of energy issues.

Energy permeates almost all disciplines at MIT. MIT's unique approach is to integrate undergraduate energy education across all the schools, all the departments, and all the programs that MIT offers.

The Minor does this through a coherent program of subjects that provide single-discipline, multi-disciplinary, and interdisciplinary perspectives on energy. Entering students are offered a variety of hands-on subjects and opportunities to engage in the complex reality of energy.

The heart of the Minor is a core of foundational subjects in the domains of energy science, technology and social science. Students deepen and integrate these perspectives through a variety of electives, and have a variety of options to pursue a capstone experience to bring all parts of their energy studies together.

**The website URL for the undergraduate minor, concentration or certificate (3rd program):**

<http://mitei.mit.edu/education/energy-minor>

**The name, brief description and URL of all other undergraduate-level sustainability-focused minors, concentrations and certificates:**

(IN PROGRESS)

## Responsible Party

**TBD TBD**  
TBD  
Office of the Registrar

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## Criteria

Institution offers at least one:

- Sustainability-focused program (major, degree program, or equivalent) for graduate students

And/or

- Graduate-level sustainability-focused minor, concentration or certificate (e.g. a concentration on sustainable business within an MBA program).

Extension certificates and other certificates that are not part of academic degree programs do not count for this credit; they are covered in *EN 11: Continuing Education*.

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"---" indicates that no data was submitted for this field

## Does the institution offer at least one sustainability-focused major, degree program, or the equivalent for graduate students?:

Yes

## The name of the sustainability-focused, graduate-level degree program (1st program):

Master of Science in Technology and Policy

## A brief description of the graduate degree program (1st program):

The Technology and Policy Program (TPP) educates students seeking leadership roles in the constructive development and use of technology—an area that is not well served by the traditional education of technical or social science specialists. TPP focuses on meeting the need for engineering leaders who are capable of dealing effectively with core technical issues in their full economic, political, and administrative contexts.

The TPP vision is oriented around a set of core values and purpose with a bold stretch goal. The core values in the TPP program are represented in the combination of leadership through the highest quality education, objective analysis, and integrity and excellence as the hallmark of the education and people. The core purpose is to help societies and companies identify and implement appropriate technological solutions that enhance human dignity and support justice. The goal is to make the program the most prestigious and sought after in the world and to produce the technological decision makers for the world.

**The website URL for the graduate degree program (1st program) :**

<http://tppsserver.mit.edu/>

**The name of the sustainability-focused, graduate-level degree program (2nd program):**

Master of Science in Engineering Systems

**A brief description of the graduate degree program (2nd program):**

The SM in Engineering Systems is an engineering degree available to students with an undergraduate degree in engineering or science. The degree focuses on the design and implementation of socio-technical systems. The ESD SM can be a terminal degree that prepares the student for productive practice, or it can be obtained during the ESD PhD program. The ESD SM allows ESD faculty and students to work together on issues of mutual interest different from those covered by the other masters' programs that are part of ESD (i.e., the Technology and Policy, Supply Chain Management, and System Design and Management programs described elsewhere in this chapter).

**The website URL for the graduate degree program (2nd program):**

<http://esd.mit.edu/academics/sm.html>

**The name of the sustainability-focused, graduate-level degree program (3rd program):**

PhD in Engineering Systems

**A brief description of the graduate degree program (3rd program):**

ESD's doctoral students are leaders in the evolution of engineering systems approaches—committed to thinking imaginatively about ways to broaden engineering's scope to solve complex problems. In the course of their studies, students acquire broad knowledge of the field of engineering systems and deep knowledge of a domain and of a methodology. By the time a student defends his or her thesis, he or she has conducted original scholarship on complex technical systems, advancing either theory, policy, or practice.

As with the Engineering Systems Division as a whole, the research done by students in the doctoral program can be categorized into several broad areas, including energy and sustainability, extended enterprises, health care delivery, and critical infrastructures, among others. Students use approaches that examine the interface of humans and technology or that measure, model, and mitigate the effects of uncertainty. Students work to improve the design and implementation of large, complex systems. Students deploy network models to understand complexly related social, technical, and managerial entities.

**The website URL for the graduate degree program (3rd program):**

<http://web.mit.edu/catalog/degre.engin.engin.html#mas>

**The name and website URLs of all other sustainability-focused, graduate-level degree program(s):**

Master of Science in Atmospheric Science

Master of Science in Climate Physics and Chemistry

<http://web.mit.edu/catalog/degre.scien.earth.html#grad>



**Does the institution offer one or more graduate-level sustainability-focused minors, concentrations or certificates?:**

Yes

**The name of the graduate-level sustainability-focused minor, concentration or certificate (1st program):**

Environmental Planning Certificate

**A brief description of the graduate minor, concentration or certificate (1st program):**

Environmental Planning Certificate

Students in the MCP and PhD program who complete a prescribed set of subjects are awarded a Certificate in Environmental Planning.

**The website URL for the graduate minor, concentration or certificate (1st program):**

<http://web.mit.edu/catalog/degre.archi.urban.html#grad>

**The name of the graduate-level sustainability-focused minor, concentration or certificate (2nd program):**

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**A brief description of the graduate minor, concentration or certificate (2nd program):**

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**The website URL for the graduate minor, concentration or certificate (2nd program):**

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**The name of the graduate-level sustainability-focused minor, concentration or certificate (3rd program):**

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**A brief description of the graduate minor, concentration or certificate (3rd program):**

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**The website URL for the graduate minor, concentration or certificate (3rd program):**

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**The name and website URLs of all other graduate-level, sustainability-focused minors, concentrations and certificates:**

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# Immersive Experience

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## Responsible Party

### D-Lab person D-lab

Person in charge of D-lab

D-lab and S lab in sloan

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## Criteria

Institution offers at least one immersive, sustainability-focused educational study program. The program is one week or more in length and may take place off-campus, overseas, or on-campus.

For this credit, the program must meet one or both of the following criteria:

- It concentrates on sustainability, including its social, economic, and environmental dimensions

And/or

- It examines an issue or topic using sustainability as a lens.

For-credit programs, non-credit programs and programs offered in partnership with outside entities may count for this credit. Programs offered exclusively by outside entities do not count for this credit.

See the Credit Example in the STARS Technical Manual for further guidance.

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## Submission Note:

MIT is constantly innovating different new programs so at the time of publication of this report, there may be more programs on sustainability at the University.

"---" indicates that no data was submitted for this field

## Does the institution offer at least one immersive, sustainability-focused educational study program that meets the criteria for this credit?:

Yes

## A brief description of the sustainability-focused immersive program(s) offered by the institution:

Note: D-Lab refers to "Development Lab" a program at MIT that is entirely focused on applying engineering and technology to internal development.

### 1. D-Lab: Cross Cultural Investigations:

Cross-cultural research and collaboration is increasingly common, from engineering and development projects to disaster relief and global clinical trials. But working across cultural, economic, and political divides is not easy. This course investigates how cultural beliefs

and practices as well as institutional power dynamics are at the core of international collaborations and influence the adoption of new technologies. As researchers and as world citizens, how can we best understand and bridge cultural and economic differences?

Engaging in hands-on learning, students will go off campus to practice doing interviews, conducting participant-observation research, and honing techniques of cross-cultural communication. We will also review case studies in "appropriate" technology design and transfer and draft plans for improved practice. The course is open to all interested students but designed particularly for those planning to undertake exploratory research or applied work abroad, especially in developing countries.

## 2. D-Lab: Biodiversity

D-Lab: Biodiversity is a hands-on, multi-disciplinary exploration of the dynamic nexus between global biodiversity and human well-being. This course, comprised of lectures, guest speakers, experiential activities and projects, covers topics such as reforestation, nutrient cycles, poaching, complexity, climate change, fair trade, ecotourism and governance. It provides opportunities to develop and practice skills in cross-cultural engagement, negotiation, ecological measurement, permaculture and sustainable technology design. Students work remotely with community partners on projects, jointly identifying community concerns and co-designing potential solutions. Opportunities for summer travel to partner communities offered.

## 3. D-Lab: Cycle Ventures

D-Lab: Cycle Ventures explores bicycle technology to provide human power for an increasing array of other purposes including water pumping, grain grinding and transport of loads in underserved communities with the aim to offer economic opportunity. The course provides a historical perspective on innovation in bicycle technology, reviews its engineering mechanisms and draws on the ubiquity of bikes to present them as innovative tools to foster socio-economic development. The course involves lectures and two types of projects. Early in the semester the whole class tackles on a single, joint, design and fabrication project. Later, students will form teams and take on design challenges from organizations that work with bicycle based technologies around the world. Optional January travel to partner communities. Enrollment limited.

## 4. D-lab: Development

D-Lab: Development addresses issues of technological improvements at the micro level for developing countries—in particular, how the quality of life of low-income households can be improved by adaptation of low cost and sustainable technologies. Discussion of development issues as well as project implementation challenges are addressed through lectures, case studies, guest speakers and laboratory exercises. Students form project teams to partner with mostly local level organizations in developing countries, and formulate plans for an IAP site visit. (Previous field sites include Ghana, Brazil, Honduras and India.) Project team meetings focus on developing specific projects and include cultural, social, political, environmental and economic overviews of the countries and localities to be visited as well as an introduction to the local languages.

## 5. D-lab: Disseminating Water, Sanitation, Hygiene and Environmental Innovations for the Common Good

D-Lab: Dissemination WASH-Env focuses on disseminating Water, Sanitation and Hygiene (WASH) or water/environment innovations in developing countries and underserved communities worldwide. Structured around field-based learning, case studies, lectures and videos in which teams propose an idea and are mentored through the process of bringing that innovation to fruition. Emphasizes core WASH and water/environment principles, culture-specific solutions, tools for start-ups, appropriate and sustainable technologies, behavior change, social marketing, building partnerships, and the theory and practice of innovation diffusion. Term project entails entering the IDEAS or other competition(s) while implementing a WASH or water/environment innovation in a specific locale. Guest lectures on specific real-world WASH and water/environment projects which have been disseminated by MIT faculty, students, alumni, and others. Students taking graduate version complete additional assignments.

## 6. D-lab: Education

This class explores education in the international development context and how modern best practices can be applied to overcome challenges, such as limited resources, language barriers, large class sizes, and entrenched pedagogy. Through an overview of core teaching skills emphasizing experiential and project-based learning, students gain the background and skills to nurture creativity in youth and develop interactive lessons around science, technology, engineering, and math. Throughout the course, students draft and deliver lessons, receive feedback from peers and mentors, and then practice teaching in local Boston-area schools. Optional summer opportunities are available for dedicated students to work abroad with teachers and youth through D-Lab community partners.

#### 7. D-lab: Energy

D-Lab: Energy offers a hands-on, project-based approach that engages students in understanding and addressing the applications of alternative energy technology in developing countries where compact, robust, low-cost systems for generating power are required. Projects may include micro-hydro, solar, or wind turbine generators along with theoretical analysis, design, prototype construction, evaluation and implementation. Students will have the opportunity to travel to a developing country during spring break to research and implement projects.

#### 8. D-lab: Health- Medical Technologies for the Developing World

D-Lab Health provides a multi-disciplinary approach to global health technology design using real world projects and partners. The course explores the current state of global health challenges, and teaches students how to design medical technologies that address those problems. Students will use medical technology design kits to encourage an accelerated introduction to medical device design for developing countries. Example kits include: mobile health informatics, instrument design, diagnostics, microfluidics and drug delivery systems. Guest speakers cover fundamental topics in global health technology and help students identify design challenges. During the spring break, students travel to Nicaragua to work with health professionals to obtain direct knowledge of their medical device challenges.

#### 9. D-lab: ICT- Information and Communication Technologies for Development

D-Lab: ICT is an engineering lab class that teaches the use of Information and Communication Technologies to address specific needs in developing countries. The goal of the course is to provide the knowledge and skills needed to successfully deploy an ICT project, with a focus on appropriateness, transferability, and long-term sustainability. The class is comprised of lectures, discussions, and hands-on laboratory modules. Topics include: low-cost computers and instrumentation, low-power sensors, radio technologies (RFID, Bluetooth and Wi-Fi), power generation (solar, wind, bio, and mechanical), cell-phone accessories, and network architectures for data-collection and mapping. Students work in multidisciplinary teams on their projects, closely collaborating with local community partners, field practitioners, and experts in relevant fields.

#### 10. D-lab: Wheelchair Design for Developing Countries

Wheelchair Design in Developing Countries focuses on improving wheelchair technology in developing countries by applying sound engineering practices to create appropriate devices. Lectures focus on wheelchair usage, social stigmas, and manufacturing constraints. Includes lectures by third-world community partners, US wheelchair organizations, and MIT faculty. Multidisciplinary student teams conduct semester-long wheelchair projects relating to hardware design, manufacturing optimization, biomechanics modeling, and business plan development. Funded opportunities are available for travel to implement class projects at wheelchair workshops in the field.

#### 11. D-lab: Waste

D-Lab: Waste provides a multi-disciplinary approach to understand waste management in low-and-middle-income countries with strategies that diminish greenhouse gas emissions and provide enterprise opportunities for marginalized populations. The course, comprised of lectures, fieldtrips, and guest speakers, studies zerowaste strategies in cities in Africa, India, and Latin America; examines different models of collection, recycling, organic management and businesses developed in low-income settings; and researches public policy that supports sustainable, integrated, solid waste management systems. Student teams develop waste management businesses and

entrepreneurial training modules in partnership with wastepickers and municipal governments over the course of the term that culminate in a two-week IAP trip to Nicaragua and Panama where students will implement zero waste strategies, including waste sector businesses, and enterprise learning modules.

#### 12. D-lab: Product Development of Poverty Alleviating Technologies

This course focuses on the late stages of product design for users in low-income settings. Through relationships with businesses in countries such as India, Tanzania & Nicaragua, students work in interdisciplinary teams to develop previously established technologies toward manufacturing-ready product designs. Lessons are hands-on and case based. The course is taught by instructors from D-Lab with deep field experience, and industry experts from product development consulting and consumer product design. This is an advanced design course, and we expect students to use CAD, various rapid prototyping and mass-manufacturing technologies, resulting in substantially iterated product designs and, if appropriate, a small production batch. We encourage students from all majors to enroll.

#### 13. D-lab: Development Ventures - MIT Emerging Market Innovations Seminar

Development Ventures (DV) is an exploratory Fall semester elective Action Lab on founding, financing, and building entrepreneurial ventures targeting developing countries, emerging markets, and underserved consumers everywhere. Particular emphasis is placed on transformative innovations and exponentially scalable business models that can enable or accelerate major positive social change throughout the world.

#### 14. S-Lab: Sustainable Business Lab

The Sustainable Business Lab (S-Lab) provides students with a unique opportunity to explore the connection between business, the environment, and society. Through their S-Lab projects, students apply knowledge from the classroom to solve real-world problems and see firsthand how businesses are tackling the massive challenges of sustainability.

Under the guidance of an MIT faculty mentor, interdisciplinary teams of four students engage in a six week-long project with S-Lab's partner companies and non-profit organizations. The projects investigate a range of sustainability issues, including: aligning business strategies with social and environmental goals; developing methodologies to measure business impacts on the environment; and measuring the return on investment from environmental and social initiatives. The analyses of the S-Lab teams help partner organizations take concrete actions to improve social, environmental, and economic outcomes in the long-term. Many final project reports are made publicly available to diffuse the students' insights and advance the field of sustainability broadly.

Link:

<http://mitsloan.mit.edu/actionlearning/labs/s-lab.php>

#### 15. P-Lab: Managing Sustainable Business for People and Profits

Managing Sustainable Businesses for People and Profits (P-Lab) focuses on the strategies, policies, practices, and leadership needed to build and grow organizations that achieve high levels of performance and returns to shareholders and society while generating and maintaining high quality jobs and career opportunities.

P-Lab utilizes readings, cases, simulations, and class visits from industry leaders to cover the knowledge and skills needed to create and manage sustainable organizations. Students apply what they've learned to field projects that address the challenges that organizations are facing in pursuing these objectives.

The goal of P-Lab is to engage the students in advancing thought and solidifying underlying principles for social sustainability. With a special emphasis on work, the workplace, and forces that influence the actions of employers, this course explores the opportunities for [STARS Reporting Tool](#) | [AASHE](#)

coherent and effective social sustainability practices. P-Lab strives to close the gap between today's reality and a vision for tomorrow's organizations and society.

Link:

<http://mitsloan.mit.edu/actionlearning/labs/p-lab.php>

#### 16. L-Lab: Leading Sustainable Systems

Leading Sustainable Systems (L-Lab) tackles critical issues of leading change in global business sustainability. The course combines an on-site field project experience focused on business critical sustainability initiatives, with systems thinking tools and thought-leading reflective practices that develop personal and collective leadership skills.

In January, the student teams—typically composed of four graduate students—spend three weeks on site, working closely with organizational leaders to address critical issues of sustainability and develop capacities for systemic change, where leading across traditional organizational boundaries is often required.

Link:

<http://mitsloan.mit.edu/actionlearning/labs/l-lab.php>

**The website URL where information about the immersive program(s) is available:**

<http://d-lab.mit.edu/courses>

# Sustainability Literacy Assessment

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution conducts an assessment of the sustainability literacy of its students. The sustainability literacy assessment focuses on knowledge of sustainability topics and may also address values, behaviors and/or beliefs. Assessments that focus exclusively on values, behaviors and/or beliefs are not sufficient to earn points for this credit.

Institution may conduct a follow-up assessment of the same cohort group(s) using the same instrument.

This credit includes graduate as well as undergraduate students.

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*"---" indicates that no data was submitted for this field*

**The percentage of students assessed for sustainability literacy (directly or by representative sample) and for whom a follow-up assessment is conducted:**

0

**The percentage of students assessed for sustainability literacy (directly or by representative sample) without a follow-up assessment:**

0

**A copy of the questions included in the sustainability literacy assessment(s):**

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**The questions included in the sustainability literacy assessment(s) :**

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**A brief description of how the assessment(s) were developed:**

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**A brief description of how the assessment(s) were administered:**

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**A brief summary of results from the assessment(s):**

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**The website URL where information about the literacy assessment(s) is available:**

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# Incentives for Developing Courses

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution has an ongoing program or programs that offer incentives for faculty in multiple disciplines or departments to develop new sustainability courses and/or incorporate sustainability into existing courses or departments. The program specifically aims to increase student learning of sustainability.

Incentives may include release time, funding for professional development, and trainings offered by the institution.

Incentives for expanding sustainability offerings in academic, non-credit, and/or continuing education courses count for this credit.

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*"---" indicates that no data was submitted for this field*

## Does the institution have an ongoing incentives program or programs that meet the criteria for this credit?:

Yes

## A brief description of the program(s), including positive outcomes during the previous three years:

The Energy Education Task Force (EETF) offers incentives for faculty to develop new or substantially revised energy-focused subjects. The task force is part of the MIT Energy Initiative (MITEI), a platform for energy-related activity at MIT, including research, education, campus energy management, and outreach programs that cover all areas of energy supply and demand, security, and environmental impact.

Proposed energy-focused subjects must be intended as permanent additions to the MIT undergraduate curriculum. In addition, they are subject to the review, approval, and budgeting cycles of all relevant Institute committees. Proposals are reviewed monthly by the Energy Education Task Force (EETF) and Energy Minor Oversight Committee (EMOC) on a rolling basis.

There are currently 73 energy-focused classes taught at MIT, which are cataloged on the MITEI website (

<http://mitei.mit.edu/education/energy-classes>

). In addition, MITEI sponsors an Energy Studies Minor. This minor produces multi-dimensional graduates who possess both subject-specific knowledge and integrative understanding across a range of energy issues. In addition, the minor integrates undergraduate energy education across all schools, departments, and programs at MIT. The minor consists of core subjects in energy science, technology, and social science, as well as a variety of electives and a capstone experience (

<http://mitei.mit.edu/education/energy-minor>

).

**A brief description of the incentives that faculty members who participate in the program(s) receive:**

MITEI's Energy Education Task Force (EETF) provides faculty with funding to develop new or substantially revised energy-focused subjects. Funding levels range from less than \$10,000 to more than \$100,000, depending on the extent of development required. Proposals may include costs for development and first year delivery, as well as modest support for delivery in the second and third years (

<http://mitei.mit.edu/education/curriculum-funding>

).

**The website URL where information about the incentive program(s) is available:**

<http://mitei.mit.edu/education/curriculum-funding>

# Campus as a Living Laboratory

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## Responsible Party

TBD TBD

TBD

Office of the Registrar

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## Criteria

Institution is utilizing its infrastructure and operations for multidisciplinary student learning, applied research and practical work that advances sustainability on campus in at least one of the following areas:

- Air & Climate
- Buildings
- Dining Services/Food
- Energy
- Grounds
- Purchasing
- Transportation
- Waste
- Water
- Coordination, Planning & Governance
- Diversity & Affordability
- Health, Wellbeing & Work
- Investment
- Public Engagement
- Other

This credit includes substantive work by students and/or faculty (e.g. class projects, thesis projects, term papers, published papers) that involves active and experiential learning and contributes to positive sustainability outcomes on campus (see the Credit Example in the [STARS Technical Manual](#)). On-campus internships and non-credit work (e.g. that take place under supervision of sustainability staff or committees) may count as long as the work has a learning component.

This credit does not include immersive education programs, co-curricular activities, or community-based work, which are covered by AC 5: *Immersive Experience*, credits in the Campus Engagement subcategory, and credits in the Public Engagement subcategory, respectively.

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"---" indicates that no data was submitted for this field

## Is the institution utilizing the campus as a living laboratory in the following areas?:

	Yes or No
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<b>Air &amp; Climate</b>	---
<b>Buildings</b>	Yes
<b>Dining Services/Food</b>	Yes
<b>Energy</b>	Yes
<b>Grounds</b>	Yes
<b>Purchasing</b>	---
<b>Transportation</b>	Yes
<b>Waste</b>	Yes
<b>Water</b>	---
<b>Coordination, Planning &amp; Governance</b>	Yes
<b>Diversity &amp; Affordability</b>	Yes
<b>Health, Wellbeing &amp; Work</b>	Yes
<b>Investment</b>	---
<b>Public Engagement</b>	Yes
<b>Other</b>	---

**A brief description of how the institution is using the campus as a living laboratory for Air & Climate and the positive outcomes associated with the work:**

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**A brief description of how the institution is using the campus as a living laboratory for Buildings and the positive outcomes associated with the work:**

In Fall 2011, MIT's newest undergraduate dormitory- Masseeh Hall- opened up. Before that, MIT had called for student volunteers to shape a culture and create a community for the new dorm before the dorm was opened up. 50 students are part of this "incubator" group and called themselves "the Phoenix group."

The Phoenix group consisted of 50 undergraduates who in 2010, all moved into a single dorm on campus with the idea of harvesting strong relationships, friendships, and creating a community for the new dorm, Maseeh Hall. The students had a lot of say during the renovations of the new dormitory, including critical decisions on design and decoration of the new building.

Source:

<http://web.mit.edu/newsoffice/2010/maseeh-hall-tour.html>

**A brief description of how the institution is using the campus as a living laboratory for Dining Services/Food and the positive outcomes associated with the work:**

- In 2010, MIT students were able to change the standard styrofoam and/or plastic food containers in the undergraduate dorm cafeterias (4 dining halls total) with green "reusable" containers. The system implemented is as follows: each student gets a green container, they fill it with food. When the container is empty, they drop it off at the cafeteria and when a new clean one. The containers are very durable so are never thrown away- merely reused. The program has been very successful and is now implemented in all the dining halls in the undergraduate dormitories.

One source:

<http://web.mit.edu/newsoffice/2010/next-house-green-boxes.html>

**A brief description of how the institution is using the campus as a living laboratory for Energy and the positive outcomes associated with the work:**

In spring 2012, the Department of Facilities tapped one of MIT's greatest resources—its students—to learn more about electricity consumption on campus.

Working with Lecturer Stephen A. Hammer of the Department of Urban Studies and Planning, Facilities tasked a team of undergraduates to conduct a study of plug load on campus—the energy consumed by the appliances and electronic devices plugged into outlets.

Erica Lai '14, a materials science major who is minoring in energy studies, teamed up with Jennifer Liu '14, an electrical engineering and computer science major, to conduct the study, which involved metering outlets and analyzing usage in E62, the new Sloan School of Management building.

The students presented their work to Executive Vice President and Treasurer Israel Ruiz and other members of the CETF in May, and the work was very well received. "The rigorous, data-driven, student-led research projects open up a myriad of exciting opportunities to expand the good work of the Campus Energy Task Force and increase the range of energy efficiencies on campus," says Ruiz, CETF co-chair. "The students did a great job."

Source:

<http://mitei.mit.edu/news/undergrad-project-offers-glimpse-what-mit-plugging>

**A brief description of how the institution is using the campus as a living laboratory for Grounds and the positive outcomes associated with the work:**

Charles River Cleanup

Sponsor: MIT Sea Grant

Description: MIT Sea Grant volunteers are gathering this year on the banks of the Charles River outside Weld Boathouse in Cambridge to participate in the 14th Annual Charles River Cleanup! We will join other volunteers in picking up trash along the grassy areas and sidewalks on the Cambridge side of the Charles River. Supplies, including gloves and trashbags, along with a snack will be provided.

<http://earthdaychallengemit.wordpress.com/action-projects-2013-2/>

**A brief description of how the institution is using the campus as a living laboratory for Purchasing and the positive outcomes associated with the work:**

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**A brief description of how the institution is using the campus as a living laboratory for Transportation and the positive outcomes associated with the work:**

Two years ago, MIT undergraduate Paige Finkelstein survived a potentially deadly biking accident because she was wearing a helmet. To help keep other cyclists safe, Finkelstein founded Project Helmet, an initiative to distribute free bike helmets to the MIT community — which has seen rapid success.

Finkelstein started the program during this year's Independent Activities Period, earning a grant for 80 bike helmets and producing a campus-wide ad campaign that even attracted participation from MIT President L. Rafael Reif.

The project's success culminated at the annual Transportation Fair in the Stata Center on March 13, where Finkelstein set up a Project Helmet booth with sister, Ali, an MIT freshman, and gave away all 80 of the initial helmets to MIT cyclists — in roughly 15 minutes.

Source:

<http://web.mit.edu/newsoffice/2013/safety-first-and-free-project-helmet.html>

**A brief description of how the institution is using the campus as a living laboratory for Waste and the positive outcomes associated with the work:**

MIT has several student groups focused on sustainability efforts. In particular, the Undergraduate Association (UA) Sustainability Committee researches, plans, and executes sustainability initiatives on campus every semester. Some of these initiatives focus on campus operations. One of the projects currently been pursued by the UA Sustainability committee is to talk to all the food vendors on campus to [STARS Reporting Tool](#) | [AASHE](#)

use compostable bins for leftover food and scraps. The team is also trying to put these compostable pins around campus as well (akin to trash cans) to give the composting efforts of campus operations more visisbility.

**A brief description of how the institution is using the campus as a living laboratory for Water and the positive outcomes associated with the work:**

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**A brief description of how the institution is using the campus as a living laboratory for Coordination, Planning & Governance and the positive outcomes associated with the work:**

MIT has several student groups focused on sustainability efforts. In particular, the Undergraduate Association (UA) Sustainability Committee researches, plans, and executes sustainability initiatives on campus every semester. Some of these initiatives focus on campus operations, while others focus on campus administration as well. In terms of administration, the UA Sustainability committee is currently pushing and working with MIT to push the university to establish the MIT Environmental Initiative.

**A brief description of how the institution is using the campus as a living laboratory for Diversity & Affordability and the positive outcomes associated with the work:**

There are several avenues for students at MIT to use the university to try out ideas and implement on campus. As an example in the Diversity & Affordability domain, there is the highly-visible "You are Welcome Here" Campaign. This campaign mails out over 12,000 index cards every year to all professors and staff. The cards have a rainbow on it, and a message that reads "You are welcome here." Professors, staff, students, and all members of the MIT community can ask for a free card, and are encouraged to display it in their offices, dorms room, and other spaces. The card's intent is to send a message of inclusion to all members of the LGBT community at MIT.

Source 1:

<http://alum.mit.edu/pages/sliceofmit/2010/12/10/you-are-welcome-here-campaign/>

Source 2:

<http://web.mit.edu/newsoffice/2010/lbgtmit-yawh.html>

**A brief description of how the institution is using the campus as a living laboratory for Health, Wellbeing & Work and the positive outcomes associated with the work:**

MIT has an active "Active Minds" student-led and run organizations. This groups is:

- A student-led initiative for better health and wellness, stress relief, and health education
- Students who use peer-to-peer outreach for health advocacy and education with a focus on mental health
- A liaison between students and the administration/mental health community

The group brings "therapy dogs" to campus once a semester. All students are invited to come. The therapy dogs are specially used during particularly stressful times, such as after the Boston marathon bombings, and during finals week.

Source:

<http://activeminds.mit.edu/main.html>

**A brief description of how the institution is using the campus as a living laboratory for Investment and the positive outcomes associated with the work:**

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**A brief description of how the institution is using the campus as a living laboratory for Public Engagement and the positive outcomes associated with the work:**

There are several organizations on campus that incentivize students to become involved with public engagement and do a project of their own. For example, the Public Service Center - this group grants funds to students who wish to do a community service project either in the Boston area, in the states, or even abroad.

Furthermore, students can apply to a variety of groups for funding to start their own projects involving the community at large. Below is one of them:

Amphibious Achievement teaches valuable lessons in and out of the water: MIT student group works with Boston high school students on academic and athletic skills

Amphibious Achievement is a dual athletic and academic program for urban youth in the Boston area. Our goal is to promote success in and out of the water through a combination of aquatic instruction and college preparatory tutoring. Our approach is to enhance achievement through mind-body learning as well as innovative and high quality mentorship.

. The goal of the program is to promote "success in and out of the water" through aquatic sports, generally inaccessible to inner-city high school youth, and through SAT-based tutoring.

This connection between athletics and academics was what two MIT sophomores, Noam Angrist and Ron Rosenberg, were looking to tap into when they founded Amphibious Achievement. Both Angrist and Rosenberg have been coaches and athletes in crew and swimming, respectively, throughout their lives. As athletes, they learned about the benefits of sport first hand. As coaches, the benefits became even clearer.

"We wanted to latch on to the spillover effects of athletics in a meaningful way," Angrist said. "We realized, however, that there wasn't a program [at MIT] that provided that outlet. So, we created one."

<http://web.mit.edu/newsoffice/2011/amphibious-achievement.html>



<http://amphibious.mit.edu>

<http://web.mit.edu/mitpsc/>

**A brief description of how the institution is using the campus as a living laboratory in Other areas and the positive outcomes associated with the work:**

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**The website URL where information about the institution's campus as a living laboratory program or projects is available:**

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# Research

This subcategory seeks to recognize institutions that are conducting research on sustainability topics. Conducting research is a major function of many colleges and universities. By researching sustainability issues and refining theories and concepts, higher education institutions can continue to help the world understand sustainability challenges and develop new technologies, strategies, and approaches to address those challenges.

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## **From the institution:**

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. Among MIT's historical achievements:

Achieving the first chemical synthesis of penicillin

Developing inertial guidance systems for the Apollo space program

Pioneering high-speed photography

Engineering practical microwave radar

Building the magnetic core memory that made digital computers possible

Developing the world's first biomedical prosthetic device

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

Genetically reprogramming skin cells to cure a mouse model of sickle-cell anemia

Developing a new form of wireless power transmission

Inventing a way to duplicate photosynthesis in order to store solar energy

Re-engineering viruses to produce both ends of a lithium ion battery

Finding a way to use RNA interference to silence multiple genes at once

Designing computer techniques that automatically decipher ancient languages

Engineering a soft autonomous earthworm-like robot that can inch away unscathed even when stepped upon

Discovering evidence of water ice and organic material on Mercury

Developing ceramics that bend without breaking

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 the junior colleagues of Institute faculty.

During the academic year, approximately 3,750 researchers (including 574 visiting faculty and scientists) work with MIT faculty and students on projects funded by government, foundations, and industry. Approximately 2,550 graduate students are primarily supported as research assistants and 610 are appointed as teaching assistants; 1,675 are supported on fellowships.

As an institution, MIT encourages interdisciplinary research across department and school boundaries while focusing on tackling great challenges for society at large. Two examples of such initiatives include the MIT Energy Initiative (MITEI) and the David H. Koch Institute for Integrative Cancer Research.

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.

<b>Credit</b>
Academic Research
Support for Research
Access to Research

## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### *Part 1*

Institution's faculty and/or staff conduct sustainability research and the institution makes an inventory of its sustainability research publicly available.

### *Part 2*

Institution's academic departments (or the equivalent) include faculty and staff who conduct sustainability research.

Any level of sustainability research is sufficient to be included for this credit. In other words, a researcher who conducts both sustainability research and other research may be included.

In order to report for this credit, the institution should conduct an inventory to identify its sustainability research activities and initiatives.

Each institution is free to choose a methodology to identify sustainability research that is most appropriate given its unique circumstances. For example, an institution may distribute a survey to all faculty members and ask them to self-identify as being engaged in sustainability research or ask the chairperson of each department to identify the sustainability research activities within his or her department. The research inventory should be based on the definition of "sustainability research" outlined in Standards and Terms and include, at minimum, all research centers, laboratories, departments, and faculty members whose research focuses on or is related to sustainability.

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*"---" indicates that no data was submitted for this field*

### **Number of the institution's faculty and/or staff engaged in sustainability research:**

574

### **Total number of the institution's faculty and/or staff engaged in research:**

1,007

### **Number of academic departments (or the equivalent) that include at least one faculty or staff member that conducts sustainability research:**

29

### **The total number of academic departments (or the equivalent) that conduct research:**

**A copy of the sustainability research inventory that includes the names and department affiliations of faculty and staff engaged in sustainability research:**

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**Names and department affiliations of faculty and staff engaged in sustainability research:**

<http://mitei.mit.edu/research/energy-faculty>

<http://mitsloan.mit.edu/sustainability/faculty>

**A brief description of the methodology the institution followed to complete the research inventory:**

To understand the research happening at MIT, the Office of Sustainability reached out to two groups within MIT. First, data was obtained from the Office for Institutional Research to understand faculty research topics as represented in their own descriptions of their work. To confirm these numbers and the specific interested faculty, information was obtained from the administrative officers from all departments about sustainability research occurring within their jurisdiction.

**A brief description of notable accomplishments during the previous three years by faculty and/or staff engaged in sustainability research:**

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**The website URL where information about sustainability research is available:**

<http://sustainability.mit.edu/education-research/research-innovation>

## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution encourages and/or supports sustainability research through one or more of the following:

- An ongoing program to encourage students in multiple disciplines or academic programs to conduct research in sustainability. The program provides students with incentives to research sustainability. Such incentives may include, but are not limited to, fellowships, financial support, and mentorships. The program specifically aims to increase student sustainability research.
  - An ongoing program to encourage faculty from multiple disciplines or academic programs to conduct research in sustainability topics. The program provides faculty with incentives to research sustainability. Such incentives may include, but are not limited to, fellowships, financial support, and faculty development workshops. The program specifically aims to increase faculty sustainability research.
  - Formally adopted policies and procedures that give positive recognition to interdisciplinary, transdisciplinary, and multidisciplinary research during faculty promotion and/or tenure decisions.
  - Ongoing library support for sustainability research and learning in the form of research guides, materials selection policies and practices, curriculum development efforts, sustainability literacy promotion, and e-learning objects focused on sustainability.
- 

"---" indicates that no data was submitted for this field

## Does the institution have a program to encourage student sustainability research that meets the criteria for this credit?:

Yes

## A brief description of the institution's program(s) to encourage student research in sustainability:

The MIT Energy Initiative (MITEI) was built according to a template laid out in the 2006 Report of the Energy Research Council commissioned by President Hockfield. The report called for new approaches to multidisciplinary research, education across school and department boundaries, a more energy efficient campus reached in part through student-led projects, and outreach to the policy world through technically grounded analysis. It also emphasized the importance of another MIT strength – partnering with industry as a prime locus for the clean energy transformation needed to address economic, environmental, and security concerns associated with the current energy system.

MIT Energy Initiative includes fellowships for graduate students, and paid research opportunities for both undergrad and graduate students.

Source 1:

Source 2:

[http://mitei.mit.edu/system/files/2012\\_UROP.pdf](http://mitei.mit.edu/system/files/2012_UROP.pdf)

Source 3:

<http://mitei.mit.edu/system/files/project-descriptions.pdf>

**The website URL where information about the student research program is available:**

<http://mitei.mit.edu/education/undergraduate-research>

**Does the institution have a program to encourage faculty sustainability research that meets the criteria for this credit?:**

Yes

**A brief description of the institution's program(s) to encourage faculty research in sustainability:**

The MIT Energy Initiative Seed Fund Program supports innovative, early-stage research across the energy spectrum, encouraging researchers from throughout MIT's five schools to collaborate in exploring new energy-related ideas and to open up new avenues for research. Each year, the program attracts well-established energy experts as well as new faculty who need startup support and others who are applying their expertise in different fields to energy for the first time.

To date the program has provided about \$15.8 million for 129 early-stage research projects in 29 different departments, labs and centers across campus.

**The website URL where information about the faculty research program is available:**

<http://mitei.mit.edu/research/seed-fund-program>

**Has the institution formally adopted policies and procedures that give positive recognition to interdisciplinary, transdisciplinary, and multidisciplinary research during faculty promotion and/or tenure decisions?:**

Yes

**A brief description or the text of the institution's policy regarding interdisciplinary research:**

Interdisciplinary, transdisciplinary, and multidisciplinary research is a central and positive characteristic of MIT faculty research. Therefore, it is strongly considered among many aspects during faculty promotion and tenure decisions.

**The website URL where information about the treatment of interdisciplinary research is available:**

<http://web.mit.edu/facts/research.html>

**Does the institution provide ongoing library support for sustainability research and learning that meets the criteria for this credit?:**

Yes

**A brief description of the institution's library support for sustainability research and learning:**

MIT Libraries publishes online research guides across a wide range of research areas. Each guide includes information on recent news, peer-reviewed research, policy changes, specific data sources that are useful to the topic, etc. In addition to these online resources, expert library staff are available for each study area to provide practical guidance for the research and learning process.

Sustainability research is supported through the guides covering atmospheric sciences, building technology, energy, environment, environmental engineering, sustainable business, etc. Example guides can be referenced below:

<http://libguides.mit.edu/atmos>

<http://libguides.mit.edu/envi>

<http://libguides.mit.edu/sustainablebusiness>

**The website URL where information about the institution's library support for sustainability is available:**

<http://libraries.mit.edu/experts/>



## Responsible Party

TBD TBD  
TBD  
Office of the Registrar

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## Criteria

Institution has a formally adopted open access policy that ensures that versions of all future scholarly articles by faculty and staff and all future theses and dissertations are deposited in a designated open access repository.

The open access repository may be managed by the institution or the institution may participate in a consortium with a consortial and/or outsourced open access repository.

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*"---" indicates that no data was submitted for this field*

## Total number of institutional divisions (e.g. schools, colleges, departments) that produce research:

5

## Number of divisions covered by a policy assuring open access to research:

5

## A brief description of the open access policy, including the date adopted and repository(ies) used:

The open access policy, which was approved unanimously at an MIT faculty meeting on March 18, 2009 and took immediate effect, emphasizes MIT's commitment to disseminating the fruits of its research and scholarship as widely as possible. This policy applies university-wide, across all 5 schools.

Under the policy, faculty authors give MIT nonexclusive permission to disseminate their journal articles for open access through DSpace (

<http://dspace.mit.edu/>

), an open-source software platform developed by the MIT Libraries and Hewlett Packard and launched in 2002. The policy gives MIT and its faculty the right to use and share the articles for any purpose other than to make a profit. Authors may opt out on a paper-by-paper basis.

MIT's policy was the first faculty-driven, university-wide initiative of its kind in the United States and it was the first to fully implement the policy university-wide as a result of a faculty vote.

## A copy of the open access policy:

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**The open access policy:**

The Faculty of the Massachusetts Institute of Technology is committed to disseminating the fruits of its research and scholarship as widely as possible. In keeping with that commitment, the Faculty adopts the following policy: Each Faculty member grants to the Massachusetts Institute of Technology nonexclusive permission to make available his or her scholarly articles and to exercise the copyright in those articles for the purpose of open dissemination. In legal terms, each Faculty member grants to MIT a nonexclusive, irrevocable, paid-up, worldwide license to exercise any and all rights under copyright relating to each of his or her scholarly articles, in any medium, provided that the articles are not sold for a profit, and to authorize others to do the same. The policy will apply to all scholarly articles written while the person is a member of the Faculty except for any articles completed before the adoption of this policy and any articles for which the Faculty member entered into an incompatible licensing or assignment agreement before the adoption of this policy. The Provost or Provost's designate will waive application of the policy for a particular article upon written notification by the author, who informs MIT of the reason.

To assist the Institute in distributing the scholarly articles, as of the date of publication, each Faculty member will make available an electronic copy of his or her final version of the article at no charge to a designated representative of the Provost's Office in appropriate formats (such as PDF) specified by the Provost's Office.

The Provost's Office will make the scholarly article available to the public in an open-access repository. The Office of the Provost, in consultation with the Faculty Committee on the Library System, will be responsible for interpreting this policy, resolving disputes concerning its interpretation and application, and recommending changes to the Faculty. The policy is to take effect immediately; it will be reviewed after five years by the Faculty Policy Committee, with a report presented to the Faculty.

The faculty calls upon the Faculty Committee on the Library System to develop and monitor a plan for a service or mechanism that would render compliance with the policy as convenient for the faculty as possible.

**The website URL where the open access repository is available:**

<http://libraries.mit.edu/scholarly/mit-open-access/open-access-at-mit/mit-open-access-policy/>

**A brief description of how the institution's library(ies) support open access to research:**

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**The website URL where information about open access to the institution's research is available:**

<http://libguides.mit.edu/dspace>

# Engagement

## Campus Engagement

This subcategory seeks to recognize institutions that provide their students with sustainability learning experiences outside the formal curriculum. Engaging in sustainability issues through co-curricular activities allows students to deepen and apply their understandings of sustainability principles. Institution-sponsored co-curricular sustainability offerings, often coordinated by student affairs offices, help integrate sustainability into the campus culture and set a positive tone for the institution.

In addition, this subcategory recognizes institutions that support faculty and staff engagement, training, and development programs in sustainability. Faculty and staff members' daily decisions impact an institution's sustainability performance. Equipping faculty and staff with the tools, knowledge, and motivation to adopt behavior changes that promote sustainability is an essential activity of a sustainable campus.

<b>Credit</b>
Student Educators Program
Student Orientation
Student Life
Outreach Materials and Publications
Outreach Campaign
Employee Educators Program
Employee Orientation
Staff Professional Development

# Student Educators Program

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability

Office of Sustainability

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## Criteria

Institution coordinates an ongoing peer-to-peer sustainability outreach and education program for degree-seeking students. The institution:

- Selects or appoints students to serve as educators and formally designates the students as educators (paid and/or volunteer),
- Provides formal training to the educators in how to conduct outreach, and
- Offers faculty or staff and/or other financial support to the program.

This credit focuses on programs for degree-seeking students enrolled in a for-credit program. Continuing education and/or non-credit students are excluded from this credit.

This credit recognizes ongoing student educator programs that engage students on a regular basis. For example, student educators may be responsible for serving (i.e. directly targeting) a particular subset of students, such as those living in residence halls or enrolled in certain academic subdivisions. Thus, a group of students may be served by a program even if not all of these students avail themselves of the outreach and education offerings.

Sustainability outreach campaigns, sustainability events, and student clubs or groups are not eligible for this credit unless the criteria outlined above are met. These programs are covered by *EN 5: Outreach Campaign* and *EN 3: Student Life*.

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### Submission Note:

There are 170 current Green Ambassadors. An estimate of 1 hr/week, and measuring the school year at 38 weeks, that leaves a grand total of:

$170 * 1 * 38 = 6460$  hours per year

"---" indicates that no data was submitted for this field

**Does the institution coordinate one or more ongoing student, peer-to-peer sustainability outreach and education programs that meet the criteria for this credit?:**

Yes

**Number of degree-seeking students enrolled at the institution:**

**Name of the student educators program (1st program):**

The Green Ambassadors Program

**Number of students served (i.e. directly targeted) by the program (1st program):**

11,189

**A brief description of the program, including examples of peer-to-peer outreach activities (1st program):**

The Green Ambassadors program is a volunteering program in which students, staff, and faculty members can participate in. The program aims to use volunteers to speak and act as "ambassadors" of sustainability practices throughout the MIT campus.

"The Green Ambassadors program seeks to help establish MIT as a model of community-engaged sustainability through strengthening our sustainability community, providing and sharing critical information and knowledge, driving 'place-based' action, supporting collaboration, and sharing best practices," says Steven M. Lanou, deputy director for environmental sustainability and a member of the Campus Energy Task Force of the MIT Energy Initiative.

There are currently 170+ Green Ambassadors across campus. The Green Ambassadors program helps individuals share information and enables best practices that can make a difference. "At a basic level, Green Ambassadors show by example the choices and practices that can be adopted to have an impact," Lanou says. His office coordinates the development of outreach and educational material as well as networking tools. Lanou's staff, along with an active and engaged steering committee of student and staff volunteers, hosts events to strengthen the network and helps Green Ambassadors identify "greening" opportunities.

Examples of peer-to-peer outreach activities: posting stickers to turn off the lights, put recycling bins around, etc. GreeningMIT has created a Sustainability Tool Kit to help students, faculty, staff, and the community to "green" labs, dorms, and offices. Below are some ideas and resources to get started:

- View or print handout for tips on being green around MIT
- View or print handout for tips for students living green at MIT
- Greening Your Department Implementation Plan (pdf)
- Office Audit (doc)
- Planning your Efforts Checklist (doc)
- Information to Drive More Sustainable Office Practices (pdf)
- Resources to Drive More Sustainable Practices at MIT (pdf)
- Minimizing Environmental Impacts in the Lab (pdf)
- Lab Recycling Guidelines (doc)
- Lab Sustainability FAQ (doc)

For more info:

<http://ehs.mit.edu/site/content/green-ambassadors-program>

**A brief description of how the student educators are selected (1st program):**

Any student, professor, or faculty member of MIT can sign up to be a green ambassador on a volunteer basis.  
[STARS Reporting Tool](#) | [AASHE](#)

**A brief description of the formal training that the student educators receive (1st program):**

While the student educators do not receive any official orientation, there is a "starting package" available to all potential volunteers online. The starting package gives idea to the volunteers as to how to get started.

**A brief description of the financial or other support the institution provides to the program (1st program):**

The Green Ambassadors Program is an initiative by the Campus Energy Task Force, which in turn is a program under the MIT Energy Initiative. The Campus Energy Task Force provides the Green Ambassadors Program which support in the form of publicity materials, training, and support network.

**Name of the student educators program (2nd program):**

N/A

**Number of students served (i.e. directly targeted) by the program (2nd program):**

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**A brief description of the program, including examples of peer-to-peer outreach activities (2nd program):**

N/A

**A brief description of how the student educators are selected (2nd program):**

N/A

**A brief description of the formal training that the student educators receive (2nd program):**

N/A

**A brief description of the financial or other support the institution provides to the program (2nd program):**

N/A

**Name of the student educators program (3rd program):**

N/A

**Number of students served (i.e. directly targeted) by the program (3rd program):**

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**A brief description of the program, including examples of peer-to-peer outreach activities (3rd program):**

N/A

**A brief description of how the student educators are selected (3rd program):**

N/A

**A brief description of the formal training that the student educators receive (3rd program):**

N/A

**A brief description of the financial or other support the institution provides to the program (3rd program):**

N/A

**Name(s) of the student educator program(s) (all other programs):**

N/A

**Number of students served (i.e. directly targeted) by all other student educator programs:**

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**A brief description of the program(s), including examples of peer-to-peer outreach activities (all other programs):**

N/A

**A brief description of how the student educators are selected (all other programs):**

N/A

**A brief description of the formal training that the student educators receive (all other programs):**

N/A

**A brief description of the financial or other support the institution provides to the program (all other programs):**

N/A

**Total number of hours student educators are engaged in peer-to-peer sustainability outreach and education activities annually:**

6,460

**The website URL for the peer-to-peer student outreach and education program(s):**

<http://ehs.mit.edu/site/content/green-ambassadors-program>



## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution includes sustainability prominently in its student orientation activities and programming. Sustainability activities and programming are intended to educate about the principles and practices of sustainability. The topics covered include multiple dimensions of sustainability (i.e. social, environmental and economic).

Because orientation activities vary from one institution to another, prominent inclusion of sustainability may not take the same form on each campus. Prominent inclusion of sustainability may also take different forms for different types of students (e.g. undergraduate students, transfer students, graduate students). When reporting for this credit, each institution will determine what prominent inclusion of sustainability means given its particular context. (See the Credit Example in the STARS Technical Manual.)

As this credit is intended to recognize programming and student learning about sustainability, incorporating sustainability strategies into event planning (e.g. making recycling bins accessible or not serving bottled water) is not, in and of itself, sufficient for this credit. Such strategies may count if they are highlighted and are part of the educational offerings. For example, serving local food would not, in and of itself, be sufficient for this credit; however, serving local food and providing information about sustainable food systems during meals could contribute to earning this credit.

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### Submission Note:

The information related here was compiled from the people in charge of running each of the 4 types of orientation programs described above (domestic undergraduate, international undergraduate, transfer undergraduate, and graduate.)

- Domestic undergraduate - UAAP (Office of Undergraduate Advising & Academic Programming)
- International undergraduate - ISO (International Student Office)
- Transfer undergraduate - UAAP (Office of Undergraduate Advising & Academic Programming)
- Graduate - GSC (Graduate Student Council)

"---" indicates that no data was submitted for this field

**The percentage of entering students that are provided an opportunity to participate in orientation activities and programming that prominently include sustainability:**

100

**A brief description of how sustainability is included prominently in new student orientation:**

The MIT Energy Initiative offers all incoming undergraduate students the opportunity to participate in their sustainability related freshman pre-orientation program (FPOP) Discover Energy: Learn, Think, Apply (DELTA). The DELTA FPOP acquaints entering freshmen with the wide range of energy-related activities at MIT, introduces them to important topics within the energy arena, and helps them to get to know each other and current MIT students active in energy.

Student Orientation at MIT is broken down into 4 programs: Domestic Undergraduate, International Undergraduate, Transfer undergraduate, and Graduate. The number of incoming students vary slightly per year but average the following numbers:

~1,015 domestic undergraduates

~110 international undergraduates

~20 transfer undergraduates

~1,695 graduates

All undergraduates (~1,145) are required to attend orientation. Graduate students are not required but many attend regardless in order to get better acquainted with their new university.

Graduate Student orientation programs offers sustainability-focused activities available to all. These include the following:

- booths handing out flyers and other advertisement related to sustainability programs on campus
- volunteer-day where students could volunteer in environmentally-related activities such as helping to clean up waste from the Charles River, or helping plant trees in nearby arboretums.

**The website URL where information about sustainability in student orientation is available:**

<http://mitei.mit.edu/education/freshman-pre-orientation>

## Responsible Party

**TBD TBD**  
TBD  
Office of the Registrar

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## Criteria

Institution has co-curricular sustainability programs and initiatives. The programs and initiatives fall into one or more of the following categories:

- Active student groups focused on sustainability
- Gardens, farms, community supported agriculture (CSA) or fishery programs, and urban agriculture projects where students are able to gain experience in organic agriculture and sustainable food systems
- Sustainable enterprises that include sustainability as part of their mission statements or stated purposes (e.g. cafés through which students gain sustainable business skills)
- Sustainable investment funds, green revolving funds or sustainable microfinance initiatives through which students can develop socially, environmentally and fiscally responsible investment and financial skills
- Conferences, speaker series, symposia or similar events related to sustainability that have students as the intended audience
- Cultural arts events, installations or performances related to sustainability that have students as the intended audience
- Wilderness or outdoors programs (e.g. that organize hiking, backpacking, kayaking, or other outings for students and follow Leave No Trace principles)
- Sustainability-related themes chosen for themed semesters, years, or first-year experiences (e.g. choosing a sustainability-related book for common reading)
- Programs through which students can learn sustainable life skills (e.g. a series of sustainable living workshops, a model room in a residence hall that is open to students during regular visitation hours and demonstrates sustainable living principles, or sustainability-themed housing where residents and visitors learn about sustainability together)
- Sustainability-focused student employment opportunities offered by the institution
- Graduation pledges through which students pledge to consider social and environmental responsibility in future job and other decisions
- Other co-curricular sustainability programs and initiatives

Multiple programs and initiatives may be reported for each category and each category may include institution-governed and/or student-governed programs.

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"---" indicates that no data was submitted for this field

**Does the institution have one or more co-curricular sustainability programs and initiatives that fall into the following categories?:**

	<b>Yes or No</b>
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<b>Active student groups focused on sustainability</b>	Yes
<b>Gardens, farms, community supported agriculture (CSA) or fishery programs, or urban agriculture projects where students are able to gain experience in organic agriculture and sustainable food systems</b>	Yes
<b>Student-run enterprises that include sustainability as part of their mission statements or stated purposes</b>	Yes
<b>Sustainable investment funds, green revolving funds or sustainable microfinance initiatives through which students can develop socially, environmentally and fiscally responsible investment and financial skills</b>	Yes
<b>Conferences, speaker series, symposia or similar events related to sustainability that have students as the intended audience</b>	Yes
<b>Cultural arts events, installations or performances related to sustainability that have students as the intended audience</b>	Yes
<b>Wilderness or outdoors programs that follow Leave No Trace principles</b>	Yes
<b>Sustainability-related themes chosen for themed semesters, years, or first-year experiences</b>	No
<b>Programs through which students can learn sustainable life skills</b>	No
<b>Sustainability-focused student employment opportunities offered by the institution</b>	Yes
<b>Graduation pledges through which students pledge to consider social and environmental responsibility in future job and other decisions</b>	No
<b>Other co-curricular sustainability programs and initiatives</b>	No

**The name and a brief description of each student group focused on sustainability:**

1. Sustainability @ MIT:

Sustainability@MIT is a collective of students and MIT community members that work to improve sustainability on campus and beyond by providing resources, hosting events, and supporting other sustainability-related groups and initiatives on campus. Members coordinate and support these efforts in order to foster student and staff engagement and realize ideas to make the campus a healthier and more sustainable place.

2. Undergraduate Association Committee on Sustainability

The Committee on Sustainability strives to generate interest, awareness, and action in sustainability on campus by raising awareness, fostering good habits, providing resources, and driving policy changes. This committee regularly interfaces with campus staff and administrators to identify and seize opportunities for improvement in the areas of composting, waste reduction, and energy conservation. This committee also works with other like-minded student groups from MIT and other universities to promote awareness and sustainable behavior through events and competitions. Past and present projects include the Trashion Show, RecycleMania, Dorm Electricity Competition, and Composting Initiative. This committee dreams of making MIT the most sustainable campus in the world.

3. MIT Energy Club:

The Energy & Environment community aims to bridge the gap between energy and environmental issues by providing a fresh and fact-based platform for energy enthusiasts, scholars, policy makers and experts in the field.

4. Graduate Student Council Sustainability

In 2010-2011, the Graduate Student Council initiated a Sustainability Task Force to think strategically about how we as an organization can contribute to a sustainable future. The Task Force culminated in a report, which was presented at the May, 2011, General Council Meeting. In response to the report, and in light of a general commitment to advancing sustainability within the organization and across MIT, the GSC has announced the creation of a Sustainability Subcommittee.

<http://sustainabilityatmit.wordpress.com/>

;

<http://www.mitenergyclub.org/>

;

<http://ua.mit.edu/people/committees/#sustainability>

;

<http://gsc.mit.edu/committees/hca/sustainability/>

**The website URL where information about student groups is available:**

<http://sustainability.mit.edu/>

**A brief description of gardens, farms, community supported agriculture (CSA) or fishery programs, and urban**

## **agriculture projects where students are able to gain experience in organic agriculture and sustainable food systems:**

In the MIT Media Lab, the group CityFARM promotes urban agriculture research and projects:

At the MIT CityFARM, we're rediscovering MIT's roots and inventing the future of agriculture using cutting edge engineering, big data, and network connectivity. With a planet home to 9.6 billion people by 2050, our ability to grow food sustainably at scale will be essential to maintaining global prosperity.

Some ongoing projects in the CityFARM Lab include:

### 1. Urban Agricultural Systems Research

At the MITCityFARM plant lab we are exploring what it means technologically, environmentally, socially and economically to design industrially scalable agricultural systems in the heart of urban areas.

Through innovative research and development of hydroponic, aquaponic and aeroponic systems, novel diagnostic and networked sensing, building integration, data driven optimization and reductive energy design; MITCityFARM methodology has the potential to reduce water consumption for agriculture by 98%, eliminate chemical fertilizers and pesticides and reduce embodied energy in produce by a factor of four. By fundamentally rethinking "grow it THERE and eat it HERE" we will reduce environmental externality and contamination, create jobs for a rapidly urbanizing global workforce and ultimately increase access to diverse and affordable nutrient dense produce in our future cities.

### 2. MIT Media Lab Agricultural Facade Laboratory

The Urban Agriculture Facade takes our existing research in the area and combines it with architectural research on light and spatial dynamics. Whereas most hydroponic and aeroponic systems rely specifically on internal light sources and dedicated space, this project is a unique exploration of how these systems can fit into non-traditional settings - turning them into producers of agriculture. Given the high cost of securing urban real estate, an exploration of what is possible in areas such as this become an important segway into the conversation of the future of urban agriculture. With the help of sponsors, we hope to integrate our vision into the Media Lab and begin construction in January of 2014

### 3. Big Data/Precision Agriculture

We take the view that a link between urban and rural agriculture is a must if we are to adequately meet our food needs over the course of the next few decades.

This project leverages satellite imagery and other large datasets to help farmers in rural areas better manage the quality, hydration levels, and shrinkage of their crops with targeted short messages (SMS) prior to predicted crop failure. The data generated can also be used to help cities dynamically address crop shortages by repurposing existing urban farms.

The real benefits are apparent for developing countries such as Pakistan which have had flat crop yields for over a decade despite sustaining almost a 100% increase in population. Combined with floods from the melting of Himalayan glaciers, food insecurity can plague up to 75% of the population. By democratizing crop conditions and making it available to the average farmer, we hope to push the needle with respect to crop yields.

### 4. Open Agriculture Initiative

Where does one find good nutritional uptake studies for lettuce? Where does one find data on crop yields in Ghana? This information is extremely opaque and difficult to find. The Open Agriculture Initiative seeks to change that by providing a platform to global researchers to share their data, discuss their findings, and work to advancing the common cause of improving crop yields globally by making all the

world's agriculture information open and accessible.

Aside from this, MIT has several gardens and garden projects:

1. The MIT Garden Project:

The mission of the MIT Garden project is to provide information on the community food gardens and green space projects started by staff, faculty, students and families on campus. We promote sustainability and positive change for health and the environment by creating new gardens and benefiting from their beauty.

<http://www.mitcityfarm.com/>

<http://mitgardenproject.wordpress.com/2011/06/09/hello-world/>

**The website URL where information about the organic agriculture and/or sustainable food systems projects and initiatives is available:**

<http://www.mitcityfarm.com/>

**A brief description of student-run enterprises that include sustainability as part of their mission statements or stated purposes:**

The Undergraduate Association (UA) Committee on Sustainability organizes an annual Fashion Show called "Trashion Show" whose main focus is sustainability. The Trashion Show calls for students to design a dress made entirely of recycled materials. Students can also sign up to model the dresses in a cat-walk style show. Tickets are sold to the general public. The show aims to raise awareness about recycling waste, repurposing trash, and environmental sustainability. This event was started in 2011 and has taken place every year since then.

**The website URL where information about the student-run enterprise(s) is available:**

<http://web.mit.edu/newsoffice/2011/garbage-to-glamorous-1220.html>

**A brief description of the sustainable investment or finance initiatives:**

1. The Legatum Center

The Legatum Center for Development and Entrepreneurship catalyzes entrepreneurship for broad-based prosperity in low-income countries. The Center was founded on the belief that economic progress and good governance in low-income countries emerge from entrepreneurship and innovations that empower ordinary citizens.

The Center administers programs and convenes events that promote and shape discourse on bottom-up development. Led by Iqbal Z. Quadir, founder of Grameenphone and Emergence BioEnergy, the Center administers a competitive fellowship program for incoming and current MIT students, from across all academic and professional disciplines, who have demonstrated the potential and commitment to [STARS Reporting Tool](#) | [AASHE](#)

create innovative and inclusive enterprises in low-income countries. In addition, the Center convenes an annual conference, hosts lectures, and supports teams of enterprising men and women at MIT who are passionate about starting viable businesses in the developing world.

The Legatum Center seed grants are intended to assist teams in developing for-profit, sustainable enterprises in low-income countries. These grants fund market research, travel, accommodations, project scoping, and pilot studies or proofs of concept.

## 2. J-PAL

The Abdul Latif Jameel Poverty Action Lab (J-PAL) was established in 2003 as a research center at the Economics Department at the Massachusetts Institute of Technology. Since then, it has grown into a global network of researchers who use randomized evaluations to answer critical policy questions in the fight against poverty.

Finance & Microfinance group at J-PAL:

J-PAL's Finance Program brings together leading academics to expand both the understanding of how household and firms demand and use financial services and how financial service providers perform and engage in the market. The program is especially interested in recent financial innovations that are improving the quantity and quality of financial access for all levels of financial actors.

Recent evidence suggests that product innovations, new contract structures, and regulation can be effective tools for overcoming market failures. With public, private, and nonprofit institutions working to increase financial access around the world, the time is right to explore new ideas, expand conceptual frameworks, and collect compelling evidence in order to better understand financial constraints, especially among the poor, as well as the implications of alternative policy strategies.

<https://legatum.mit.edu/about-us>

<http://www.povertyactionlab.org/>

<http://www.povertyactionlab.org/finance-microfinance>

**The website URL where information about the sustainable investment or finance initiatives is available:**

<https://legatum.mit.edu/about-us>

**A brief description of conferences, speaker series, symposia or similar events related to sustainability that have students as the intended audience:**

The MIT Energy Club bring speaker series, conferences, and symposia to MIT several times a month year-long. Below is a description of some of the flagship events offered. There are many more similar events throughout the year all focused on sustainability. Aside from the MIT Energy Club, several other groups/departments bring conferences and speakers to MIT several times a month to talk about



sustainability to the student populace.

### 1. The MIT Energy Conference

Every year, thought-leaders in energy from technology, policy, industry, and finance descend on MIT for one primary reason: to formulate powerful, productive ideas in the face of a rapidly changing industry.

On February 21st and 22nd, 2014, this year's MIT Energy Conference will focus on engaging the audience by Defining Challenges and Advancing Solutions in the energy space. Across many industries, MIT has merged entrepreneurial risk-taking with technological innovation and scientific breakthrough. Taking on the toughest challenges, MIT's scientists and engineers have pushed the boundaries of the possible and taken ideas from the laboratory to the living room. We want to build on that tradition. The MIT Energy Conference seeks to provide a platform for the most cutting-edge research, the latest industry know-how, and the most innovative business models. Through discussions on specific challenges facing the world today, we explore how energy innovation can make a significant impact on the global energy landscape.

### 2. MIT Energy Night

The MIT Energy Night: the Largest MIT Energy Technology Showcase in the Fall

The MIT Energy Night is a celebration of the ingenuity, innovation, and imagination of MIT faculty, researchers, students, and alumni. Hosted annually at the MIT Museum and organized entirely by students, the MIT Energy Night features over 70 interactive poster presentations from every energy affiliated department at MIT as well as early stage start-ups based on MIT technologies. Presentation topics span conventional energies, renewable energies, energy storage, energy efficiency, and other areas.

### 3. The MIT Clean Energy Prize

The MIT Clean Energy Prize's mission is to be the catalyst for a unified competition to help develop a new generation of energy entrepreneurs and great new companies. This will be achieved by working to stimulate productive relationships between academic, community, industry, and government organizations with strong interests in meeting the world's energy challenge through innovation and entrepreneurship.

<http://mitenergynight.org/>

<http://mitenergyconference.org/>

<http://cep.mit.edu/about-us/mission/>

\*\* All of these 3 events are student governed.

**The website URL where information about the event(s) is available:**

<http://www.mitenergyclub.org/>

**A brief description of cultural arts events, installations or performances related to sustainability that have students as the intended audience:**

1) 2012 Yunus Challenge Art Installation (Trash Into Art @ MIT)

Waste is annually produced in scales of tons on earth. In 2009, the US alone produced 161 million tons of waste (the weight of approximately 71,500 space shuttles). Reducing and reusing this waste would save resources that are otherwise lost. In developing countries, waste and waste systems most profoundly affect the poorest populations. The 2012 Yunus Innovation Challenge calls for innovative solutions to gaining value from waste, including both systems and technologies for improvements in (but not limited to): solid waste management, biowaste, electronic waste, medical equipment waste, wastewater, and industrial scrap, as well as the well-being of wastepickers and their livelihoods. Solutions should be designed for implementation in communities living at or below the poverty level.

Help raise awareness of waste and of its effects on marginalized communities! The goal of the 2012 Yunus Challenge Art Installation is to raise awareness around the value of waste materials such as cardboard, Styrofoam, plastics, metals, and other objects found in a garbage can. A crucial focus is the impact of waste on marginalized people and communities.

Students are challenged to collect pieces of waste from their own lives (and/or from their communities) for a week, and to create a thought-provoking project from materials that would otherwise be thrown away. Finalists' work will be installed and presented on the MIT campus from Mon, April 2 – Fri, April 6. The winner will display their work on Thurs, May 3 at the IDEAS Global Challenge Awards Ceremony.

<http://globalchallenge.mit.edu/events/view/219>

<http://web.mit.edu/idi/yunus.htm>

**The website URL where information about the cultural arts event(s) is available:**

<http://web.mit.edu/newsoffice/of-note.html?id=474>

**A brief description of wilderness or outdoors programs for students that follow Leave No Trace principles:**

MITOC members are students, staff, alumni, and faculty from MIT and the greater academic community who come together for year-round outdoor recreation in the company of other enthusiasts. MITOC members hike, climb, ski, bike, camp, tramp, backpack, snowshoe, and canoe to the highest, widest, most scenic vistas in New England and beyond. Join us for friendship, adventure, and fun.

MITOC offers hiking events several times throughout the year: a monthly, 60-students hiking/climbing trip to the White Mountains in New Hampshire during April to October and snow-hiking and climbing during the winter months in the same region. All trips follow "Leave No Trace" principles, meaning all participants have ziploc/trash bags in their backpacks to put their own trash (everything from

food wrappers, food remains, and event toilet paper.) Nothing is left on the trail, nor is anything taken from the trail, meaning: the path must look exactly the same before and after you passed through.

**The website URL where information about the wilderness or outdoors program(s) is available:**

<http://web.mit.edu/mitoc/www/>

**A brief description of sustainability-related themes chosen for themed semesters, years, or first-year experiences:**

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**The website URL where information about the theme is available:**

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**A brief description of program(s) through which students can learn sustainable life skills:**

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**The website URL where information about the sustainable life skills program(s) is available:**

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**A brief description of sustainability-focused student employment opportunities:**

The MIT Office of Sustainability, is the main office focused on sustainable and green practices in campus. This office offers paid student employment and the students can be involved in a variety of green enterprises including but not limited to: planning Earth Day events, recycling programs, assisting in gathering data to track progress of green campus initiatives, etc

**The website URL where information about the student employment opportunities is available:**

<http://sustainability.mit.edu/whoweare>

**A brief description of graduation pledges through which students pledge to consider social and environmental responsibility in future job and other decisions:**

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**The website URL where information about the graduation pledge program is available:**

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**A brief description of other co-curricular sustainability programs and initiatives:**

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**The website URL where information about other co-curricular sustainability programs and initiatives is available:**

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# Outreach Materials and Publications

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability

Office of Sustainability

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## Criteria

Institution produces outreach materials and/or publications that foster sustainability learning and knowledge. The publications and outreach materials may include the following:

- A central sustainability website that consolidates information about the institution's sustainability efforts
- A sustainability newsletter
- Social media platforms (e.g. Facebook, Twitter, interactive blogs) that focus specifically on campus sustainability
- A vehicle to publish and disseminate student research on sustainability
- Building signage that highlights green building features
- Food service area signage and/or brochures that include information about sustainable food systems
- Signage on the grounds about sustainable groundskeeping and/or landscaping strategies employed
- A sustainability walking map or tour
- A guide for commuters about how to use alternative methods of transportation
- Navigation and educational tools for bicyclists and pedestrians (e.g. covering routes, inter-modal connections, policies, services, and safety)
- A guide for green living and incorporating sustainability into the residential experience
- Regular coverage of sustainability in the main student newspaper, either through a regular column or a reporter assigned to the sustainability beat
- Other

A single outreach material or publication that serves multiple purposes may be counted more than once. For example, a sustainability website that includes tools for bicyclists and pedestrians may be counted in both categories.

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*"---" indicates that no data was submitted for this field*

**Does the institution produce the following outreach materials and/or publications that foster sustainability learning and knowledge? :**

	Yes or No
<b>A central sustainability website that consolidates information about the institution's sustainability efforts</b>	Yes

<b>A sustainability newsletter</b>	Yes
<b>Social media platforms that focus specifically on campus sustainability</b>	Yes
<b>A vehicle to publish and disseminate student research on sustainability</b>	Yes
<b>Building signage that highlights green building features</b>	Yes
<b>Food service area signage and/or brochures that include information about sustainable food systems</b>	Yes
<b>Signage on the grounds about sustainable groundskeeping and/or landscaping strategies employed</b>	No
<b>A sustainability walking map or tour</b>	Yes
<b>A guide for commuters about how to use alternative methods of transportation</b>	Yes
<b>Navigation and educational tools for bicyclists and pedestrians</b>	Yes
<b>A guide for green living and incorporating sustainability into the residential experience</b>	Yes
<b>Regular coverage of sustainability in the main student newspaper, either through a regular column or a reporter assigned to the sustainability beat</b>	No
<b>Other sustainability publications or outreach materials not covered above</b>	No

**A brief description of the central sustainability website:**

The MIT Office of Sustainability website serves as the central MIT website regarding all things sustainability on campus. In it, there are links to student groups and organizations, administrative departments, and related initiatives all focused on sustainability.

**The website URL for the central sustainability website:**

<http://sustainability.mit.edu/>

**A brief description of the sustainability newsletter:**

The Campus Energy Task Force publishes an annual report, and the MIT Energy Initiative publishes energy reports as well as a twice yearly Energy Futures newsletter that includes campus sustainability issues.

**The website URL for the sustainability newsletter:**

<http://mitei.mit.edu/publications/energy-futures-magazine>

**A brief description of the social media platforms that focus specifically on campus sustainability:**

MIT maintains a Facebook page for its Earth Day and Climate Conversation Committee activities.

**The website URL of the primary social media platform that focuses on sustainability:**

<https://www.facebook.com/MitEarthDay>

**A brief description of the vehicle to publish and disseminate student research on sustainability:**

Energy Futures is published twice yearly by the MIT Energy Initiative. It reports on research results and energy-related activities across the Institute.

**The website URL for the vehicle to publish and disseminate student research on sustainability:**

<https://mitei.mit.edu/publications/energy-futures-magazine/energy-futures-autumn-2013>

**A brief description of building signage that highlights green building features :**

An MIT study in 2006 found that revolving doors save a significant amount of energy compared to traditional doors. This is due to the "blast" of air that enters a building when a 'traditional' door is opened versus the smaller amount of air that enters through a revolving door. As a result, MIT has not only installed revolving doors all over campus but also put very visible signs on all the revolving doors as well as the 'traditional' doors next to them (for disabled people) instructing students to use the revolving door instead as it saves 7/8 of the energy wasted in a 'traditional' door.

**The website URL for building signage that highlights green building features :**

<http://web.mit.edu/workinggreen/conserve/saveenergy.html>

**A brief description of food service area signage and/or brochures that include information about sustainable food systems:**

In the main dining areas, the food service provider displays signage on sustainable food systems.

**The website URL for food service area signage and/or brochures that include information about sustainable food systems:**

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**A brief description of signage on the grounds about sustainable groundskeeping and/or landscaping strategies:**

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**The website URL for signage on the grounds about sustainable groundskeeping and/or landscaping strategies:**

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**A brief description of the sustainability walking map or tour:**

Published by MITEI and EHS, shows featured sustainability features around campus.

**The website URL of the sustainability walking map or tour:**

<https://sustain-dev.mit.edu/sites/default/files/documents/Campus%20Sustainability%20features%20map.pdf>

**A brief description of the guide for commuters about how to use alternative methods of transportation:**

MIT Commuter Connections provides detailed information on its website on how to use alternative modes of transportation, such as bicycling, carpooling, walking, and taking transit.

**The website URL for the guide for commuters about how to use alternative methods of transportation:**

<http://web.mit.edu/facilities/transportation/>

**A brief description of the navigation and educational tools for bicyclists and pedestrians:**

The Facilities website has a section dedicated entirely to information regarding various programs for MIT's students and staff that choose to commute through bicycling. In it, the following tools are available to students/staff:

1. Hubway Bike Share Membership Benefit (share bikes at discounted prices)
2. Get reimbursed for commuting bicycling commuter costs
3. Bicycle Registration (deter theft)
4. Bicycle Cages (get free access to a secure bike compound)
5. Bicycle Fix-it Stations (free)

**The website URL for navigation and educational tools for bicyclists and pedestrians:**

<http://web.mit.edu/facilities/transportation/bicycling.html>



**A brief description of the guide for green living and incorporating sustainability into the residential experience:**

Printable handouts with guidance on green living in dorms and around campus.

**The website URL for the guide for green living and incorporating sustainability into the residential experience:**

[http://mit.edu/%7Eslanou/www/shared\\_documents/OrientationHandout\\_student-revised\\_8%2016%2009.pdf](http://mit.edu/%7Eslanou/www/shared_documents/OrientationHandout_student-revised_8%2016%2009.pdf)

f

**A brief description of regular coverage of sustainability in the main student newspaper, either through a regular column or a reporter assigned to the sustainability beat:**

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**The website URL for regular coverage of sustainability in the main student newspaper, either through a regular column or a reporter assigned to the sustainability beat:**

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**A brief description of another sustainability publication or outreach material not covered above (1st material):**

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**The website URL for this material (1st material):**

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**Does the institution produce another sustainability publication or outreach material not covered above? (2nd material):**

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**A brief description of this material (2nd material):**

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**The website URL for this material (2nd material):**

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**Does the institution produce another sustainability publication or outreach material not covered above? (3rd material):**

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**A brief description of this material (3rd material):**

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**The website URL for this material (3rd material):**

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**Does the institution produce another sustainability publication or outreach material not covered above? (4th material):**

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**A brief description of this material (4th material):**

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**The website URL for this material (4th material):**

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**Does the institution produce another sustainability publication or outreach material not covered above? (5th material):**

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**A brief description of this material (5th material):**

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**The website URL for this material (5th material):**

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**Does the institution produce another sustainability publication or outreach material not covered above? (6th material):**

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**A brief description of this material (6th material):**

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**The website URL for this material (6th material):**

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**Does the institution produce another sustainability publication or outreach material not covered above? (7th material):**

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**A brief description of this material (7th material):**

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**The website URL for this material (7th material):**

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**Does the institution produce another sustainability publication or outreach material not covered above? (8th material):**

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**A brief description of this material (8th material):**

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**The website URL for this material (8th material):**

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# Outreach Campaign

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### *Part 1*

Institution holds at least one sustainability-related outreach campaign directed at students that yields measurable, positive results in advancing sustainability. The sustainability-related outreach campaign may be conducted by the institution, a student organization, or students in a course.

### *Part 2*

Institution holds at least one sustainability-related outreach campaign directed at employees that yields measurable, positive results in advancing sustainability. The sustainability-related outreach campaign may be conducted by the institution or an employee organization.

The campaign(s) reported for this credit could take the form of a competition (e.g. a residence hall conservation competition), a rating or certification program (e.g. a green labs or green office program), and/or a collective challenge (e.g. a campus-wide drive to achieve a specific sustainability target). A single campus-wide campaign may meet the criteria for both parts of this credit if educating students is a prime feature of the campaign and it is directed at both students and employees.

To measure if a campaign yields measurable, positive results, institutions should compare pre-campaign performance to performance during or after the campaign. The following impacts are not sufficient for this credit:

- Increased awareness
  - Additional members of a mailing list or group
- 

*"---" indicates that no data was submitted for this field*

**Has the institution held at least one sustainability-related outreach campaign directed at students within the previous three years that has yielded measurable, positive results in advancing sustainability?:**

Yes

**Has the institution held at least one sustainability-related outreach campaign directed at employees within the previous three years that has yielded measurable, positive results in advancing sustainability?:**

Yes

**The name of the campaign (1st campaign):**

greeningMIT

**A brief description of the campaign (1st campaign):**

GreeningMIT is an initiative of the MIT Energy Initiative's Campus Energy Task Force to engage the entire MIT community in taking action to make our campus more sustainable. Through awareness campaigns, information resources, planning tools, and a supportive network of Green Ambassadors, the Campus Energy Task Force is making it easy for all to make a difference in your place at MIT

**A brief description of the measured positive impact(s) of the campaign (1st campaign):**

Growth of membership the Green Ambassadors program was measured year-to-year as a measure of campus engagement.

**The website URL where information about the campaign is available (1st campaign):**

[https://ehs.mit.edu/site/sustainability?quicktabs\\_3=0#quicktabs-3](https://ehs.mit.edu/site/sustainability?quicktabs_3=0#quicktabs-3)

**The name of the campaign (2nd campaign):**

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**A brief description of the campaign (2nd campaign):**

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**A brief description of the measured positive impact(s) of the campaign (2nd campaign):**

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**The website URL where information about the campaign is available (2nd campaign):**

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**A brief description of other outreach campaigns, including measured positive impacts:**

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# Employee Educators Program

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution administers or oversees an ongoing faculty/staff peer-to-peer sustainability outreach and education program.

In the program, employee sustainability educators are formally designated and receive formal training or participate in an institution-sponsored orientation. The institution offers financial or other support to the program.

This credit recognizes ongoing programs that engage employees on a regular basis. For example, employee educators may represent or be responsible for engaging workers in certain departments or buildings. Thus, a group of employees may be served (i.e. directly targeted) by a program even if not all of these employees avail themselves of the outreach and education offerings.

Training and/or professional development opportunities in sustainability for staff are excluded from this credit. These activities are covered in *EN 8: Staff Professional Development*.

---

"---" indicates that no data was submitted for this field

## Does the institution administer or oversee an ongoing faculty/staff peer-to-peer sustainability outreach and education program that meets the criteria for this credit?:

Yes

## Total number of employees:

7,954

## Name of the employee educators program (1st program) :

Green Ambassadors Program

## Number of employees served by the program (1st program):

7,954

## A brief description of how the employee educators are selected (1st program):

The Green Ambassadors are a voluntary team, interested in taking action and getting others around them to take action to reduce their energy and environmental footprint. MIT will provide outreach and educational material, networking tools, and host periodic events for Green Ambassadors that strengthen the network and develop new approaches to be effective. The program is open to 100 percent of our [STARS Reporting Tool](#) | [AASHE](#)

faculty and staff.

**A brief description of the formal training that the employee educators receive (1st program):**

MIT provides outreach and educational material, networking tools, and hosts periodic trainings and events for Green Ambassadors that strengthen the network and develop new approaches to be effective.

**A brief description of the staff and/or other financial support the institution provides to the program (1st program):**

The institution provides funding for outreach and educational material, networking events, electronic newsletter development and distribution.

**The website URL where information about the program is available (1st program):**

<https://ehs.mit.edu/site/content/green-ambassadors-program>

**Name of the employee educators program (2nd program):**

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**Number of employees served by the program (2nd program):**

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**A brief description of how the employee educators are selected (2nd program):**

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**A brief description of the formal training that the employee educators receive (2nd program):**

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**A brief description of the financial or other support the institution provides to the program (2nd program):**

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**The website URL where information about the program is available (2nd program):**

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**Name(s) of the employee educator program(s) (all other programs):**

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**Number of employees served by all other programs:**

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**A brief description of how the employee educators are selected (all other programs):**

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**A brief description of the formal training that the employee educators receive (all other programs):**

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**A brief description of the staff and/or other financial support the institution provides to the program(s) (all other programs):**

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**The website URL where information about the program(s) is available (all other programs):**

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# Employee Orientation

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability

Office of Sustainability

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## Criteria

Institution covers sustainability topics in new employee orientation and/or in outreach and guidance materials distributed to new employees, including faculty and staff. The topics covered include multiple dimensions of sustainability (i.e. social, environmental and economic).

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*"---" indicates that no data was submitted for this field*

**The percentage of new employees that are offered orientation and/or outreach and guidance materials that cover sustainability topics:**

0

**A brief description of how sustainability is included in new employee orientation:**

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**The website URL where information about sustainability in new employee orientation is available:**

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# Staff Professional Development

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution makes available training and/or other professional development opportunities in sustainability to all staff at least once per year.

Separate training opportunities for each department would count for this credit, as long as each staff member has an opportunity to learn about sustainability at least once per year. It is not necessary that each staff member attend such trainings; the credit is based on making training available to all staff.

This credit applies to staff members only; it does not include faculty members.

The following training opportunities are not sufficient for this credit:

- Specialized training for a small group of staff
  - The opportunity to participate in an institutional sustainability committee or group
- 

*"---" indicates that no data was submitted for this field*

**Does the institution make available training and/or other professional development opportunities in sustainability to all staff at least once per year?:**

No

**A brief description of the sustainability trainings and professional development opportunities available to staff :**

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**The percentage of staff that participated in training and/or other professional development opportunities in sustainability during the previous year:**

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**The website URL where information about staff training opportunities in sustainability is available:**

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# Public Engagement

This subcategory seeks to recognize institutions that help catalyze sustainable communities through public engagement, community partnerships and service. Engagement in community problem-solving is fundamental to sustainability. By engaging with community members and organizations in the governmental, non-profit and for-profit sectors, institutions can help solve sustainability challenges. Community engagement can help students develop leadership skills while deepening their understandings of practical, real-world problems and the process of creating solutions. Institutions can contribute to their communities by harnessing their financial and academic resources to address community needs and by engaging community members in institutional decisions that affect them. In addition, institutions can contribute toward sustainability broadly through inter-campus collaboration, engagement with external networks and organizations, and public policy advocacy.

<b>Credit</b>
Community Partnerships
Inter-Campus Collaboration
Continuing Education
Community Service
Community Stakeholder Engagement
Participation in Public Policy
Trademark Licensing
Hospital Network

# Community Partnerships

**Responsible Party**

**Steven Lanou**  
 Deputy Director of Sustainability  
 Office of Sustainability

**Criteria**

Institution has one or more formal partnership(s) with the local community, including school districts, government agencies, non-profit organizations, businesses and/or other entities, to work together to advance sustainability within the community.

Each partnership conforms to one of the following types:

Type of Partnership	Indicators
<p><b>A. Supportive</b></p>	<ul style="list-style-type: none"> <li>• <i>Scope:</i> Addresses a sustainability topic or a specific aspect of sustainability (e.g. community garden, environmental remediation, community environmental health and education)</li> <li>• <i>Duration:</i> May be time-limited (short-term projects and events), multi-year, or ongoing</li> <li>• <i>Commitment:</i> Institutional involvement may include financial and/or staff support or may be limited to resource sharing and/or endorsement</li> <li>• <i>Governance:</i> Campus and community leaders or representatives are engaged in program/project development</li> </ul>
<p><b>B. Collaborative</b></p>	<ul style="list-style-type: none"> <li>• <i>Scope:</i> Addresses one or more sustainability challenge and may simultaneously support social equity and wellbeing, economic prosperity, and ecological health (e.g. a green jobs program in an economically disadvantaged neighborhood)</li> <li>• <i>Duration:</i> May be time-limited, multi-year, or ongoing</li> <li>• <i>Commitment:</i> Institution provides faculty/staff, financial, and/or material support</li> <li>• <i>Governance:</i> Campus and local community members are both engaged in program/project development, from agenda setting and planning to decision-making, implementation and review</li> </ul>

**C.Transformative**

- *Scope:* Catalyzes community resiliency and local/regional sustainability by simultaneously supporting social equity and wellbeing, economic prosperity, and ecological health on a community or regional scale (e.g. “transition” projects and partnerships focused on community adaptation to climate change)
- *Duration:* Is multi-year or ongoing and proposes or plans for institutionalized and systemic change
- *Commitment:* Institution provides faculty/staff and financial or material support
- *Governance:* Partnership has adopted a stakeholder engagement framework through which community members, vulnerable populations, faculty, staff, students and other stakeholders are engaged in program/project development, from agenda setting and planning to decision-making, implementation and review

An institution may have multiple partnerships of each type, however no single partnership may be both supportive and collaborative, collaborative and transformative, or supportive and transformative.

Recognizing the diversity of forms that community partnerships may take, it is not required that a partnership meet all of the criteria listed to be considered supportive or collaborative. A partnership must meet all of the criteria listed to be considered transformative, however. For further guidance in identifying community partnerships that meet the criteria for each type, see the Credit Example in the [STARS Technical Manual](#).

This credit recognizes campus-community partnerships that advance sustainability in an explicit and participatory way. Participatory, community-based research and engaged scholarship around issues of sustainability may be included if it involves formal partnership(s). Although community service activities (e.g. academic service learning, co-curricular service learning and volunteer activities, Work-Study community service and paid community service internships) may involve local partnerships and contribute toward sustainability, they are not included in this credit. Community service is covered by *EN 12: Community Service*.

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**Submission Note:**

See also:

<http://cambridgecompact.org>

<http://www.greenribboncommission.org>

"---" indicates that no data was submitted for this field

**Does the institution have at least one formal sustainability partnership with the local community that meets the criteria as “supportive”?:**

Yes

**A brief description of the institution’s supportive sustainability partnership(s) with the local community:**

Cambridge Climate Protection Action Committee (CPAC)

MIT is a longstanding member of the City of Cambridge's Climate Protection Action Committee (CPAC), an advisory committee appointed by the City Manager, to assist in the implementation of the City's Climate Protection Plan. The Committee also periodically develops recommendations to the City Manager.

Cambridge Net Zero Energy Task Force

In December 2013, the City of Cambridge created the Getting to Net Zero Task Force charged with advancing the goal of putting Cambridge on the trajectory towards becoming a “net zero community”, with focus on carbon emissions from building operations. This includes reducing energy use intensity of buildings and taking advantage of opportunities to harvest energy from renewable sources. MIT's Director of Sustainability, Julie Newman, sits on the Task Force as a University Representative.

**Does the institution have at least one formal sustainability partnership with the local community that meets the criteria as “collaborative”?:**

Yes

**A brief description of the institution's collaborative sustainability partnership(s):**

MIT is a leading member of the Boston Green Ribbon Commission. The Boston Green Ribbon Commission is a group of business, institutional and civic leaders in Boston working to develop shared strategies for fighting climate change in coordination with the city's Climate Action Plan. The plan includes strong recommendations on how Bostonians can:

Increase efficiencies

Reduce emissions

Prepare for extreme weather and higher sea levels

Many cities have produced similar plans. But few have also enlisted the support and leadership of the local business community as effectively as Boston.

MIT contributes staff time, meeting space resources, participation on sub-committees, coordination, and in-kind contributions.

This is an on-going partnership with a governance structure, annual goals, and public reporting.

**Does the institution have at least one formal sustainability partnership with the local community that meets the criteria as “transformative”?:**

Yes

**A brief description of the institution's transformative sustainability partnership(s) with the local community:**

Mission Statement

The Cambridge Compact for a Sustainable Future, through the collaboration of its signatories, will, through research, innovation, entrepreneurship, and social enterprise, strive to create a more healthy, livable and sustainable Cambridge community by addressing global environmental challenges including climate change.

In what is considered to be the first agreement of its kind, MIT, Harvard University and the City of Cambridge developed a compact to work collaboratively to address issues related to sustainability and climate change on a local basis. The “Cambridge Compact for a Sustainable Future” lays out a framework for signatories to work in a more coordinated and robust fashion to tackle local sustainability challenges. Open to eligible organizations and individuals, the Compact aims to leverage the different organizations' core skills and competencies in research, best practices and governance to generate new solutions in the areas of building energy efficiency, sustainable transportation, climate mitigation and adaptation, waste reduction, water management, renewable energy, urban natural resource management, and green tech incubation. On-going collaboration with annual dues to support effort.

MIT provides staff time to support the partnership in addition to a substantial founding financial contribution to stand-up the organization. MIT also contributes an annual membership fee to provide on-going support to the organization. MIT also provides meeting space and in-kind contributions as needed.

MIT's Cambridge Compact for a Sustainable Future simultaneously supports social equity and environmental health and seeks additional partnerships with community leaders in order to inspire its institutional mission and measure its success. With 20 of the leading organizations in Cambridge, the Compact provides an innovative forum for community engagement with the City of Cambridge. The Compact provides a mechanism to engage community individuals that are interested in providing subject matter expertise to the Compact.

Faculty and students have engaged through community-focused research and class projects that advance core objectives of the Compact including building energy efficiency and solar power system adoption. Periodically, City priorities are considered against Compact member core competencies and research opportunities to pair needs and expertise.

A full governance structure has been established with an elected board of directors, standing committees, and ad-hoc working committees.

This is an on-going partnership with a governance structure, annual objectives, and public reporting.

Every effort is made to institutionalize knowledge, best practices, and collaborative practices through case study development and sharing, survey analysis, policy briefings, legislative stakeholder input, etc.

#### **A brief description of the institution's sustainability partnerships with distant (i.e. non-local) communities:**

##### The International Sustainable Campus Network (ISCN)

MIT is a member of the International Sustainable Campus Network (ISCN), which brings together colleges and universities from all over the world to share best practices for achieving sustainable campus operations and integrating sustainability in research and teaching. MIT (with Harvard) hosted the 2014 international annual conference in Cambridge and serves on the advisory board.

##### Ivy Plus Sustainability Working Group

Alongside eleven of its peer institutions, MIT is a member of the Ivy Plus Sustainability Working Group, which is committed to sharing solutions that include the implementation of innovative technologies as well as research and operational methodologies that advance a commitment to greenhouse gas reduction across all of our campuses.

##### Northeast Campus Sustainability Consortium (NECSC)

The Northeast Campus Sustainability Consortium was established in October 2004 to advance education and action for sustainable development on university campuses in the northeast and maritime region. Organized around the UN Decade of Education for Sustainable Development, the NECSC members have committed to an annual meeting that advances campus sustainability by providing close networking opportunities, professional development, and access to the area's vibrant and growing college and university sustainability practitioner community.

#### **The website URL where information about sustainability partnerships is available:**

<https://sustainability.mit.edu/collaborations?qt-collaborations=1#qt-collaborations>



# Inter-Campus Collaboration

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution collaborates with other colleges and universities to support and help build the campus sustainability community.

See the Credit Example in the STARS Technical Manual for guidance on identifying appropriate collaborations.

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*"---" indicates that no data was submitted for this field*

### **Does the institution collaborate with other colleges and universities to support and help build the campus sustainability community?:**

Yes

### **A brief summary of papers, guides, presentations, and other resources the institution has developed to share their sustainability experience with other institutions:**

MIT and Harvard jointly hosted the 2014 conference of the International Sustainable Campus Network, entitled "Pushing Boundaries: Leveraging Collective Action for Global Impact." Through presentations, symposia, and collaborative workshops, this conference provided an opportunity for MIT's Office of Sustainability to share sustainability knowledge and best practices with their counterparts from institutions of higher education from around the world.

### **The names of local, state/provincial, regional, national, or international campus sustainability organizations or consortia in which the institution participates and/or is a member:**

MIT participates in the Ivy Plus Symposium, the Northeast Campus Sustainability Consortium, and the International Sustainable Campus Network.

### **A brief summary of additional ways the institution collaborates with other campuses to advance sustainability :**

Both MIT and Harvard signed the "Community Compact for a Sustainable Future" with the City of Cambridge as of May 2013. This compact provides a framework for the signatories — and other organizations that may choose to join — to coordinate as they tackle local sustainability challenges.

### **The website URL where information about cross-campus collaboration is available:**

<http://newsoffice.mit.edu/2013/mit-signs-compact-for-sustainable-future-0506>  
STARS Reporting Tool | AASHE



# Continuing Education

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### *Part 1*

Institution offers continuing education courses that address sustainability.

Courses that address sustainability include continuing education sustainability courses and continuing education courses that include sustainability. Courses that can be taken for academic credit are not included in this credit. They are covered by the Curriculum subcategory.

### *Part 2*

Institution has at least one sustainability-themed certificate program through its continuing education or extension department.

Degree-granting programs (e.g. programs that confer Baccalaureate, Masters, and Associates degrees) and certificates that are part of academic degree programs are not included in this credit. They are covered in the Curriculum subcategory.

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## Submission Note:

Also see

<http://ocw.mit.edu/courses/environment-courses/>  
and

<https://www.edx.org/course>

"---" indicates that no data was submitted for this field

## Does the institution offer continuing education courses that address sustainability?:

Yes

## Number of continuing education courses offered that address sustainability:

250

**Total number of continuing education courses offered:**

2,200

**A copy of the list and brief descriptions of the continuing education courses that address sustainability:**

[ContinuingEd\\_Classes\\_1.xlsx](#)

**A list and brief descriptions of the continuing education courses that address sustainability:**

MIT OpenCourseWare (OCW) is a free, web-based publication of virtually all MIT course content. OCW is open and available to the world and is a permanent MIT activity. Continuing education is a hallmark of the OCW and has been accessed by over 125 million learners. Over 2,200 MIT courses are available to the global community, including hundreds of courses related to sustainability. For more information on specific course, please see:

<http://ocw.mit.edu/courses/energy-courses>

<http://ocw.mit.edu/courses/environment-courses/>

<http://ocw.mit.edu/courses/transportation-courses/>

[http://search.mit.edu/search?site=ocw&client=mit&getfields=\\* &output=xml\\_no\\_dtd&proxystylesheet=](http://search.mit.edu/search?site=ocw&client=mit&getfields=* &output=xml_no_dtd&proxystylesheet=)

[http%3A%2F%2Focw.mit.edu%2Fsearch%2Fgoogle-ocw.xsl&requiredfields=WT%252Ecg\\_s%3ACourse+Home%7CW](http%3A%2F%2Focw.mit.edu%2Fsearch%2Fgoogle-ocw.xsl&requiredfields=WT%252Ecg_s%3ACourse+Home%7CW)

[T%252Ecg\\_s%3AResource+Home&sectionlimit=WT%252Ecg\\_s%3ACourse+Home%7CWT%252Ecg\\_s%3AResource+Home](T%252Ecg_s%3AResource+Home&sectionlimit=WT%252Ecg_s%3ACourse+Home%7CWT%252Ecg_s%3AResource+Home)

[&as\\_dt=i&oe=utf-8&departmentName=web&filter=0&courseName=&q=sustainability&btnG.x=0&btnG.y=0]( &as_dt=i&oe=utf-8&departmentName=web&filter=0&courseName=&q=sustainability&btnG.x=0&btnG.y=0)

Also, through MIT's global free, on-line massive open online course (MOOC) programs MITx and partner Edx, hundreds of continuing education courses are offered.

<https://www.edx.org>

and

<https://www.edx.org/school/mitx>

. Over 3 million people have taken Edx courses.

**Does the institution have at least one sustainability-themed certificate program through its continuing education or extension department?:**

Yes

**A brief description of the certificate program:**

EdX offers honor code certificates of achievement, verified certificates of achievement, and XSeries certificates of achievement. Currently, verified certificates are only available in some courses. Honor code certificates are available in others. XSeries certificates are earned by successfully completing a series of courses that make up an XSeries. Sustainability-related courses are included.

**Year the certificate program was created:**

2,013

**The website URL where information about sustainability in continuing education courses is available :**

<http://ocw.mit.edu/courses/environment-courses/>

## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### *Part 1*

Institution engages its student body in community service, as measured by the percentage of students who participate in community service.

### *Part 2*

Institution engages students in community service, as measured by the average hours contributed per full-time student per year.

Institutions may exclude non-credit, continuing education, and/or part-time students from this credit.

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### Submission Note:

Community service is for undergraduate population (2011) from Institutional Research ES Survey. 57% URL:  
[http://web.mit.edu/IR/surveys/pdf/DocExit\\_2010\\_Overall.pdf](http://web.mit.edu/IR/surveys/pdf/DocExit_2010_Overall.pdf)

Graduate community service participation in 2010: 41.2%  
[http://web.mit.edu/IR/surveys/pdf/DocExit\\_2010\\_Overall.pdf](http://web.mit.edu/IR/surveys/pdf/DocExit_2010_Overall.pdf)

"---" indicates that no data was submitted for this field

### Number of students engaged in community service:

4,972

### Total number of students :

10,451

### Does the institution wish to pursue Part 2 of this credit (community service hours)?:

No

**Total number of student community service hours contributed during a one-year period:**

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**Does the institution include community service achievements on student transcripts?:**

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**A brief description of the practice of including community service on transcripts, if applicable:**

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**Does the institution provide incentives for employees to participate in community service (on- or off-campus)?:**

Yes

**A brief description of the institution's employee community service initiatives:**

The MIT Public Services Center provides outreach, recruitment, and coordination services for a wide variety of community service opportunities for employees as well as students. MIT employees are encouraged to contribute time to community service and community giving programs.

**The website URL where information about the institution's community service initiatives is available:**

<http://web.mit.edu/mitpsc/index.html>

# Community Stakeholder Engagement

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution has adopted a framework for community stakeholder engagement in governance, strategy and operations. The framework includes:

1) Policies and procedures that ensure community stakeholder engagement is applied systematically and regularly across the institution's activities (e.g. planning and development efforts, capital investment projects, and/or other activities and decisions that affect the broader community)

And

2) Established practices to identify and engage relevant community stakeholders, including any vulnerable or underrepresented groups.

Frameworks adopted by entities of which the institution is part (e.g. government or university system) may count for this credit as long as the policies apply to and are followed by the institution.

This credit does not include the engagement of internal campus stakeholders (e.g. students, faculty and staff); internal stakeholder engagement is covered in *PA 3: Governance*.

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"---" indicates that no data was submitted for this field

## Has the institution adopted a framework for community stakeholder engagement in governance, strategy and operations?:

Yes

## A brief description of the policies and procedures that ensure community stakeholder engagement is applied systematically and regularly across the institution's activities:

Office of Government and Community Relations  
Community Relations

The Office coordinates MIT's community relations activities in Cambridge and beyond, and supports the President's Office and the MIT community-at-large in a broad range of activities. The OGCR staff are available as a resource to members of the Institute community who need information or assistance with the government, and to MIT's neighbors who need guidance in their interactions with the Institute. The Office is firmly committed to promoting town-gown collaboration and understanding. At the Institute, this Office is a communications link, a catalyst for action, and a resource for both MIT and the external community.



**A brief description of how the institution identifies and engages community stakeholders, including any vulnerable or underrepresented groups:**

MIT has a unique commitment to its host community, recognizing that the long-range welfare of the community and the Institute are often inseparable. In its role of coordinating the Institute's community relations efforts, the Office of Government and Community Relations provides information and support to community-based organizations and individuals wishing to connect with MIT.

MIT endeavors to be responsive to community needs and concerns and shares its resources in a variety of ways that include supporting nonprofits through facility use, volunteerism and financial contributions; sharing of expertise; disseminating promotional materials; and engaging in educational initiatives. Please see the links on the right side of this page for additional information on accessing MIT's resources.

The Office welcomes inquiries, as well as suggestions for ways the Institute can help promote a more vital community-at-large.

**List of identified community stakeholders:**

**Government Relations**

The Office of Government and Community Relations acts as a liaison between MIT and the local, state, and federal government, working closely with the Cambridge City Council, the General Court (legislature) of Massachusetts, and the United States Congress. The Office also maintains liaison with the executive branches of state and local government and with many of the executive agencies of the federal government, as well as with several education associations based in Washington, DC.

**Community Relations**

The Office coordinates MIT's community relations activities in Cambridge and beyond, and supports the President's Office and the MIT community-at-large in a broad range of activities. The OGCR staff are available as a resource to members of the Institute community who need information or assistance with the government, and to MIT's neighbors who need guidance in their interactions with the Institute. The Office is firmly committed to promoting town-gown collaboration and understanding. At the Institute, this Office is a communications link, a catalyst for action, and a resource for both MIT and the external community.

**A brief description of successful community stakeholder engagement outcomes from the previous three years:**

**MIT's Collaborations in Cambridge**

**Office of Government and Community Relations**

MIT has a unique commitment to its host community, recognizing that the long-range welfare of the community and the Institute are often inseparable. The Office of Government and Community Relations coordinates the Institute's community relations efforts in a variety of ways that include supporting nonprofits, engaging in neighborhood activities, and contributing to educational initiatives. Below are some examples of ways in which MIT collaborates with its host community.

The Office welcomes inquiries, as well as ideas on ways that MIT's outreach efforts can promote a more vital community-at-large.

**Supporting Nonprofits**

The Institute solidly backs nonprofit organizations that address the challenges that its host community of Cambridge faces, including providing programs for youth, meeting basic needs for underserved populations, and promoting environmental sustainability. Some of the Institute's recent ventures with area nonprofits are described below.

## Facility use

MIT often sponsors groups wishing to hold events in Institute facilities, providing a venue for celebrations, fundraisers, performances, and ceremonies.

Some of the Cambridge-based groups that have recently held events at MIT are:

- Margaret Fuller Neighborhood House; • Cambridge Community Schools;
- Food for Free;
- Breakthrough Cambridge; and
- Cambridge Community Chorus.

## Board and committee representation

Institute staff members provide expertise and access to MIT resources for a variety of nonprofits and civic entities by serving on boards and committees of these organizations. Staff also serve on City committees and task forces on topics related to public policy issues that impact our community.

Some examples of such engagements include: • CASPAR;

- Kendall Square Association;
- YMCA;
- Cambridge Rotary Club;
- Central Square Business Association; • Kendall Community Group; and
- Cambridge Office for Tourism.

## Volunteerism

Faculty, staff, and students at MIT are involved in a broad range of volunteer activities in the community, including mentoring and tutoring, providing health education, cleaning up the Charles River, and feeding the homeless and hungry. The Institute's Public Service Center (PSC) serves as a resource for programming, guidance, information, and support to those who are interested in public service.

## Charitable drives

The Institute, through its charitable giving campaign, and individual MIT departments collect items through clothing and food drives, serve and deliver food, and contribute items for agencies' wish lists.

Among the local organizations that have benefited from recent collections are:

- Cambridge Senior Center;
- Cambridge Community Center;
- Salvation Army;
- Margaret Fuller Neighborhood House; and • CASPAR.

## Financial contributions

MIT makes modest donations to selected programs, organizations, and events, to assist in the support of their mission and activities.

Some recent examples of financial assistance include: • Tutoring Plus;

- Cambridge NAACP;
- Community Art Center;
- Cambridge Family and Children's Service; • Central Square Theater
- Girls' LEAP; and
- East End House.

## MIT's Collaborations in Cambridge (Continued)

### Office of Government and Community Relations

### Supporting Nonprofits (Continued)

## Community Service Fund Support

The MIT Community Service Fund (CSF) makes financial grants to dozens of organizations and projects in Cambridge that provide crucial social services, and where MIT volunteers dedicate their talent, time and efforts.

In the past year, the CSF disbursed more than \$83,000 in grants to 20 Cambridge-based agencies and student projects, including:

- Cambridge School Volunteers;
- Just A Start;
- Science Club for Girls;

- Cambridge Community Center; • Project Manna;
- CitySprouts; and • On The Rise.

#### Neighborhood Relations

MIT is firmly committed to promoting town-gown collaboration and understanding and to acting as a resource for its neighbors. Some of the ways that the Institute has worked in partnership with its closest neighborhoods include:

- Holding neighborhood meetings to discuss and solicit input on building projects;
- Organizing an open house at the MIT Museum;
- Sharing information and promoting dialogue with neighborhoods adjacent to campus; and
- Collaborating to organize and promote Area IV

#### Pride Day.

The Institute welcomes neighbors to campus for many other events such as public discussions, lectures, and concerts. Among recent events are:

- The Cambridge Science Festival;
- Cambridge Public Library panel discussions;
- The Cambridge Public Schools' Superintendent's kicko! for teachers;
- Cambridge Police Awards; and
- The Mayor's Senior Citizens Luncheon.

#### Educational Initiatives

MIT is dedicated to sharing its academic resources, talented instructors, and excitement about learning through a variety of programs. Some recent or ongoing educational initiatives include:

- The Edgerton Center, providing hands-on science and engineering education experiences for school groups of a range of grade levels;
- The annual Massachusetts State High School Science and Engineering Fair, hosted on MIT's campus for over 60 years;
- ReachOut, a program that recruits, trains, and matches MIT tutors with children who need help with reading;
- CommuniTech, a project through which qualified families work one-on-one with MIT students, allowing them to learn basic or advanced computer skills; and
- The KeyPals mentoring program, which pairs sixth grade students with MIT staff for email exchanges and visits to campus.

#### MIT Museum

The Museum, a founding collaborator of the Cambridge Science Festival, engages the public by inviting adults and children to explore the foundations and frontiers of science and technology, offering a special focus on MIT's contributions. Family-oriented activities include demonstrations and hands-on science discovery projects.

The Museum offers free admission on Sundays from 10 to 12, and on second Fridays from 5 to 8. Cambridge Public Library cardholders receive free admission in July and August.

#### Contact Us

##### Office of the President

Government and Community Relations 77 Massachusetts Avenue, Room 11-245 Cambridge, MA 02139-4307 617.253.1988  
fax 617.258.6096

[govt-relations-www@mit.edu](mailto:govt-relations-www@mit.edu)

**The website URL where information about the institution's community stakeholder engagement framework and activities is available:**

<http://ogcr.mit.edu/about-us>



# Participation in Public Policy

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution advocates for national, state/provincial, or local public policies that support campus sustainability or that otherwise advance sustainability.

The policy advocacy must be done by the institution, not by students or a student group. This credit acknowledges institutions that advocate for policy changes and legislation to advance sustainability broadly. Advocacy efforts that are made exclusively to advance the institution's interests or projects may not be counted. For example, advocating for government funding for campus sustainability may be counted, whereas lobbying for the institution to receive funds that have already been appropriated may not.

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## Submission Note:

<http://ogcr.mit.edu>

"---" indicates that no data was submitted for this field

## Does the institution advocate for national, state/provincial, or local public policies that support campus sustainability or that otherwise advance sustainability?:

Yes

## A brief description of how the institution engages in public policy advocacy for sustainability, including the issues, legislation, and ordinances for or against which the institution has advocated:

At the federal level, MIT engages in public policy advocacy for the science, technology, research, and education that is fundamental to MIT's mission to tackle the world's greatest challenges including energy, environment, and sustainability. In addition, MIT participates in congressional hearings on issues related to energy, environment and sustainability.

At the city and state level, MIT participates in public policy development and advocates for sound sustainability measures, e.g. the Cambridge Building Energy Use Disclosure Ordinance. MIT has provided policy feedback to the City of Cambridge and Boston on matters of sustainability.

## OUR ROLE IN WASHINGTON

The mission of the MIT Washington Office is to maintain a constant flow of information between Washington, DC and the MIT campus in Cambridge, MA. Since its formation as part of the MIT President's Office in 1991, the MIT staff in Washington have followed and engaged in research and development and education efforts throughout government, managing a wide portfolio of related policy issues. In addition to communicating the latest developments in these key policy areas, MIT Washington staff facilitate interactions between [STARS Reporting Tool](#) | [AASHE](#)

campus experts and those in Congress, the Administration, associated federal agencies, and national organizations seeking that expertise. Our staff maintains a deep understanding of emerging and ongoing campus initiatives, and weaves those initiatives into their advocacy efforts in Washington. Over time, the role of the office has also evolved to include engaging and educating MIT's students in the larger science and technology policy-making process, either through classes taught on campus or via the office's internship and science policy fellows programs.

**A brief description of other political positions the institution has taken during the previous three years:**

The mission of the MIT Washington Office is to maintain a constant flow of information between Washington, DC and the MIT campus in Cambridge, MA.

Since its formation as part of the MIT President's Office in 1991, the MIT staff in Washington have followed and engaged in research and development and education efforts throughout government, managing a wide portfolio of related policy issues.

<http://dc.mit.edu>

**A brief description of political donations the institution made during the previous three years (if applicable):**

NA

**The website URL where information about the institution's advocacy efforts is available:**

<http://dc.mit.edu/>

**Responsible Party**

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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**Criteria**

Institution is a member of the Fair Labor Association (FLA) and/or the Worker Rights Consortium (WRC).

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**Submission Note:**

**Sources:**

<http://www.workersrights.org/about/as.asp>

;

<http://www.fairlabor.org/affiliate/massachusetts-institute-technology>

*"--- " indicates that no data was submitted for this field*

**Is the institution a member of the Worker Rights Consortium?:**

Yes

**Is the institution a member of the Fair Labor Association? :**

Yes

**Has the institution expressed an intention to participate in the WRC's Designated Suppliers Program? :**

No

**The website URL where information about the institution's participation in the WRC, FLA, and/or DSP is available:**

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability

Office of Sustainability

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## Criteria

Institution's affiliated hospital or health system is a member of the Global Green and Healthy Hospitals Network, the Healthier Hospitals Initiative and/or Practice Greenhealth.

This credit includes hospitals and health systems that are formally affiliated with a higher education institution (sometimes called "university hospitals"). Other types of health care providers (e.g. insurers through which an institution obtains health care for its employees) are not included.

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This credit was marked as **Not Applicable** for the following reason:

*The institution does not have an affiliated hospital or health system.*



# Operations

## Air & Climate

This subcategory seeks to recognize institutions that are measuring and reducing their greenhouse gas and air pollutant emissions. Global climate change is having myriad negative impacts throughout the world, including increased frequency and potency of extreme weather events, sea level rise, species extinction, water shortages, declining agricultural production, and spread of diseases. The impacts are particularly pronounced for low-income communities and countries. In addition, institutions that inventory and take steps to reduce their air pollutant emissions can positively impact the health of the campus community, as well as the health of their local communities and regions.

<b>Credit</b>
Greenhouse Gas Emissions
Outdoor Air Quality

# Greenhouse Gas Emissions

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### *Part 1*

Institution has conducted a publicly available greenhouse gas (GHG) emissions inventory that includes, at minimum, Scope 1 and Scope 2 GHG emissions and may also include Scope 3 GHG emissions. The inventory may be validated internally by campus personnel who are independent of the GHG accounting and reporting process and/or verified by an independent, external third party.

### *Part 2*

Institution reduced its adjusted net Scope 1 and Scope 2 GHG emissions per weighted campus user compared to a baseline.

### *Part 3*

Institution's annual adjusted net Scope 1 and Scope 2 GHG emissions are less than the minimum performance threshold of 0.02 metric tons of carbon dioxide equivalent (MtCO<sub>2</sub>e) per gross square foot (0.002 MtCO<sub>2</sub>e per gross square metre) of floor area.

Performance for Part 3 of this credit is assessed using EUJ-adjusted floor area, a figure that accounts for significant differences in energy use intensity (EUI) between types of building space.

For this credit, the following carbon offsets may be counted:

1. Institution-catalyzed carbon offsets (popularly known as "local offsets")
2. Carbon sequestration due to land that the institution manages specifically for sequestration (as documented in policies, land management plans or the equivalent)
3. Carbon storage from on-site composting
4. Third-party verified purchased carbon offsets

Purchased Renewable Energy Certificates (RECs) that are either Green-e Energy certified or meet Green-e Energy's technical requirements and are verified as such by a third party may be counted as zero emissions energy for purposes of Scope 2 GHG accounting.

Purchased carbon offsets and RECs that have not been third-party verified do not count.

Institutions that have sold or transferred emissions reductions, e.g. in the form of verified emissions reductions (VERs), may not count those reductions toward this credit.

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## **Submission Note:**

Energy intensive space is defined at the room level. Due to the way that MIT's Space Accounting Data is made available, however, these totals include both on- and off-campus buildings. Total gross floor area, however, includes only on-campus buildings. However, this

produces a conservative estimate that errors on the side of overstating the proportion of space that requires intensive energy use.

"---" indicates that no data was submitted for this field

**Does the institution's GHG emissions inventory include all Scope 1 and Scope 2 GHG emissions?:**

Yes

**Does the institution's GHG emissions inventory include all Scope 3 GHG emissions from any of the following categories?:**

	Yes or No
<b>Business travel</b>	Yes
<b>Commuting</b>	Yes
<b>Purchased goods and services</b>	No
<b>Capital goods</b>	No
<b>Fuel- and energy-related activities not included in Scope 1 or Scope 2</b>	Yes
<b>Waste generated in operations</b>	No

**Does the institution's GHG emissions inventory include Scope 3 emissions from other categories?:**

Yes

**A brief description of the methodology and/or tool used to complete the GHG emissions inventory:**

The GHG inventory was compiled by following GHG Protocol and using the Clean Air Cool Planet GHG Emissions Calculator.

**Has the GHG emissions inventory been validated internally by personnel who are independent of the GHG accounting and reporting process and/or verified by an independent, external third party?:**

Yes

**A brief description of the internal and/or external verification process:**

The inventory of scope 1 GHG emissions from stationary sources (the largest portion of MIT's GHG emissions) was prepared for MA DEP and EPA and reviewed by a state-licensed external reviewer in 2011. It was again audited in 2014 by an external consultant.

**Scope 1 and Scope 2 GHG emissions::**

	<b>Performance Year</b>	<b>Baseline Year</b>
<b>Scope 1 GHG emissions from stationary combustion</b>	149,962 <i>Metric Tons of CO2 Equivalent</i>	170,799 <i>Metric Tons of CO2 Equivalent</i>
<b>Scope 1 GHG emissions from other sources</b>	6,054 <i>Metric Tons of CO2 Equivalent</i>	7,262 <i>Metric Tons of CO2 Equivalent</i>
<b>Scope 2 GHG emissions from purchased electricity</b>	38,883 <i>Metric Tons of CO2 Equivalent</i>	31,700 <i>Metric Tons of CO2 Equivalent</i>
<b>Scope 2 GHG emissions from other sources</b>	0 <i>Metric Tons of CO2 Equivalent</i>	0 <i>Metric Tons of CO2 Equivalent</i>

**Figures needed to determine total carbon offsets::**

	<b>Performance Year</b>	<b>Baseline Year</b>
<b>Institution-catalyzed carbon offsets generated</b>	0 <i>Metric Tons of CO2 Equivalent</i>	0 <i>Metric Tons of CO2 Equivalent</i>
<b>Carbon sequestration due to land that the institution manages specifically for sequestration</b>	0 <i>Metric Tons of CO2 Equivalent</i>	0 <i>Metric Tons of CO2 Equivalent</i>
<b>Carbon storage from on-site composting</b>	0 <i>Metric Tons of CO2 Equivalent</i>	0 <i>Metric Tons of CO2 Equivalent</i>
<b>Third-party verified carbon offsets purchased</b>	0 <i>Metric Tons of CO2 Equivalent</i>	0 <i>Metric Tons of CO2 Equivalent</i>

**A brief description of the institution-catalyzed carbon offsets program:**

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**A brief description of the carbon sequestration program and reporting protocol used:**

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**A brief description of the composting and carbon storage program:**

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**A brief description of the purchased carbon offsets, including third party verifier(s) and contract timeframes:**

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**Figures needed to determine “Weighted Campus Users”::**

	<b>Performance Year</b>	<b>Baseline Year</b>
<b>Number of residential students</b>	5,981	5,546
<b>Number of residential employees</b>	25	25
<b>Number of in-patient hospital beds</b>	0	0
<b>Full-time equivalent enrollment</b>	11,074	10,293
<b>Full-time equivalent of employees</b>	8,956	8,881
<b>Full-time equivalent of distance education students</b>	0	0

**Start and end dates of the performance year and baseline year (or three-year periods):**

	<b>Start Date</b>	<b>End Date</b>
<b>Performance Year</b>	July 1, 2012	June 30, 2013
<b>Baseline Year</b>	July 1, 2007	June 30, 2010

**A brief description of when and why the GHG emissions baseline was adopted:**

The baseline is an average of the fiscal years 2008, 2009, and 2010. These years were chosen because they represent a period at least three years from the performance year, enabling assessment of change over time. In addition, taking the average of three years reduces the baseline's sensitivity to outliers and provides a more representative snapshot of past performance.

**Gross floor area of building space, performance year:**

12,159,717 *Square Feet*

**Floor area of energy intensive building space, performance year:**

STARS Reporting Tool | AASHE

	<b>Floor Area</b>
<b>Laboratory space</b>	1,916,304 <i>Square Feet</i>
<b>Healthcare space</b>	34,895 <i>Square Feet</i>
<b>Other energy intensive space</b>	86,846 <i>Square Feet</i>

**Scope 3 GHG emissions, performance year::**

	<b>Emissions</b>
<b>Business travel</b>	50,000 <i>Metric Tons of CO2 Equivalent</i>
<b>Commuting</b>	10,809 <i>Metric Tons of CO2 Equivalent</i>
<b>Purchased goods and services</b>	---
<b>Capital goods</b>	---
<b>Fuel- and energy-related activities not included in Scope 1 or Scope 2</b>	3,846 <i>Metric Tons of CO2 Equivalent</i>
<b>Waste generated in operations</b>	---
<b>Other categories (please specify below)</b>	500 <i>Metric Tons of CO2 Equivalent</i>

**A brief description of the sources included in Scope 3 GHG emissions from "other categories":**

Commuting for faculty, staff and students.

**A copy of the most recent GHG emissions inventory:**

[GHG\\_byScope\\_2008-2014\\_Jessica.xlsx](#)

**The website URL where the GHG emissions inventory is posted:**

<http://sustainability.mit.edu/sustainability-today/natural-systems>

**A brief description of the institution's GHG emissions reduction initiatives, including efforts made during the previous three years:**

Since 2006, the MIT Energy Initiative has committed the Institute's expertise and capabilities to meeting the world's energy challenges through research, education, campus energy management, and outreach. Since 2010, MIT has collaborated with its utility NSTAR to implement energy efficiency strategies such as lighting retrofits, high-performance new construction, and improved heating, ventilation and air conditioning systems through the "MIT Efficiency Forward" program. This multi-million dollar investment has touched at least 85% of campus buildings and reduced campus electricity use by 15%. MIT and NSTAR recently renewed their partnership through 2015 with the goal of saving an additional 21 million kilowatt-hours annually.

MIT was one of the first American universities to adopt comprehensive green building standards. All new construction and major renovations on campus must meet or exceed the Silver standards of the US Green Building Council's Leadership in Energy and Environmental Design program. For instance, the Sloan School of Management and the Koch Institute for Integrative Cancer Research are Gold certified and met or surpassed energy performance expectations. The newly renovated and restored Maseeh Hall and Arthur D. Little Building are Gold certified and designed to use a third less energy than comparable buildings built only to required codes. MIT also joined the US Department of Energy's new Global Superior Energy Performance Partnership to implement advanced energy efficiency strategies in the Stata Center and the W91 Data Center.

MIT's Department of Facilities actively encourages alternative transportation modes, keeping MIT's proportion of single occupant vehicle trips significantly below state and national averages. MIT's aggressive transportation demand management programs include subsidized MBTA passes, rideshare, van pool, local car sharing services, significant investments in bicycle infrastructure, and the MIT Bicycle Commuter Benefit Program (which offers a \$240/year reimbursement for full-time employees who bike to work). In addition, MIT's Department of Facilities partnered with the City of Cambridge to install publicly available electric vehicle charging stations on campus.

Sources:

MIT News Office, "MIT and NSTAR celebrate energy efficiency success, extend 'Efficiency Forward' through 2015," July 2, 2013.

MIT Sustainability Program, Sustainable Campus Charter Report, 2011.

MIT Sustainability Program, MIT Campus Energy Update, 2012.

# Outdoor Air Quality

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### *Part 1*

Institution has adopted policies or guidelines to improve outdoor air quality and minimize air pollutant emissions from mobile sources. Policies and/or guidelines may include, but are not limited to, prohibiting vehicle idling, restrictions on the use of powered lawn care equipment, and other strategies for minimizing mobile emissions.

Policies adopted by entities of which the institution is part (e.g. government or university system) may count for Part 1 of this credit as long as the policies apply to and are followed by the institution.

### *Part 2*

Institution has completed an inventory of significant air emissions from stationary sources on campus. Significant emissions include nitrogen oxides (NO<sub>x</sub>), sulfur oxides (SO<sub>x</sub>), and other standard categories of air emissions identified in environmental permits held by the institution, international conventions, and/or national laws or regulations.

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## Submission Note:

Data from FY13

"---" indicates that no data was submitted for this field

## **Does the institution have policies and/or guidelines in place to improve outdoor air quality and minimize air pollutant emissions from mobile sources?:**

Yes

## **A brief description of the policies and/or guidelines to improve outdoor air quality and minimize air pollutant emissions from mobile sources:**

MIT promotes the adoption of alternative fuel vehicles across its fleet. All shuttle buses run on commercial biodiesel blend. Shuttles were retrofitted with clean diesel pollution control devices. Transportation Demand Management programs reduce the number of vehicles on campus and encourage walking, biking, and public transportation.

## **Has the institution completed an inventory of significant air emissions from stationary sources on campus?:**

Yes



**A brief description of the methodology(ies) the institution used to complete its air emissions inventory:**

MIT is required to report annually to the MA Dept. of Environmental Protection on all major sources of priority pollutants and is governed by state and federal air emissions regulations at the central power plant and on campus. Third party consultants assemble the annual inventory.

**Weight of the following categories of air emissions from stationary sources::**

	Weight of Emissions
Nitrogen oxides (NOx)	109 Tons
Sulfur oxides (SOx)	24.70 Tons
Carbon monoxide (CO)	26 Tons
Particulate matter (PM)	34.20 Tons
Ozone (O3)	---
Lead (Pb)	---
Hazardous air pollutants (HAPs)	6.40 Tons
Ozone-depleting compounds (ODCs)	---
Other standard categories of air emissions identified in permits and/or regulations	---

**A brief description of the institution’s initiatives to minimize air pollutant emissions from stationary sources, including efforts made during the previous three years:**

Co-generation was added to the central utility plant in 1995. On going plant investments have reduced emissions and increased energy efficiency.

**The website URL where information about the institution’s outdoor air quality policies, guidelines or inventory is available:**

<http://ehs.mit.edu/site/air>

# Buildings

This subcategory seeks to recognize institutions that are taking steps to improve the sustainability performance of their buildings. Buildings are generally the largest user of energy and the largest source of greenhouse gas emissions on campuses. Buildings also use significant amounts of potable water. Institutions can design, build, and maintain buildings in ways that provide a safe and healthy indoor environment for inhabitants while simultaneously mitigating the building's impact on the outdoor environment.

<b>Credit</b>
Building Operations and Maintenance
Building Design and Construction
Indoor Air Quality

# Building Operations and Maintenance

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution owns and operates buildings that are:

1) Certified under a green building rating system for existing buildings, e.g. LEED® for Existing Buildings: Operations & Maintenance (O&M)

And/or

2) Operated and maintained in accordance with formally adopted sustainable operations and maintenance guidelines and policies that cover all of the following:

- Impacts on the surrounding site
- Energy consumption
- Building-level energy metering
- Usage of environmentally preferable materials
- Indoor environmental quality
- Water consumption
- Building-level water metering

Building space that meets multiple criteria listed above should not be double-counted.

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"---" indicates that no data was submitted for this field

**Does the institution have any building space certified under the following green building rating systems for existing buildings?:**

	Yes or No
<b>LEED for Existing Buildings or another 4-tier rating system used by an Established Green Building Council (GBC)</b>	No
<b>The DGNB system, Green Star Performance, or another 3-tier GBC rating system</b>	No

<b>BREEAM-In Use, CASBEE for Existing Building, or another 5-tier GBC rating system</b>	No
<b>Other non-GBC rating systems (e.g. BOMA BEST, Green Globes)</b>	No

**A brief description of the green building rating system(s) used and/or a list or sample of certified buildings and ratings:**

LEED for NC for new construction and major renovations.

**Total floor area of eligible building space (operations and maintenance):**

12,159,717 *Square Feet*

**Floor area of building space that is certified at each level under a 4-tier rating system for existing buildings used by an Established Green Building Council::**

	<b>Certified Floor Area</b>
<b>Minimum Level (e.g. LEED Certified)</b>	---
<b>3rd Highest Level (e.g. LEED Silver)</b>	---
<b>2nd Highest Level (e.g. LEED Gold)</b>	---
<b>Highest Achievable Level (e.g. LEED Platinum)</b>	---

**Floor area of building space that is certified at each level under a 3-tier rating system for existing buildings used by an Established Green Building Council::**

	<b>Certified Floor Area</b>
<b>Minimum Level</b>	---
<b>Mid-Level</b>	---
<b>Highest Achievable Level</b>	---

**Floor area of building space that is certified at each level under a 5-tier rating system for existing buildings used by an Established Green Building Council::**

	Certified Floor Area
Minimum Level	---
4th Highest Level	---
Mid-Level	---
2nd Highest Level	---
Highest Achievable Level	---

**Floor area of building space that is certified at any level under other green building rating systems for existing buildings:**

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**Floor area of building space that is maintained in accordance with formally adopted sustainable building operations and maintenance guidelines or policies, but NOT certified:**

12,159,717 *Square Feet*

**A copy of the sustainable building operations and maintenance guidelines or policies:**

[Sustainability Goals Oct 01\(1\).pdf](#)

**The date the guidelines or policies were formally adopted:**

Oct. 1, 2001

**A brief description of the sustainable building operations and maintenance program and/or a list or sample of buildings covered:**

MIT's Environmental Goals (see attached document) cover the entire MIT campus, including all of its buildings. The majority of these goals are connected with sustainable building operations and maintenance. They include conserving energy, reducing pollution emissions and hazardous waste streams, reducing resource consumption (including water), increasing use of recycled materials, improving indoor air quality, and improving the local urban environment.

**A brief description of how the institution ensures compliance with sustainable building operation and maintenance guidelines and policies:**

By adopting "Environmental Goals for MIT," the Institute formally and publicly committed to becoming a leader in environmentally responsible operations, facilities, and education. The Institute will consider lifecycle and environmental costs and benefits when designing all campus projects and programs, with particular emphasis on capital investments in new and renewed buildings. For instance, all new projects (including new construction and renovations) must be designed to meet or exceed the "LEED Silver Plus" standard. In addition, the Institute has committed to developing performance-based standards tailored to individual projects, to be applied at all stages

of their use.

**The website URL where information about the institution's certified buildings and/or sustainable operations and maintenance guidelines or policies is available:**

[http://ehs.mit.edu/site/sites/default/files/files/Sustainability%20Goals%20Oct%2001\(1\).pdf](http://ehs.mit.edu/site/sites/default/files/files/Sustainability%20Goals%20Oct%2001(1).pdf)

# Building Design and Construction

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution-owned buildings that were constructed or underwent major renovations in the previous five years are:

1) Certified under a green building rating system for new construction and major renovations (e.g. the LEED® for New Construction and Major Renovations, LEED for Commercial Interiors, LEED for Healthcare, and/or LEED for Core and Shell Green Building Rating Systems)

2) Certified Living under the Living Building Challenge (LBC)

And/or

3) Designed and built in accordance with formally adopted green building guidelines and policies that cover all of the following topics:

- Impacts on the surrounding site
- Energy consumption
- Building-level energy metering
- Usage of environmentally preferable materials
- Indoor environmental quality
- Water consumption
- Building-level water metering

Building space that meets multiple criteria listed above should not be double-counted.

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### Submission Note:

The list of LEED (planned and existing) buildings is drawn from page 29 of MIT's 2014 Town Gown Report ([http://www.cambridgema.gov/~media/Files/CDD/Planning/TownGown/tg2013/town\\_gown\\_2013\\_mit.ashx](http://www.cambridgema.gov/~media/Files/CDD/Planning/TownGown/tg2013/town_gown_2013_mit.ashx)).

Detailed information on each building is drawn from MIT's Capital Projects website (<http://capitalprojects.mit.edu>) and the LEED Project Directory (<http://www.usgbc.org/projects>).

Eligible space is equal to the sum of all space certified under LEED because the City of Cambridge and MIT require all new construction to meet LEED criteria.

**Does the institution have any building space certified under the following green building rating systems for new construction and major renovations?:**

	Yes or No
<b>LEED or another 4-tier rating system used by an Established Green Building Council (GBC)</b>	Yes
<b>The DGNB system, Green Star, or another 3-tier GBC rating system</b>	No
<b>BREEAM, CASBEE, or another 5-tier GBC rating system</b>	No
<b>The Living Building Challenge</b>	No
<b>Other non-GBC rating systems (e.g. BOMA BEST, Green Globes)</b>	No

**A brief description of the green building rating system(s) used and/or a list of certified buildings and ratings:**

The following MIT buildings are certified under the U.S. Green Building Council's Leadership in Energy & Environmental Design (LEED) rating system for Building Design and Construction and Commercial Interiors. The system applies to buildings that are being newly constructed or going through major renovation. These building projects satisfied a range of green building prerequisites to earn points towards LEED Gold and LEED Silver, the 2nd and 3rd highest levels of certification.

- 640 Memorial Drive - LEED Gold
- Arthur D. Little Building (E60) - LEED Gold
- Ashdown House (NW35) - LEED Gold
- Brain & Cognitive Sciences Complex (Building 46) - LEED Silver
- Fariborz Maseeh Hall (W1) - LEED Gold
- Koch Institute for Integrative Cancer Research (Building 76) - LEED Gold
- Sloan School (E62) - LEED Gold

**Total floor area of eligible building space (design and construction):**

12,159,717 *Square Feet*

**Floor area of building space that is certified at each level under a 4-tier rating system for new construction and major renovations used by an Established Green Building Council::**

	Certified Floor Area



<b>Minimum Level (e.g. LEED Certified)</b>	<i>0 Square Feet</i>
<b>3rd Highest Level (e.g. LEED Silver)</b>	<i>411,000 Square Feet</i>
<b>2nd Highest Level (e.g. LEED Gold)</b>	<i>1,265,130 Square Feet</i>
<b>Highest Achievable Level (e.g. LEED Platinum)</b>	<i>0 Square Feet</i>

**Floor area of building space that is certified at each level under a 3-tier rating system for new construction and major renovations used by an Established Green Building Council::**

	<b>Certified Floor Area</b>
<b>Minimum Level</b>	---
<b>Mid-Level</b>	---
<b>Highest Achievable Level</b>	---

**Floor area of building space that is certified at each level under a 5-tier rating system for new construction and major renovations used by an Established Green Building Council::**

	<b>Certified Floor Area</b>
<b>Minimum Level</b>	---
<b>4th Highest Level</b>	---
<b>Mid-Level</b>	---
<b>2nd Highest Level</b>	---
<b>Highest Achievable Level</b>	---

**Floor area of building space certified Living under the Living Building Challenge:**

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**Floor area of building space that is certified at any level under other green building rating systems for new construction and major renovations:**

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**Floor area of building space that was designed and constructed in accordance with green building policies or guidelines but NOT certified:**

430,000 *Square Feet*

**A copy of the guidelines or policies :**

[Sustainability Goals Oct 01\(1\).pdf](#)

**The date the guidelines or policies were adopted:**

Oct. 15, 2001

**A brief description of the green building guidelines or policies and/or a list or sample of buildings covered:**

At MIT, all new capital projects and major renovations must meet Silver or better standards of the US Green Building Council's (USBGC) Leadership in Energy and Environmental Design (LEED) certification program, in addition to meeting the energy efficiency goals of the City of Cambridge's Stretch Energy Code.

In the past decade, MIT has made considerable progress in constructing its new buildings with many sustainable features. The Department of Facilities maintains a comprehensive list of additional information on current and planned construction projects. Examples of recent building projects include:

The Sloan School of Management building (E62), was completed in 2010 and is LEED Gold certified. Post occupancy studies show that the building is meeting aggressive energy efficiency targets, using about 45% less energy than a typical building of a similar size that simply meets code requirements. The building incorporates a high-performance envelope with operable windows in office areas, (partial) green roof, low-wattage lighting, demand ventilation, occupancy sensor controls, water-based terminal heating and cooling units, and easy access to usable outdoor spaces. Read more about the design and operation of the building [here](#).

The Koch Institute for Integrative Cancer Institute, completed in Fall 2010, is MIT's first LEED Gold certified research lab. The project demonstrates the viability of combining sustainability and scientific function in building design and operation. Reports confirm that the building is using 35 percent less energy than a standard laboratory research building. Designing an energy efficient ventilation system was a priority; Koch has over a hundred fume hoods that flush contaminated air away from researchers, which are a major source for energy consumption. To learn about more about Koch's sustainable features, read [here](#). Other sustainable design features include: redevelopment of a brownfield site, a reflective roof, and a storm water filtration system.

Ashdown House (NW35) is a LEED Gold certified graduate residence hall completed in 2008 that houses more than 400 students. The building received LEED Gold certification in 2009 and includes many sustainable design features including light pollution reduction, Energy Star appliances, nontoxic materials.: landscaping and irrigation systems that use water from a non-potable source; a storm-water management system that reduces storm-water runoff; maximized daylight available in 95 percent of regularly occupied spaces; and low-flow fixtures that reduce water use by more than 20 percent. Read more [here](#).

MIT's Brain and Cognitive Science Complex is the world's largest center for neuroscience research, opened in 2005 and received LEED Silver certification in 2008. Sustainable features include: a high-performance building envelope, gray water reuse, exhaust-fan heat recovery, and daylight-balanced lighting. Read more [here](#).

The iconic Stata Center, completed in 2004, has an innovative storm water management system, displaced ventilation systems, and a roof design that uses native vegetation and a white reflective surface to reduce the heat island effect.

**A brief description of how the institution ensures compliance with green building design and construction guidelines and policies:**

Office of Sustainability has oversight for monitoring and measuring LEED building implementation in partnership with the Department of Facilities. Annual reporting on LEED certification is done.

**The website URL where information about the institution's certified buildings and/or green building design and construction guidelines or policies is available:**

<http://web.mit.edu/Facilities/environmental/buildings.html>

# Indoor Air Quality

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution has an indoor air quality (IAQ) management program that includes regular auditing or monitoring, a mechanism for occupants to register complaints, and action plans to implement any corrective measures required in response to audits, monitoring or complaints.

Policies and plans adopted by entities of which the institution is part (e.g. government or university system) may count for this credit as long as the policies apply to and are followed by the institution.

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*"---" indicates that no data was submitted for this field*

## **Floor area of building space covered by an indoor air quality (IAQ) management program that meets the criteria for this credit:**

12,159,717 *Square Feet*

## **Gross floor area of building space:**

12,159,717 *Square Feet*

## **A brief description of the institution's indoor air quality program(s):**

MIT Environment, Health & Safety is responsible for the campus' indoor air quality. This work includes comprehensive training, monitoring spaces, responding to occupant concerns, and implementing corrective measures using a risk-based approach. EHS indoor air quality programs are available to all MIT academic spaces. While EHS does not continually do instrumented monitoring for all indoor air quality in all spaces across campus, it does constantly instrument-monitor key lab areas for certain gases and vapors, and respond and monitor concerns in all spaces. Labs are monitored for specific gases that could endanger human health, garages are monitored for carbon monoxide, and kitchens are monitored for carbon monoxide and vapor levels at or near the lower explosive limit.

## **The website URL where information about the institution's indoor air quality program(s) is available:**

<https://ehs.mit.edu/site/content/indoor-air-quality>

## Dining Services

This subcategory seeks to recognize institutions that are supporting a sustainable food system. Modern industrial food production often has deleterious environmental and social impacts. Pesticides and fertilizers used in agriculture can contaminate ground and surface water and soil, which can in turn have potentially dangerous impacts on wildlife and human health. The production of animal-derived foods often subjects animals to inhumane treatment and animal products have a higher per-calorie environmental intensity than plant-based foods. Additionally, farm workers are often directly exposed to dangerous pesticides, subjected to harsh working conditions, and paid substandard wages. Furthermore, food is often transported long distance to institutions, producing greenhouse gas emissions and other pollution, as well as undermining the resiliency of local communities.

Institutions can use their purchasing power to require transparency from their distributors and find out where the food comes from, how it was produced, and how far it traveled. Institutions can use their food purchases to support their local economies; encourage safe, environmentally-friendly and humane farming methods; and help eliminate unsafe working conditions and alleviate poverty for farmers. These actions help reduce environmental impacts, preserve regional farmland, improve local food security, and support fair and resilient food systems.

Please note that while dining services can also play an important role in conserving energy and water, reducing waste, and purchasing environmentally preferable materials other than food, STARS measures these impacts across the institution instead of by department; therefore, the benefits of these actions are captured in the Energy, Water, Waste, and Purchasing subcategories, respectively.

<b>Credit</b>
Food and Beverage Purchasing
Low Impact Dining

# Food and Beverage Purchasing

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### **Part 1**

Institution's dining services purchase food and beverages that meet at least one of the following criteria:

- Local and community-based

And/or

- Third party verified to be ecologically sound, fair and/or humane

Food and beverage purchases that meet both criteria listed above (e.g. local community-based products that are Certified Organic) should not be double-counted.

Local community- based products:

- Are sourced from local community-based producers (directly or through distributors)
- Contain raw ingredients (excluding water) that are third party verified and/or locally harvested and produced (e.g. bread made with Organic flour or local honey) and
- Exclude products from Concentrated Animal Feeding Operations (CAFOs), products that have minimal nutritional value (e.g. soda, chewing gum, candies made predominantly from sweeteners), and products from producers that have been convicted of one or more labor law violations within the previous three years

Products that are not local and community-based must be third party verified to count. Recognized third party standards and certifications for food and beverages are outlined in the [STARS Technical Manual](#). Institutions located outside the U.S. and Canada may use additional third party certifications to identify ecologically sound, fair and humane products, provided the certifications are reported in "Notes about this submission".

Part 1 of this credit includes food and beverage purchases for on-campus dining operations and catering services operated by the institution or the institution's primary dining services contractor (e.g. Aramark, Bon Appétit Management Company, Chartwells, Sodexo). On-site franchises, convenience stores, vending services, and concessions are excluded from Part 1.

### **Part 2**

Institution's on-site franchises, convenience stores, vending services, and/or concessions purchase food and beverages that are third party verified and/or locally sourced (i.e. meet the criteria outlined in Part 1).

---

"---" indicates that no data was submitted for this field

**Percentage of dining services food and beverage expenditures that are local and community-based and/or third party verified:**

20

**A copy of an inventory, list or sample of sustainable food and beverage purchases:**

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**An inventory, list or sample of sustainable food and beverage purchases:**

<http://mit.cafebonappetit.com/wellness/sustainability/local-food>

**Does the institution wish to pursue Part 2 of this credit (food and beverage expenditures for on-site franchises, convenience stores, vending services, or concessions)?:**

No

**Percentage of on-site franchise, convenience store, vending services, and concessions food and beverage purchases that are local and community-based and/or third party verified:**

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**A copy of an inventory, list or sample of on-site franchise, convenience store, vending machine, and/or concessions food and beverage purchases that are sustainably produced:**

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**An inventory, list or sample of on-site franchise, convenience store, vending machine, and/or concessions food and beverage purchases that are sustainably produced:**

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**A brief description of the sustainable food and beverage purchasing program:**

MIT's food service provider, Bon Appétit, has a companywide initiative to buy locally. Whenever possible, Bon Appétit purchases seasonal ingredients from small, owner-operated farms within a 150-mile radius of MIT. Their goal is to spend at least 20 cents of every dollar with their network of over a thousand local farms.

We are proud to be the first food service company to commit to:

Supporting local agriculture (with a defined purchasing target), since 1999

Striving to serve only seafood that meets Seafood Watch® sustainability guidelines for commercial buyers, since 2002

Reducing antibiotic use in farm animals (2003)

Serving rBGH-free milk (2003)

[STARS Reporting Tool](#) | [AASHE](#)

Switching to cage-free eggs (2005)  
 Tackling food's role in climate change (2007)  
 Addressing farmworkers' rights (2009)  
 Switching to humanely raised ground beef (2012)  
 Phasing out pork raised with gestation crates (by 2015)

Source:

<http://mit.cafebonappetit.com>

<http://mit.cafebonappetit.com/wellness/>

**A brief description of the methodology used to track/inventory sustainable food and beverage purchases:**

Dining service contractor tracks sustainable food purchases. Available upon request.

**Total annual food and beverage expenditures:**

---

**Which of the following food service providers are present on campus and included in the total food and beverage expenditure figures?:**

	Present?	Included?
Dining operations and catering services operated by the institution	No	No
Dining operations and catering services operated by a contractor	Yes	Yes
Franchises	Yes	No
Convenience stores	Yes	No
Vending services	Yes	No
Concessions	Yes	No



**Has the institution achieved the following?:**

	Yes or No
<b>Fair Trade Campus, College or University status</b>	No
<b>Certification under the Green Seal Standard for Restaurants and Food Services (GS-46)</b>	No
<b>Marine Stewardship Council (MSC) certification</b>	---
<b>Signatory of the Real Food Campus Commitment (U.S.)</b>	---

**A brief description of other sustainable restaurant and food service standards that the institution's dining services operations are certified under:**

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**The website URL where information about the institution's sustainable food and beverage purchasing efforts is available:**

<http://mit.cafebonappetit.com/wellness/>

# Low Impact Dining

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### Part 1

Conventionally produced animal products comprise less than 30 percent of the institution's total dining services food purchases.

Conventionally produced animal products include all food products that contain animal derived (i.e. meat, fish, egg, dairy) ingredients that have not been verified to be sustainably produced. Sustainably produced animal products have been either:

- Third party verified to be ecologically sound and/or humane (see *OP 6: Food and Beverage Purchasing*)

Or

- Verified by the institution to be both ecologically sound and humane (e.g. "Pasture Raised", "Grass Fed" or "Humanely Raised") through a relationship with a local producer

### Part 2

Institution:

- Offers diverse, complete-protein vegan options at all meals in at least one dining facility on campus

And

- Provides labels and/or signage that distinguishes between vegan, vegetarian (not vegan), and other items

This credit includes on-campus dining operations and catering services operated by the institution or the institution's primary dining services contractor. On-site franchises, convenience stores, vending machines, and concessions should be excluded to the extent feasible.

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## Submission Note:

<http://mit.cafefonappetit.com/wellness/>

<https://sustainability.mit.edu/sustainability-today/campus-systems>

<http://mit.cafefonappetit.com/wellness/sustainability/beef>

**Percentage of total dining services food purchases comprised of conventionally produced animal products:**

75

**A brief description of the methodology used to track/inventory expenditures on animal products:**

Major food service contractors track types of expenditures. Estimates of sustainably produced products are provided by the contractors.

<http://mit.cafebonappetit.com/wellness/sustainability/beef>

**Does the institution offer diverse, complete-protein vegan dining options at all meals in at least one dining facility on campus?:**

Yes

**Does the institution provide labels and/or signage that distinguishes between vegan, vegetarian (not vegan), and other items?:**

Yes

**Are the vegan options accessible to all members of the campus community?:**

Yes

**A brief description of the vegan dining program, including availability, sample menus, signage and any promotional activities (e.g. "Meatless Mondays"):**

All House Dining locations offer extensive vegetarian and vegan menus. There are specific options at every meal for vegans and vegetarians. Moreover, students are not limited to one station, and may choose their food items from anywhere in the dining hall. For example, even if a station is not expressly "vegetarian," a student may prefer a vegetable side dish from that station and has the option to enjoy it at no extra cost.

In addition, vegetarian options are available at every restaurant on campus, and the Clover Food Truck (semi-permanently located on MIT's East Campus) provides an entirely vegetarian/vegan menu.

Sources:

<http://dining.mit.edu/meal-plans/faq#diet>

;

<http://dining.mit.edu/nutrition-wellness/allergies-diets>

**A brief description of other efforts the institution has made to reduce the impact of its animal-derived food purchases:**

MIT endeavors to provide its community with healthy, nutritious dining opportunities that embrace sustainable food practices including local, fresh, organic and other sustainable approaches. MIT Campus Dining has implemented a number of measures to become more sustainable through energy efficiency efforts and waste reduction. Waste reduction efforts include: introducing reusable takeout containers in student dining halls, reducing paper cup usage by offering discounts on using renewable mugs, cooking in small batches to reduce waste, and composting pre- and post-consumer waste. For information on MIT Facilities composting efforts, visit here. Food service providers also now include more local, organic food options in meals served at House Dining Rooms.

In 2008, MIT’s staff sustainability committee, Working Green, coordinated with Red Fire Farm in Granby, MA to organize a CSA drop-off point at MIT. For more information, visit the Working Green site or Red Fire Farm.

Our dining services contractor has the following programs:

We are proud to be the first food service company to commit to:

- Supporting local agriculture (with a defined purchasing target), since 1999
- Striving to serve only seafood that meets Seafood Watch® sustainability guidelines for commercial buyers, since 2002
- Reducing antibiotic use in farm animals (2003)
- Serving rBGH-free milk (2003)
- Switching to cage-free eggs (2005)
- Tackling food’s role in climate change (2007)
- Addressing farmworkers’ rights (2009)
- Switching to humanely raised ground beef (2012)
- Phasing out pork raised with gestation crates (by 2015)

**The website URL where information about where information about the vegan dining program is available:**

<http://mit.cafebonappetit.com/wellness/>

**Annual dining services expenditures on food:**

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**Annual dining services expenditures on conventionally produced animal products:**

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**Annual dining services expenditures on sustainably produced animal products:**

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# Energy

This subcategory seeks to recognize institutions that are reducing their energy consumption through conservation and efficiency, and switching to cleaner and renewable sources of energy such as solar, wind, geothermal, and low-impact hydropower. For most institutions, energy consumption is the largest source of greenhouse gas emissions, which cause global climate change. Global climate change is having myriad negative impacts throughout the world, including increased frequency and potency of extreme weather events, sea level rise, species extinction, water shortages, declining agricultural production, ocean acidification, and spread of diseases. The impacts are particularly pronounced for vulnerable and poor communities and countries. In addition to causing global climate change, energy generation from fossil fuels, especially coal, produces air pollutants such as sulfur dioxide, nitrogen oxides, mercury, dioxins, arsenic, cadmium and lead. These pollutants contribute to acid rain as well as health problems such as heart and respiratory diseases and cancer. Coal mining and oil and gas drilling can also damage environmentally and/or culturally significant ecosystems. Nuclear power creates highly toxic and long-lasting radioactive waste. Large-scale hydropower projects flood habitats and disrupt fish migration and can involve the relocation of entire communities.

Implementing conservation measures and switching to renewable sources of energy can help institutions save money and protect them from utility rate volatility. Renewable energy may be generated locally and allow campuses to support local economic development. Furthermore, institutions can help shape markets by creating demand for cleaner, renewable sources of energy.

<b>Credit</b>
Building Energy Consumption
Clean and Renewable Energy

# Building Energy Consumption

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### Part 1

Institution has reduced its total building energy consumption per gross square foot/metre of floor area compared to a baseline.

### Part 2

Institution's annual building energy consumption is less than the minimum performance threshold of 28 Btu per gross square foot (2.6 Btu per gross square metre) of floor area per degree day.

Performance for Part 2 of this credit is assessed using EUI-adjusted floor area, a figure that accounts for significant differences in energy use intensity (EUI) between types of building space.

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### Submission Note:

Energy intensive space is defined at the room level. Due to the way that MIT's Space Accounting Data is made available, however, these totals include both on- and off-campus buildings. Total gross floor area, however, includes only on-campus buildings. However, this produces a conservative estimate that errors on the side of overstating the proportion of space that requires intensive energy use.

The baseline total gross floor area represents the average for the years 2008, 2009, and 2010, consistent with the other sections of this report.

<http://sustainability.mit.edu/sustainability-today/campus-systems>

<http://web.mit.edu/facilities/environmental/beep.html>

"---" indicates that no data was submitted for this field

### Total building energy consumption, all sources (transportation fuels excluded):

	Performance Year	Baseline Year
<b>Total building energy consumption</b>	3,182,000 <i>MMBtu</i>	3,429,000 <i>MMBtu</i>

**Purchased electricity and steam:**

	Performance Year	Baseline Year
Grid-purchased electricity	395,000 <i>MMBtu</i>	300,600 <i>MMBtu</i>
District steam/hot water	0 <i>MMBtu</i>	0 <i>MMBtu</i>

**Gross floor area of building space::**

	Performance Year	Baseline Year
Gross floor area	12,159,717 <i>Gross Square Feet</i>	11,135,598 <i>Gross Square Feet</i>

**Floor area of energy intensive space, performance year::**

	Floor Area
Laboratory space	1,916,304 <i>Square Feet</i>
Healthcare space	34,895 <i>Square Feet</i>
Other energy intensive space	

**Degree days, performance year (base 65 °F / 18 °C)::**

	Degree Days
Heating degree days	5,362
Cooling degree days	889

**Source-site ratios::**

	Source-Site Ratio (1.0 - 5.0; see help icon above)
Grid-purchased electricity	3.14
District steam/hot water	1.20

**Start and end dates of the performance year and baseline year (or 3-year periods)::**

	Start Date	End Date
Performance Year	July 1, 2012	June 30, 2013
Baseline Year	July 1, 2007	June 30, 2010

**A brief description of when and why the building energy consumption baseline was adopted:**

The baseline is an average of the fiscal years 2008, 2009, and 2010. These years were chosen because they represent a period at least three years from the performance year, enabling assessment of change over time. In addition, taking the average of three years reduces the baseline's sensitivity to outliers and provides a more representative snapshot of past performance.

**A brief description of any building temperature standards employed by the institution:**

<http://web.mit.edu/facilities/environmental/beep.html>

**A brief description of any light emitting diode (LED) lighting employed by the institution:**

<http://web.mit.edu/facilities/environmental/beep.html>

**A brief description of any occupancy and/or vacancy sensors employed by the institution:**

<http://web.mit.edu/facilities/environmental/beep.html>

**A brief description of any passive solar heating employed by the institution:**

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**A brief description of any ground-source heat pumps employed by the institution:**

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**A brief description of any cogeneration technologies employed by the institution:**

"The MIT Cogeneration Project represents a ten year, forty million dollar initiative by the Massachusetts Institute of Technology to generate its own electrical and thermal power. The new plant is projected to save the Institute millions of dollars over the life of the plant through the technology of cogeneration. Through cogeneration, we generate our electrical and thermal power simultaneously by utilizing the waste heat from a gas turbine to generate steam. This technology is approximately 18% more efficient than the technology that it replaces. MIT also feels strongly that environmental preservation is more important than ever. We have utilized that latest technology available for reducing our emissions into the air of Cambridge. The new technology used in our plant will reduce emissions by 45% compared to our old technology. This reduction is the equivalent of eliminating 13,000 automobile round trips into Cambridge per day. MIT is also committed to making this new facility a resource for the entire MIT community. We are currently working on integrating our plant with academic departments in order that both the cogeneration facility and the academic community can benefit."

Source:

<https://cogen.mit.edu>

**A brief description of any building recommissioning or retrofit program employed by the institution:**

<http://web.mit.edu/facilities/environmental/beep.html>

**A brief description of any energy metering and management systems employed by the institution:**

<http://web.mit.edu/facilities/environmental/beep.html>

**A brief description of the institution's program to replace energy-consuming appliances, equipment and systems with high efficiency alternatives:**

<http://web.mit.edu/facilities/environmental/beep.html>

**A brief description of any energy-efficient landscape design initiatives employed by the institution:**

<http://web.mit.edu/facilities/environmental/beep.html>

**A brief description of any vending machine sensors, lightless machines, or LED-lit machines employed by the institution:**

<http://web.mit.edu/facilities/environmental/beep.html>

**A brief description of other energy conservation and efficiency initiatives employed by the institution:**

<http://web.mit.edu/facilities/environmental/beep.html>

**The website URL where information about the institution's energy conservation and efficiency initiatives is available:**

<http://web.mit.edu/facilities/environmental/beep.html>

## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability

Office of Sustainability

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## Criteria

Institution supports the development and use of clean and renewable energy sources, using any one or combination of the following options.

Option 1:

Generating electricity from clean and renewable energy sources on campus and retaining or retiring the rights to the environmental attributes of such electricity. (In other words, if the institution has sold Renewable Energy Credits for the clean and renewable energy it generated, it may not claim such energy here.) The on-site renewable energy generating devices may be owned and/or maintained by another party as long as the institution has contractual rights to the associated environmental attributes.

Option 2:

Using renewable sources for non-electric, on-site energy generation, such as biomass for heating.

Option 3:

Catalyzing the development of off-site clean and renewable energy sources (e.g. an off-campus wind farm that was designed and built to supply electricity to the institution) and retaining the environmental attributes of that energy.

Option 4:

Purchasing the environmental attributes of electricity in the form of Renewable Energy Certificates (RECs) or other similar renewable energy products that are either Green-e Energy certified or meet Green-e Energy's technical requirements and are verified as such by a third party, or purchasing renewable electricity through the institution's electric utility through a certified green power purchasing option.

Since this credit is intended to recognize institutions that are actively supporting the development and use of clean and renewable energy, neither the electric grid mix for the region in which the institution is located nor the grid mix reported by the electric utility that serves the institution count for this credit.

The following renewable systems are eligible for this credit:

- Concentrated solar thermal
- Geothermal systems that generate electricity
- Low-impact hydroelectric power
- Solar photovoltaic
- Wave and tidal power

- Wind

Biofuels from the following sources are eligible:

- Agricultural crops
- Agricultural waste
- Animal waste
- Landfill gas
- Untreated wood waste
- Other organic waste

Technologies that reduce the amount of energy used but do not generate renewable energy do not count for this credit. For example, daylighting, passive solar design, and ground-source heat pumps are not counted in this credit. The benefits of such strategies, as well as improved efficiencies achieved through using cogeneration technologies, are captured by *OP 1: Greenhouse Gas Emissions* and *OP 8: Building Energy Consumption*.

Transportation fuels, which are covered by *OP 1: Greenhouse Gas Emissions* and *OP 18: Campus Fleet*, are not included in this credit.

**Submission Note:**

Performance year = FY2013 (July 1, 2012-June 30, 2013)

"---" indicates that no data was submitted for this field

**Clean and renewable energy from the following sources::**

	Performance Year
<b>Option 1: Clean and renewable electricity generated on-site during the performance year and for which the institution retains or has retired the associated environmental attributes</b>	82 <i>MMBtu</i>
<b>Option 2: Non-electric renewable energy generated on-site</b>	0 <i>MMBtu</i>
<b>Option 3: Clean and renewable electricity generated by off-site projects that the institution catalyzed and for which the institution retains or has retired the associated environmental attributes</b>	0 <i>MMBtu</i>
<b>Option 4: Purchased third-party certified RECs and similar renewable energy products (including renewable electricity purchased through a certified green power purchasing option)</b>	0 <i>MMBtu</i>

**Total energy consumption, performance year:**

3,083,377 *MMBtu*

**A brief description of on-site renewable electricity generating devices :**

The Massachusetts Technology Collaborative supports the installation of solar photovoltaic systems throughout the metro Boston Area. To date, MIT has purchased four solar photovoltaic systems through the MTC grant program and installed them on its main campus. A 13 kW array was installed at the Hayden Library (Building 14), but is currently inactive. However, the Wang Fitness Center (Building 57) has a 39 kW system on the roof of the Alumni Pool, a small 2.5 kW system is installed above the MIT Museum (Building N52), and the Stratton Student Center (Building W20) has a 7.2 kW system on its roof.

**A brief description of on-site renewable non-electric energy devices:**

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**A brief description of off-site, institution-catalyzed, renewable electricity generating devices:**

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**A brief description of the RECs and/or similar renewable energy products:**

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**The website URL where information about the institution's renewable energy sources is available:**

<https://sustain-dev.mit.edu/what-were-doing/our-dash-board/solar-pv-systems>

# Grounds

This subcategory seeks to recognize institutions that plan and maintain their grounds with sustainability in mind. Beautiful and welcoming campus grounds can be planned, planted, and maintained in any region while minimizing the use of toxic chemicals, protecting wildlife habitat, and conserving water and resources.

<b>Credit</b>
Landscape Management
Biodiversity

# Landscape Management

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability

Office of Sustainability

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## Criteria

Institution's grounds include areas that are managed at one or more of the following levels:

- 1) Managed in accordance with an Integrated Pest Management (IPM) Plan
- 2) Managed in accordance with a sustainable landscape management program

And/or

- 3) Organic, certified and/or protected

The level at which an area of grounds is managed may be determined as outlined in the table below:

Management Level	Standards and/or Certifications Required
1) IPM Plan	IPM plan calls for: <ul style="list-style-type: none"><li>• Using least-toxic chemical pesticides,</li><li>• Minimum use of chemicals, and</li><li>• Use of chemicals only in targeted locations and only for targeted species</li></ul>

<p>2) Sustainable Landscape Management Program</p>	<p>The program includes formally adopted guidelines, policies and/or practices that cover all of the following:</p> <ul style="list-style-type: none"> <li>• Integrated pest management (see above)</li> <li>• Plant stewardship - protecting and using existing vegetation (e.g. through the use of a tree care plan), using native and ecologically appropriate plants, and controlling and managing invasive species</li> <li>• Soil stewardship - organic soils management practices that restore and/or maintain a natural nutrient cycle and limit the use of inorganic fertilizers and chemicals</li> <li>• Use of environmentally preferable materials - utilizing reused, recycled and local and sustainably produced landscape materials</li> <li>• Hydrology and water use - restoring and/or maintaining the integrity of the natural hydrology by promoting water infiltration, minimizing or eliminating the use of potable water for irrigation, and protecting/restoring riparian, wetland, and shoreline habitats and lost streams</li> <li>• Materials management and waste minimization - composting and/or mulching waste from groundskeeping, including grass trimmings</li> <li>• Snow and ice management (if applicable) - implementing technologies or strategies to reduce the environmental impacts of snow and ice removal</li> </ul>
<p>3) Organic, Certified and/or Protected</p>	<p>Protected areas and land that is:</p> <ul style="list-style-type: none"> <li>• Maintained in accordance with an organic land care standard or sustainable landscape management program that has eliminated the use of inorganic fertilizers and chemical pesticides, fungicides and herbicides in favor of ecologically preferable materials</li> <li>• Certified Organic</li> <li>• Certified under the Forest Stewardship Council (FSC) Forest Management standard</li> <li>• Certified under the Sustainable Sites Initiative™ (SITES™) and/or</li> <li>• Managed specifically for carbon sequestration (as documented in policies, land management plans or the equivalent)</li> </ul>

Land that meets multiple criteria should not be double-counted. An area of grounds that does not meet the standards specified for a particular management level should be reported at the next appropriate level for which it does meet the standards. For example, a landscape management program that includes an IPM plan and meets some, but not all, of the other standards listed for a sustainable landscape management plan should be reported at level 1 (IPM Plan).

**Submission Note:**



Campus area was calculated from MIT-owned parcels classified as "academic" or "leased" by MIT FIS. (Parcels classified as "investment" were excluded because they are not directly involved in campus operations.)

"---" indicates that no data was submitted for this field

**Figures required to calculate the total area of managed grounds::**

	Area
<b>Total campus area</b>	168.40 Acres
<b>Footprint of the institution's buildings</b>	71.10 Acres
<b>Area of undeveloped land, excluding any protected areas</b>	0 Acres

**Area of managed grounds that is::**

	Area
<b>Managed in accordance with an Integrated Pest Management (IPM) Plan</b>	97.30 Acres
<b>Managed in accordance with a sustainable landscape management program that includes an IPM plan and otherwise meets the criteria outlined</b>	0 Acres
<b>Managed organically, third party certified and/or protected</b>	0 Acres

**A copy of the IPM plan:**

[Green Cleaning MIT-Final 6-26-014.pdf](#)

**The IPM plan :**

MIT's Low Impact Pest Control Policy is described on pages 10 and 11 of the attached Green Cleaning Program. MIT commits to using the least toxic chemical pesticides in the minimum amount to be effective, and to using pest control chemicals only in targeted locations and for targeted species.

**A brief summary of the institution's approach to sustainable landscape management:**

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**A brief description of how the institution protects and uses existing vegetation, uses native and ecologically appropriate plants, and controls and manages invasive species:**

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**A brief description of the institution's landscape materials management and waste minimization policies and practices:**

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**A brief description of the institution's organic soils management practices:**

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**A brief description of the institution's use of environmentally preferable materials in landscaping and grounds management:**

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**A brief description of how the institution restores and/or maintains the integrity of the natural hydrology of the campus:**

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**A brief description of how the institution reduces the environmental impacts of snow and ice removal (if applicable):**

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**A brief description of any certified and/or protected areas:**

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**Is the institution recognized by the Arbor Day Foundation's Tree Campus USA program (if applicable)?:**

No

**The website URL where information about the institution's sustainable landscape management programs and practices is available:**

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

The institution conducts one or both of the following:

- An assessment to identify endangered and vulnerable species (including migratory species) with habitats on institution-owned or -managed land

And/or

- An assessment to identify environmentally sensitive areas on institution-owned or -managed land

The institution has plans or programs in place to protect or positively affect the species, habitats and/or environmentally sensitive areas identified.

Assessments conducted and programs adopted by other entities (e.g. government, university system, NGO) may count for this credit as long as the assessments and programs apply to and are followed by the institution.

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*"---" indicates that no data was submitted for this field*

## **Does the institution own or manage land that includes or is adjacent to legally protected areas, internationally recognized areas, priority sites for biodiversity, and/or regions of conservation importance?:**

Yes

## **A brief description of any legally protected areas, internationally recognized areas, priority sites for biodiversity, and/or regions of conservation importance on institution owned or managed land:**

The main campus is adjacent to (but does not intersect) the Charles River, which has been designated as Core Habitat and Critical Natural Landscape by the Massachusetts Natural Heritage & Endangered Species Program and the Nature Conservancy's Massachusetts Program (NHESP/TNC BioMap2, 2010).

## **Has the institution conducted an assessment or assessments to identify endangered and vulnerable species with habitats on institution-owned or –managed land?:**

Yes

## **Has the institution conducted an assessment or assessments to identify environmentally sensitive areas on institution-owned or –managed land?:**

Yes

**The methodology(-ies) used to identify endangered and vulnerable species and/or environmentally sensitive areas and any ongoing assessment and monitoring mechanisms:**

Using publicly available spatial data from MassGIS, the boundaries of MIT's campus were compared with the boundaries of the following designated conservation areas:

- Areas of Critical Environmental Concern (ACEC) designated by the Secretary of Energy and Environmental Affairs (April 2009)
- Core Habitat and Critical Natural Landscape designated by the Massachusetts Natural Heritage & Endangered Species Program and the Nature Conservancy's Massachusetts Program (BioMap2) (February 2011)
- Estimated Habitats of Rare Wildlife (October 2008), Priority Habitats of Rare Species (October 2008), Certified Vernal Pools (January 2013), Potential Vernal Pools (December 2000), and Natural Communities (November 2011) documented in the Natural Heritage and Endangered Species Program (NHESP) database
- Protected open space identified by the Executive Office of Energy and Environmental Affairs (June 2014)

None of these designated conservation or habitat areas were found to intersect with the main MIT campus.

Source:

<http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/layerlist.html#ConservationRecreation>

**A brief description of identified species, habitats and/or environmentally sensitive areas:**

None of the designated conservation or habitat areas listed above intersected with the main MIT campus. Therefore, there are no environmentally sensitive areas, and it is highly unlikely that any endangered or vulnerable species would be found on campus.

**A brief description of plans or programs in place to protect or positively affect identified species, habitats and/or environmentally sensitive areas:**

Because there are no environmentally sensitive areas, and it is highly unlikely that any endangered or vulnerable species would be found on campus, no plans or programs are necessary.

**The website URL where information about the institution's biodiversity policies and programs(s) is available:**

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# Purchasing

This subcategory seeks to recognize institutions that are using their purchasing power to help build a sustainable economy. Collectively, colleges and universities spend many billions of dollars on goods and services annually. Each purchasing decision represents an opportunity for institutions to choose environmentally and socially preferable products and services and support companies with strong commitments to sustainability.

<b>Credit</b>
Electronics Purchasing
Cleaning Products Purchasing
Office Paper Purchasing
Inclusive and Local Purchasing
Life Cycle Cost Analysis
Guidelines for Business Partners

## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### *Part 1*

Institution has an institution-wide stated preference to purchase computers and/or other electronic products that are EPEAT registered or meet similar multi-criteria sustainability standards for electronic products. This can take the form of purchasing policies, guidelines, or directives.

Policies and directives adopted by entities of which the institution is part (e.g. government or university system) may count for this credit as long as the policies apply to and are followed by the institution.

### *Part 2*

Institution purchases EPEAT registered products for desktop and notebook/laptop computers, displays, thin clients, televisions and imaging equipment.

This credit does not include servers, mobile devices such as tablets and smartphones, or specialized equipment for which no EPEAT certified products are available.

---

### **Submission Note:**

Total expenditure is the sum of procurement orders labeled "IT Hardware - Desktop" in FY2013. This figure was calculated by Chaewon Ahn and Jeff Treviño as part of Professor John Fernández's MIT Material Flow Analysis, using records from MIT Procurement.

"---" indicates that no data was submitted for this field

**Does the institution have an institution-wide stated preference to purchase computers and/or other electronic products that are EPEAT registered or meet similar multi-criteria sustainability standards for electronic products?:**

Yes

**A copy of the electronics purchasing policy, directive, or guidelines:**

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**The electronics purchasing policy, directive, or guidelines :**

The MIT Green Committee encourages MIT employees to purchase computers and other electronic equipment certified by EPEAT (

<http://web.mit.edu/workinggreen/buy/atmit.html>

) and directs them to EPEAT's online registry, where they can search for products with high environmental ratings (

<http://www.epeat.net>

).

**A brief description of steps the institution has taken to ensure that the purchasing policy, directives, or guidelines are followed:**

While MIT has formally stated its preference for purchasing EPEAT registered electronic equipment, these guidelines are voluntary. However, through the Working Green committee, MIT support and administrative staff volunteer their time to educate MIT's workforce and encourage sustainable behaviors, such as the purchase of EPEAT registered products (

<http://web.mit.edu/workinggreen/buy/index.html>

).

**Does the institution wish to pursue to pursue Part 2 of this credit (expenditures on EPEAT registered electronics)?:**

No

**Expenditures on EPEAT registered desktop and laptop computers, displays, thin clients, televisions, and imaging equipment::**

	Expenditure Per Level
EPEAT Bronze	---
EPEAT Silver	---
EPEAT Gold	---

**Total expenditures on desktop and laptop computers, displays, thin clients, televisions, and imaging equipment:**

1,638,775 US/Canadian \$

**The website URL where information about the institution's electronics purchasing policy, directive, or guidelines is available:**

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# Cleaning Products Purchasing

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### *Part 1*

Institution has an institution-wide stated preference to purchase cleaning and janitorial products that are Green Seal™ or UL Environment (EcoLogo)™ certified and/or meet similar multi-criteria sustainability standards for cleaning and janitorial products. This can take the form of purchasing policies, guidelines, or directives.

Policies and directives adopted by entities of which the institution is part (e.g. government or the university system) may count for this credit as long as the policies apply to and are followed by the institution.

### *Part 2*

Institution's main cleaning or housekeeping department(s) and/or contractor(s) purchase Green Seal or UL Environment (EcoLogo) certified cleaning and janitorial products.

Cleaning and janitorial products include, at minimum:

- Cleaning/degreasing agents
  - General-purpose, bathroom, glass, and carpet cleaners
  - Biologically-active cleaning products (enzymatic and microbial products)
  - Floor-care products, e.g. floor finish and floor finish strippers
  - Hand cleaners
  - Sanitary paper products, e.g. toilet tissue, facial tissue, paper towels, napkins, and placemats
  - Plastic film products (e.g. garbage bags/liners)
  - Laundry care products including powder, liquid or pre-measured dosage laundry detergents, stain removers and dryer sheets
  - Specialty surface cleaning products and odor removers, including but not limited to: boat cleaning products; deck and outdoor furniture cleaning products; graffiti removers; metal cleaning products; motor vehicle (automotive/tire/wheel) cleaning products; motor vehicle windshield washing fluid; optical lens cleaning products; oven cleaning products; upholstery cleaning products; and other cleaning products sold for specific specialty uses
- 

"---" indicates that no data was submitted for this field

**Does the institution have an institution-wide stated preference to purchase third party certified cleaning and janitorial products?:**

Yes



**A copy of the green cleaning product purchasing policy, directive, or guidelines:**

[Green Cleaning MIT-Final 6-26-014.pdf](#)

**The green cleaning product purchasing policy, directive, or guidelines:**

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**A brief description of steps the institution has taken to ensure that the purchasing policy, directives, or guidelines are followed:**

In the attached Green Cleaning Program, MIT's Custodial Team has committed to using 100% sustainable cleaning products (defined as products certified by Green Seal, Eco Logo, and US EPA Comprehensive Procurement Guidelines for Paper and Plastic Liners) within the next five years.

To ensure this directive is followed, the Custodial Team will be responsible for implementation of and updates to this policy, which will also be used as a training guideline for the annual training for all Facilities custodial services employees. The results of the green cleaning program will be documented by the Operations Manager and reviewed on an annual basis with MIT Operations. An annual report will at a minimum include chemical use listing, safety/incident review, and performance/inspection documents.

In addition, MIT support and administrative staff volunteer their time with the Green Committee to educate MIT's workforce and encourage sustainable behaviors, such as the purchase of green cleaning products (

<http://web.mit.edu/workinggreen/buy/index.html>

).

**Does the institution wish to pursue Part 2 of this credit (expenditures on cleaning and janitorial products)?:**

Yes

**Expenditures on Green Seal and/or UL Environment (EcoLogo) certified cleaning and janitorial products:**

619,510 US/Canadian \$

**Total expenditures on cleaning and janitorial products:**

791,862 US/Canadian \$

**Has the institution's main cleaning or housekeeping department(s) and/or contractor(s) adopted a Green Seal or ISSA certified low-impact, ecological ("green") cleaning program?:**

Yes

**A brief description of the institution's low-impact, ecological cleaning program:**

"MIT's Custodial Services strive to continuously develop a more sustainable approach to keeping the Institute clean and healthy, choosing equipment and procedures that reduce environmental impact, promote healthy indoor air quality, and are cost-effective. A signature staple of the program is the "eco floor scrubber," which cleans floors at MIT by electrically converting water into a

chemical-free cleaning solution, uses 70% less water than other scrubbers, and is safer because it leaves the floors completely dry. Custodians also use wet mops that are manufactured from recycled and renewable raw materials that use less energy and water to produce. To reduce exposure to chemicals, Custodial Services use “command centers” that provide pre-diluted chemicals and are set in strategic locations that give custodians the opportunity to fill their cleaning containers more easily, quickly and safely. The dispensing units allow for the proper dilution of chemicals. Cleaning chemicals are also Green Seal approved and are healthier for the Institute's custodial staff and the MIT Community." (

<https://sustainability.mit.edu/sustainability-today/campus-systems>

)

**A copy of the sections of the cleaning contract(s) that reference certified green products:**

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**The sections of the cleaning contract(s) that reference certified green products:**

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**The website URL where information about the institution's green cleaning initiatives is available:**

<https://sustainability.mit.edu/sustainability-today/campus-systems>

# Office Paper Purchasing

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### Part 1

Institution has an institution-wide stated preference to purchase office paper that has recycled content, is certified by the Forest Stewardship Council (FSC), and/or is certified to meet similar multi-criteria sustainability standards for paper. This can take the form of purchasing policies, guidelines, or directives.

Policies and directives adopted by entities of which the institution is part (e.g. government or the university system) may count for this credit as long as the policies apply to and are followed by the institution.

### Part 2

Institution purchases office paper with post-consumer recycled, agricultural residue, and/or FSC certified content.

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## Submission Note:

Expenditure on paper for FY2013. Data obtained from supplier.

"---" indicates that no data was submitted for this field

**Does the institution have an institution-wide stated preference to purchase office paper that has recycled content and/or is certified to meet multi-criteria sustainability standards for paper?:**

Yes

**A copy of the paper purchasing policy, directive or guidelines:**

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**The paper purchasing policy, directive or guidelines:**

MIT's statement of its environmental goals includes a commitment to increasing the use of recycled-content products (

[http://ehs.mit.edu/site/sites/default/files/files/Sustainability%20Goals%20Oct%2001\(1\).pdf](http://ehs.mit.edu/site/sites/default/files/files/Sustainability%20Goals%20Oct%2001(1).pdf)

) In addition, the MIT Procurement Department (which oversees purchases for standard products and services that do not require additional departmental approval) endorses the purchase of recycled products (

[http://vpf.mit.edu/site/sourcing\\_procurement/policies\\_procedures/general\\_purchasing](http://vpf.mit.edu/site/sourcing_procurement/policies_procedures/general_purchasing)

).

The MIT Green Committee encourages university employees to purchase paper products made with recycled or post-consumer content, and offers suggestions for specific recycled paper products (

<http://web.mit.edu/workinggreen/buy/atmit.html>

).

**A brief description of steps the institution has taken to ensure that the purchasing policy, directives, or guidelines are followed :**

While MIT has formally stated its preference for purchasing paper with recycled content, these guidelines are voluntary. However, through the Working Green committee, MIT support and administrative staff volunteer their time to educate MIT's workforce and encourage sustainable behaviors, such as the purchase of recycled paper (

<http://web.mit.edu/workinggreen/buy/index.html>

).

**Does the institution wish to pursue Part 2 of this credit (expenditures on office paper)?:**

Yes

**Expenditures on office paper with the following levels of post-consumer recycled, agricultural residue, and/or FSC certified content::**

	<b>Expenditure Per Level</b>
<b>10-29 percent</b>	0 US/Canadian \$
<b>30-49 percent</b>	94,084 US/Canadian \$
<b>50-69 percent</b>	4,012 US/Canadian \$
<b>70-89 percent (or FSC Mix label)</b>	114,800 US/Canadian \$
<b>90-100 percent (or FSC Recycled label)</b>	11,658 US/Canadian \$

**Total expenditures on office paper :**

354,384 US/Canadian \$

**The website URL where information about the paper purchasing policy, directive, or guidelines is available:**

[http://vpf.mit.edu/site/sourcing\\_procurement/policies\\_procedures/general\\_purchasing](http://vpf.mit.edu/site/sourcing_procurement/policies_procedures/general_purchasing)

# Inclusive and Local Purchasing

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### *Part 1*

Institution has an institution-wide stated intent to support disadvantaged businesses, social enterprises, and/or local community-based businesses.

Support could take the form of giving preference during RFP processes, conducting targeted outreach to these businesses about opportunities to work with the institution, and/or other efforts to increase purchases made from such businesses.

### *Part 2*

Institution makes purchases from companies that include disadvantaged businesses, social enterprises and/or local community-based businesses.

Purchases that meet multiple criteria listed above should not be double counted. Food and beverage purchases, which are covered by *OP 6: Food and Beverage Purchasing* and *OP 7: Low Impact Dining*, are not included in this credit.

---

"---" indicates that no data was submitted for this field

**Does the institution have an institution-wide stated intent to support disadvantaged businesses, social enterprises, and/or local community-based businesses?:**

Yes

**A copy of the policy, guidelines or directive governing inclusive and local purchasing:**

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**The policy, guidelines or directive governing inclusive and local purchasing:**

"The inclusion of Cambridge, minority, woman owned and small business vendors in the procurement process at MIT is a major component of the institution's commitment to Diversity Spending. When purchasing products and services, please consider using vendors in these categories." (

<http://learn2buy.mit.edu/fundamentals>

)

In addition, the MIT Green Committee encourages MIT employees to buy local whenever possible, and suggests that they select local vendors listed by Cambridge Local First (

<http://web.mit.edu/workinggreen/buy/atmit.html>

;

<http://cambridgelocalfirst.org>

).

**Does the institution wish to pursue Part 2 of this credit (inclusive and local expenditures)?:**

No

**The percentage of total purchases from disadvantaged businesses, social enterprises and/or local community-based businesses:**

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**The website URL where information about the institution's inclusive and local purchasing policies and/or program is available:**

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# Life Cycle Cost Analysis

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution employs Life Cycle Cost Analysis (LCCA) as a matter of policy and practice when evaluating energy- and water-using products and systems. Practices may include structuring RFPs so that vendors compete on the basis of lowest total cost of ownership (TCO) in addition to (or instead of) purchase price.

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*"---" indicates that no data was submitted for this field*

**Does the the institution employ Life Cycle Cost Analysis (LCCA) as a matter of policy and practice when evaluating energy and water-using products and systems?:**

Yes

**Does the institution employ LCCA as a matter of policy and practice across the operations of the entire institution (i.e. all divisions)?:**

Yes

**A brief description of the LCCA policy(ies) and practice(s):**

"The initial, lifecycle and environmental costs and benefits of projects and programs will be considered in order to reduce the impact of the campus on the environment within realistic parameters."

"The total cost MIT incurs in any project involves funding from a variety of sources, including funding for initial capital development, for operating, repair and maintenance costs, and for replacements. MIT and the larger world of which we are a part also incur environmental costs from projects at every stage of development, use and replacement. In order to incur as little overall cost as possible both in the interim and under MIT's ultimate standard, MIT must make integrated decisions involving all constituencies with concern about any of these costs. During the interim and under any ultimate standard, initial investment and life cycle costs, as well as those environmental costs which do not translate well into either category (such as greenhouse gas emissions, indoor air quality and use of nonrenewable materials), will be taken into account throughout all stages of projects and programs."

Source: Environmental Goals for MIT,

[http://ehs.mit.edu/site/sites/default/files/files/Sustainability%20Goals%20Oct%2001\(1\).pdf](http://ehs.mit.edu/site/sites/default/files/files/Sustainability%20Goals%20Oct%2001(1).pdf)



**The website URL where information about the institution's LCCA policies and practices is available:**

[http://ehs.mit.edu/site/sites/default/files/files/Sustainability%20Goals%20Oct%2001\(1\).pdf](http://ehs.mit.edu/site/sites/default/files/files/Sustainability%20Goals%20Oct%2001(1).pdf)

# Guidelines for Business Partners

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution has and acts on policies, guidelines and/or agreements that set expectations about the social and environmental responsibility of its business partners. The policies, guidelines and/or agreements require new and/or existing vendors and contractors and/or franchisees to adhere to:

1) Minimum environmental standards and practices defined by the institution, for example as outlined by the institution's sustainability policies

And/or

2) Minimum standards and practices governing employee wages, benefits, working conditions and rights that are consistent with fundamental International Labor Organization (ILO) conventions.

All enterprises with employees on-site as part of regular campus operations (e.g. contractors and franchisees) and other standing and/or formal business relationships (e.g. regular vendors and contracted services) are included.

Businesses that produce and/or sell licensed articles bearing the institution's trademarked logo ("licensees") are not included. They are covered in *EN 15: Trademark Licensing*.

The credit acknowledges institutional engagement in selecting its business partners and guiding them toward sustainability. Policies, guidelines or practices of the businesses themselves do not count for this credit in the absence of institutional selection criteria and/or guidance. Requiring compliance with existing legislation does not count on its own, but may be included as part of broader requirements that meet the criteria outlined above.

Policies adopted by entities of which the institution is part (e.g. government or university system) may count for this credit as long as the policies apply to and are followed by the institution.

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### Submission Note:

MIT does not currently require its vendors and contractors to adhere to minimum sustainability standards and practices defined by the institution ([http://vpf.mit.edu/site/sourcing\\_procurement/policies\\_procedures/for\\_suppliers](http://vpf.mit.edu/site/sourcing_procurement/policies_procedures/for_suppliers)).

However, MIT does require vendors and contractors to adhere to minimum standards governing employee wages, benefits, working conditions, and rights, such as OSHA specifications, equal employment opportunity, affirmative action for disabled individuals, overtime compensation, and safety standards (

).

"---" indicates that no data was submitted for this field

**How many of the institution's business partners are covered by policies, guidelines and/or agreements that require adherence to minimum environmental standards?:**

None

**How many of the institution's business partners are covered by policies, guidelines and/or agreements that require adherence to minimum standards governing employee wages, benefits, working conditions and rights?:**

All

**A copy of the policies, guidelines, and/or agreements with the institution's business partners (or a representative sample):**

[MIT\\_PO\\_GP\\_Products and Services\\_3\\_31\\_14.pdf](#)

**The policies, guidelines, and/or agreements with the institution's business partners (or a representative sample):**

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**A brief description of programs and strategies institution has implemented to ensure that the guidelines are followed, including a brief description of instances when the guidelines have changed purchasing behavior, if applicable:**

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**The website URL where information about the institution's guidelines for its business partners is available:**

[http://vpf.mit.edu/site/sourcing\\_procurement/policies\\_procedures/for\\_suppliers](http://vpf.mit.edu/site/sourcing_procurement/policies_procedures/for_suppliers)

# Transportation

This subcategory seeks to recognize institutions that are moving toward sustainable transportation systems. Transportation is a major source of greenhouse gas emissions and other pollutants that contribute to health problems such as heart and respiratory diseases and cancer. Due to disproportionate exposure, these health impacts are frequently more pronounced in low-income communities next to major transportation corridors. In addition, the extraction, production, and global distribution of fuels for transportation can damage environmentally and/or culturally significant ecosystems and may financially benefit hostile and/or oppressive governments.

At the same time, campuses can reap benefits from modeling sustainable transportation systems. Bicycling and walking provide human health benefits and mitigate the need for large areas of paved surface, which can help campuses to better manage storm water. Institutions may realize cost savings and help support local economies by reducing their dependency on petroleum-based fuels for transportation.

<b>Credit</b>
Campus Fleet
Student Commute Modal Split
Employee Commute Modal Split
Support for Sustainable Transportation

## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution supports alternative fuel and power technology by including in its motorized vehicle fleet vehicles that are:

- A. Gasoline-electric hybrid
- B. Diesel-electric hybrid
- C. Plug-in hybrid
- D. 100 percent electric
- E. Fueled with Compressed Natural Gas (CNG)
- F. Hydrogen fueled
- G. Fueled with B20 or higher biofuel for more than 4 months of the year

And/or

- H. Fueled with locally produced, low-level (e.g. B5) biofuel for more than 4 months of the year (e.g. fuel contains cooking oil recovered and recycled on campus or in the local community)

For this credit, the institution's motorized fleet includes all cars, carts, trucks, tractors, buses and similar vehicles used for transporting people and/or goods, including both leased vehicles and vehicles that are institution-owned and operated. Heavy construction equipment (e.g. excavators and pavers), maintenance equipment (e.g. lawn-mowers and leaf blowers), and demonstration/test vehicles used for educational purposes are not included in this credit.

Vehicles that meet multiple criteria (e.g. hybrid vehicles fueled with biofuel) should not be double-counted.

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### Submission Note:

Fleet inventory is drawn from the MIT GHG inventory conducted by Alex Marks. That list did not include electric vehicles, so these were added by consulting with Joe D'Etremont at MIT Facilities. Campus shuttles were added by consulting with Larry Brutti, Operations Manager, MIT Parking & Transportation Office.

"---" indicates that no data was submitted for this field

**Total number of vehicles in the institution's fleet :**

**Number of vehicles in the institution's fleet that are::**

	<b>Number of Vehicles</b>
<b>Gasoline-electric, non-plug-in hybrid</b>	6
<b>Diesel-electric, non-plug-in hybrid</b>	0
<b>Plug-in hybrid</b>	0
<b>100 percent electric</b>	5
<b>Fueled with compressed natural gas (CNG)</b>	1
<b>Hydrogen fueled</b>	0
<b>Fueled with B20 or higher biofuel for more than 4 months of the year</b>	0
<b>Fueled with locally produced, low-level (e.g. B5) biofuel for more than 4 months of the year</b>	12

**A brief description of the institution's efforts to support alternative fuel and power technology in its motorized fleet:**

## Mobility

MIT advances the use of alternative commuter transportation to and from campus, seeks to minimize air travel, and deploys efficient, low-emission vehicles in its campus fleet in order to reduce environmental impact associated with transportation emissions and promote a healthy, interconnected community.

## Getting to and from campus

MIT has implemented a variety of programs to encourage its students, faculty, and staff to get to and from campus using alternative transportation – such as biking, using public transportation, carpooling, and car-sharing. These programs have earned MIT the EPA's "Best Workplace for Commuters" designation. Read more about resources available to staff, students, and faculty at MIT's Commuter Connections.

## MIT's vehicle fleet

MIT is committed to maintaining an efficient fleet of vehicles that run on alternative fuel. Campus shuttles currently are fueled with a commercial biodiesel and in 2011, the Department of Facilities introduced into its fleet its first all-electric full-service vehicle, a Ford Transit Connect modified by Azure Dynamics. With a range of 50-80 miles and a top speed of 75 mph, the vehicle will be used by MIT Mail Services and monitored for its performance.

MIT has made continuous efforts to “right size” its vehicle fleet by replacing 6- and 8-cylinder vehicles with fuel efficient and alternative fuel vehicles. The Institute has also collaborated with the City of Cambridge to retrofit diesel vehicles with pollution control devices.

#### Electric vehicle charging stations

In 2012, MIT began installing ChargePoint networked electric vehicle charging stations for use by the MIT community and the public. Charging stations are currently located at building WW15 (2 stations for 4 parking spots), Building 46 (2 stations for 4 parking spots), and Building 32 (1 station for 1 parking spot). These installations are intended to advance regional infrastructure to support the adoption of electric vehicles through a collaborative program with the City of Cambridge. MIT plans to add additional charging stations in the spring of 2014, for a total capacity to charge 25 electric vehicles on campus.

**The website URL where information about the institution's support for alternative fuel and power technology is available:**

[http://sustainability.mit.edu/sustainability-today/campus-systems?qt-campus\\_systems=3#qt-campus\\_systems](http://sustainability.mit.edu/sustainability-today/campus-systems?qt-campus_systems=3#qt-campus_systems)

# Student Commute Modal Split

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution's students commute to and from campus using more sustainable commuting options such as walking, bicycling, vanpooling or carpooling, taking public transportation, riding motorcycles or scooters, riding a campus shuttle, or a combination of these options.

Students who live on campus should be included in the calculation based on how they get to and from their classes.

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### Submission Note:

MIT's Transportation Survey currently does not track the number of people who commute by motorcycle, scooter, or moped so this number is reported as 0%, but is likely higher than this value.

<http://web.mit.edu/ir/surveys/pdf/transportation2014-draft.pdf>

"---" indicates that no data was submitted for this field

## Total percentage of students that use more sustainable commuting options:

97

## The percentage of students that use each of the following modes as their primary means of transportation to get to and from campus::

	Percentage (0-100)
Commute with only the driver in the vehicle (excluding motorcycles and scooters)	2
Walk, bicycle, or use other non-motorized means	68.20
Vanpool or carpool	5
Take a campus shuttle or public transportation	21.20



**A brief description of the method(s) used to gather data about student commuting:**

Every two years, MIT administers a Transportation Survey via email to understand how the MIT community commutes to campus. The State of Massachusetts and the City of Cambridge require that MIT collect data related to how students and staff get to MIT every day. In addition, this survey gives MIT the opportunity to find out if transportation-related services (subsidized T-passes, bicycle racks, parking access, etc.) are meeting community needs.

**The website URL where information about sustainable transportation for students is available:**

<http://web.mit.edu/facilities/transportation/>

# Employee Commute Modal Split

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution's employees (faculty, staff, and administrators) get to and from campus using more sustainable commuting options such as walking, bicycling, vanpooling or carpooling, taking public transportation, riding motorcycles or scooters, riding a campus shuttle, telecommuting, or a combination of these options.

Employees who live on campus should be included in the calculation based on how they get to and from their workplace.

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### Submission Note:

MIT's Transportation Survey currently does not track the number of people who commute by motorcycle, scooter, or moped and as a result, this number is reported as 0%, though is likely higher than this value.

<http://web.mit.edu/ir/surveys/pdf/transportation2014-draft.pdf>

"---" indicates that no data was submitted for this field

## Total percentage of the institution's employees that use more sustainable commuting options:

71

## The percentage of the institution's employees that use each of the following modes as their primary means of transportation to and from campus::

	Percentage (0-100)
Commute with only the driver in the vehicle (excluding motorcycles and scooters)	28
Walk, bicycle, or use other non-motorized means	17.90
Vanpool or carpool	6.60

<b>Take a campus shuttle or public transportation</b>	41.90
<b>Use a motorcycle, scooter or moped</b>	0
<b>Telecommute for 50 percent or more of their regular work hours</b>	0

**A brief description of the method(s) used to gather data about employee commuting:**

Every two years, MIT administers a Transportation Survey via email to understand how the MIT community commutes to campus. The State of Massachusetts and the City of Cambridge require that MIT collect data related to how students and staff get to MIT every day. In addition, this survey gives MIT the opportunity to find out if transportation-related services (subsidized T-passes, bicycle racks, parking access, etc.) are meeting community needs.

**The website URL where information about sustainable transportation for employees is available:**

<http://web.mit.edu/facilities/transportation/>

# Support for Sustainable Transportation

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### *Part 1*

The institution demonstrates its support for active (i.e. non-motorized) transportation on campus in one or more of the following ways:

Option A: Institution:

- Provides secure bicycle storage (not including office space), shower facilities, and lockers for bicycle commuters. The storage, shower facilities and lockers are co-located in at least one building/location that is accessible to all commuters.
- Provides short-term bicycle parking (e.g. racks) within 50 ft (15 m) of all occupied, non-residential buildings and makes long-term bicycle storage available within 330 ft (100 m) of all residence halls (if applicable).
- Has a “complete streets” or bicycle accommodation policy (or adheres to a local community policy) and/or has a continuous network of dedicated bicycle and pedestrian paths and lanes that connects all occupied buildings and at least one inter-modal transportation node (i.e. transit stop or station)

And/or

- Has a bicycle-sharing program or participates in a local bicycle-sharing program

Option B: Institution is certified as a Bicycle Friendly University (at any level) by the League of American Bicyclists (U.S.) or under a similar third party certification for non-motorized transportation.

### *Part 2*

Institution has implemented one or more of the following strategies to encourage more sustainable modes of transportation and reduce the impact of student and employee commuting. The institution:

- Offers free or reduced price transit passes and/or operates a free campus shuttle for commuters. The transit passes may be offered by the institution itself, through the larger university system of which the institution is a part, or through a regional program provided by a government agency.
- Offers a guaranteed return trip (GRT) program to regular users of alternative modes of transportation
- Participates in a car/vanpool or ride sharing program and/or offers reduced parking fees or preferential parking for car/vanpoolers
- Participates in a car sharing program, such as a commercial car-sharing program, one administered by the institution, or one administered by a regional organization
- Has one or more Level 2 or Level 3 electric vehicle recharging stations that are accessible to student and employee commuters
- Offers a telecommuting program for employees, either as a matter of policy or as standard practice
- Offers a condensed work week option for employees, either as a matter of policy or as standard practice
- Has incentives or programs to encourage employees to live close to campus

- Other strategies

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"---" indicates that no data was submitted for this field

**Does the institution provide secure bicycle storage (not including office space), shower facilities, and lockers for bicycle commuters?:**

Yes

**A brief description of the facilities for bicycle commuters:**

The MIT Parking & Transportation Office administers bicycle compounds located in the rear of Building 13, in the West Garage, and under Building E53 in the Hermann Garage. Cards to access to the compounds can be requested by sending an email to

[commuting@mit.edu](mailto:commuting@mit.edu)

. Each bicycle must be registered with the MIT Parking & Transportation Office in order to gain access to a secure bike compound.

Shower facilities are available on a department-by-department basis.

In addition, there are eight bicycle fix-it stations on the main campus. Each station is equipped with an air pump and basic hand tools (such as screwdrivers, wrenches, and tire levers) to help commuters maintain their bikes for more efficient and safe commuting.

Source:

<http://web.mit.edu/facilities/transportation/bicycling.html#thumb>

**Does the institution provide short-term bicycle parking (e.g. racks) within 50 ft (15 m) of all occupied, non-residential buildings and make long-term bicycle storage available within 330 ft (100 m) of all residence halls (if applicable)?:**

No

**A brief description of the bicycle parking and storage facilities:**

MIT offers bike racks at 188 locations and indoor bike storage at 37 locations across the main campus. 46 of MIT's 123 occupied, non-residential buildings have bike racks within 50 feet, and 13 of MIT's 28 residence halls have indoor bike storage within 330 feet.

Source: MIT Facilities

**Does the institution have a “complete streets” or bicycle accommodation policy (or adhere to a local community policy) and/or have a continuous network of dedicated bicycle and pedestrian paths and lanes?:**

Yes

**A brief description of the bicycle/pedestrian policy and/or network:**

A network of bike routes (pathways, on-street bike lanes, cycle tracks, bike paths, multi-use paths, roadway edge lines, and shared lane pavement markings) connects MIT's buildings, the surrounding streets, the Kendall/MIT subway station, and multiple MBTA bus stops for bike rack equipped buses.

Source:

[http://mit.edu/facilities/transportation/Getting\\_Around\\_by\\_Bike\\_map.pdf](http://mit.edu/facilities/transportation/Getting_Around_by_Bike_map.pdf)

**Does the institution have a bicycle-sharing program or participate in a local bicycle-sharing program?:**

Yes

**A brief description of the bicycle sharing program:**

Current MIT employees and students can buy subsidized annual Hubway memberships and ride at a discounted hourly rate. The subsidized annual membership for MIT employees and students is \$25 (regularly \$85). There are currently two Hubway stations on campus: one located in the center of the main campus on Massachusetts Avenue, and another at the Stata Center on Vassar Street. A third Hubway station is located at the Kendall/MIT subway stop.

Source:

<http://web.mit.edu/facilities/transportation/bicycling.html#thumb>

**Is the institution certified as a Bicycle Friendly University by the League of American Bicyclists (U.S.) or under a similar third party certification covering non-motorized transportation?:**

No

**A brief description of the certification, including date certified and level:**

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**Does the institution offer free or reduced price transit passes and/or operate a free campus shuttle for commuters?:**

Yes

**A brief description of the mass transit program(s), (s), including availability, participation levels, and specifics about discounts or subsidies offered (including pre-tax options):**

Shuttles, operated by the Parking and Transportation Office, are available to the MIT community as an alternate mode of transportation. However, according to the 2012 MIT Transportation Survey, 3% or less of students and employees report using the shuttles as their primary means of commuting to campus.

MIT subsidizes 50% of the cost of monthly T-passes or MBTA commuter rail passes for registered students who have a current bursar account and do not have a full parking permit, and employees who are eligible for payroll deduction and do not have a full parking permit. They can elect to have the cost of the monthly passes deducted directly from their pre-tax monthly pay up to the maximum allowed under the tax rules (with the balance of the monthly deduction beginning after-tax). 34% of students and employees report purchasing these passes through MIT, according to the 2012 Transportation Survey.

Sources:

<http://web.mit.edu/facilities/transportation/shuttles/index.html>

;

<http://web.mit.edu/facilities/transportation/tpass.html>

;

<http://web.mit.edu/ir/surveys/commuting.html>

**Does the institution offer a guaranteed return trip (GRT) program to regular users of alternative modes of transportation?:**

Yes

**A brief description of the GRT program:**

The Emergency Ride Home (ERH) program, sponsored by MIT and run by the Charles River Transportation Management Association (TMA), provides eligible employees, who forego commuting alone in a car, with cab service in case of personal or family emergencies. Any MIT employee who uses public transportation, carpools, van pools, bikes, or walks to work at least three days per week may obtain a ride one time per month up to six times per year. Eligible circumstances are personal illness or emergency, family illness or emergency, and unscheduled or unplanned overtime. Employees must register with Charles River TMA prior to using the program.

Source:

<http://web.mit.edu/facilities/transportation/emergencyride.html>

**Does the institution participate in a car/vanpool or ride sharing program and/or offer reduced parking fees or preferential parking for car/vanpoolers?:**

Yes

**A brief description of the carpool/vanpool program:**

Commuters who want to join or start a carpool may identify themselves to their respective department Parking Coordinators. One member of the pool must be designated as the primary member or parker; the others will be secondary members. The primary parker

provides the names and departments of the other pool members on his/her parking application and submits it to his/her parking coordinator. This parker may choose payroll deduction or pay by check. In either case, the primary parker is responsible for the full fee. Each secondary parker must also complete a carpool/vanpool parking application and submit it to the primary parker's parking coordinator. The Parking Coordinator will assemble an application packet and submit it to the Parking and Transportation Office. The Parking and Transportation Office uses the information from the primary parker's Parking Coordinator to assign permits. The permits are bundled up with a hang tag, and the bundle delivered to the primary parker's Parking Coordinator, who passes the bundle to the primary parker. It is the responsibility of the primary parker to distribute permits to members of that carpool. At no time should more than one vehicle of a pool be parked on campus. Carpools and van pools do not count against a department's parking allocation. (Students may also obtain carpool permits by applying to the Parking and Transportation Office.) In addition, MIT makes it easier to share a ride by providing satellite parking in locations outside the city.

Source:

[http://web.mit.edu/facilities/transportation/ride\\_sharing.html](http://web.mit.edu/facilities/transportation/ride_sharing.html)

**Does the institution participate in a car sharing program, such as a commercial car-sharing program, one administered by the institution, or one administered by a regional organization?:**

Yes

**A brief description of the car sharing program:**

MIT employees and students can sign up for Zipcar to borrow a vehicle for a short period of time. MIT hosts thirteen Zipcars at ten locations on campus and sponsors Zipcar memberships for staff and students. An MIT sponsored member pays no application fee, no security deposit, and just a \$25.00 annual fee. Zipcars can be used by the hour or the day, and parking, insurance, and gas are included in the hourly and daily rates.

Source:

[http://web.mit.edu/facilities/transportation/car\\_sharing.html](http://web.mit.edu/facilities/transportation/car_sharing.html)

**Does the institution have one or more Level 2 or Level 3 electric vehicle recharging stations that are accessible to student and employee commuters?:**

Yes

**A brief description of the electric vehicle recharging stations:**

MIT students, faculty, staff, and visitors may charge electric vehicles while parked on campus. Twenty spaces are available inside the Stata and E62 garages, the North Area at Building 46, and the West Area at WW15. Stata and E62 spaces are open to MIT staff, students, and faculty, while the spaces at Building 46 and WW15 are open to all. Drivers can use the ChargePoint app or the locator map on the ChargePoint website to find and reserve open stations.



The driver of an electric vehicle parked for any period of time will pay \$0.50/hour for every hour the vehicle is actively charging. To use the spaces, drivers set up a ChargePoint account and receive a Radio Frequency Identification (RFID) card. Alternatively, they can set up a charge pass or pay by phone.

Source:

<http://web.mit.edu/facilities/transportation/parking/electricvehicle.html>

**Does the institution offer a telecommuting program for employees as a matter of policy or as standard practice?:**

No

**A brief description of the telecommuting program:**

Flexible work arrangements such as telecommuting are available, but require approval by a supervisor. The primary criteria for approval is whether the arrangement meets the business needs of the employee's workplace.

Source:

[http://hrweb.mit.edu/system/files/all/worklife/flexible\\_work\\_arrangements.pdf](http://hrweb.mit.edu/system/files/all/worklife/flexible_work_arrangements.pdf)

**Does the institution offer a condensed work week option for employees as a matter of policy or as standard practice?:**

No

**A brief description of the condensed work week program:**

Flexible work arrangements such as a condensed work week are available, but require approval by a supervisor. The primary criteria for approval is whether the arrangement meets the business needs of the employee's workplace.

Source:

[http://hrweb.mit.edu/system/files/all/worklife/flexible\\_work\\_arrangements.pdf](http://hrweb.mit.edu/system/files/all/worklife/flexible_work_arrangements.pdf)

**Does the institution have incentives or programs to encourage employees to live close to campus?:**

No

**A brief description of the incentives or programs to encourage employees to live close to campus:**

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**Does the institution have other incentives or programs to encourage more sustainable modes of transportation and reduce the impact of student and employee commuting?:**

Yes

**A brief description of other sustainable transportation initiatives and programs:**

The MIT Walk/Ride Day Challenge takes place on the last Friday of each month from Monday, June 23, 2014 through Friday, October 31, 2014. Through this challenge, MIT and the Parking and Transportation/Commuter Connections program encourage MIT employees to walk for all or part of their commute to work. Employees can take a short survey online to register walking achievements and be entered in an online raffle.

Source:

<http://web.mit.edu/facilities/transportation/walking.html>

**The website URL where information about the institution's sustainable transportation program(s) is available:**

<http://web.mit.edu/facilities/transportation/index.html>

# Waste

This subcategory seeks to recognize institutions that are moving toward zero waste by reducing, reusing, recycling, and composting. These actions mitigate the need to extract virgin materials, such as trees and metals. It generally takes less energy and water to make a product with recycled material than with virgin resources. Reducing waste generation also reduces the flow of waste to incinerators and landfills which produce greenhouse gas emissions, can contaminate air and groundwater supplies, and tend to have disproportionate negative impacts on low-income communities. Waste reduction and diversion also save institutions costly landfill and hauling service fees. In addition, waste reduction campaigns can engage the entire campus community in contributing to a tangible sustainability goal.

<b>Credit</b>
Waste Minimization
Waste Diversion
Construction and Demolition Waste Diversion
Hazardous Waste Management

# Waste Minimization

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### Part 1

Institution has implemented source reduction strategies to reduce the total amount of waste generated (materials diverted + materials disposed) per weighted campus user compared to a baseline.

### Part 2

Institution's total annual waste generation (materials diverted and disposed) is less than the minimum performance threshold of 0.45 tons (0.41 tonnes) per weighted campus user.

This credit includes on-campus dining services operated by the institution or the institution's primary on-site contractor.

Total waste generation includes all materials that the institution discards, intends to discard or is required to discard (e.g. materials recycled, composted, donated, re-sold and disposed of as trash) except construction, demolition, electronic, hazardous, special (e.g. coal ash), universal and non-regulated chemical waste, which are covered in *OP 24: Construction and Demolition Waste Diversion* and *OP 25: Hazardous Waste Management*.

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## Submission Note:

[http://sustainability.mit.edu/sustainability-today/campus-systems?qt-campus\\_systems=2#qt-campus\\_systems](http://sustainability.mit.edu/sustainability-today/campus-systems?qt-campus_systems=2#qt-campus_systems)

"---" indicates that no data was submitted for this field

## Waste generated::

	Performance Year	Baseline Year
Materials recycled	1,943.40 Tons	1,150 Tons
Materials composted	741.80 Tons	912 Tons

<b>Materials reused, donated or re-sold</b>	0 Tons	3.50 Tons
<b>Materials disposed in a solid waste landfill or incinerator</b>	3,059.40 Tons	3,218 Tons

**Figures needed to determine "Weighted Campus Users"::**

	<b>Performance Year</b>	<b>Baseline Year</b>
<b>Number of residential students</b>	5,981	5,641
<b>Number of residential employees</b>	25	25
<b>Number of in-patient hospital beds</b>	0	0
<b>Full-time equivalent enrollment</b>	11,192	10,429
<b>Full-time equivalent of employees</b>	8,956	8,470
<b>Full-time equivalent of distance education students</b>	0	0

**Start and end dates of the performance year and baseline year (or three-year periods):**

	<b>Start Date</b>	<b>End Date</b>
<b>Performance Year</b>	July 1, 2012	June 30, 2013
<b>Baseline Year</b>	July 1, 2009	June 30, 2011

**A brief description of when and why the waste generation baseline was adopted:**

The baseline is average 3 year (FY9-11), which is the earliest year for which detailed waste collection and diversion data are available.

**A brief description of any (non-food) waste audits employed by the institution:**

2 public waste audits have been performed over the past three years.

**A brief description of any institutional procurement policies designed to prevent waste:**

The MIT Green Committee provides guidelines on how MIT employees can prevent waste by "buying green." Suggestions include buying products with less packaging, renting or leasing goods rather than buying them outright, setting up service contracts that extend the life or use of materials, requesting that vendors use recycled or reused packaging materials, and reusing or recycling packing materials when they are received.

Sources:

<http://web.mit.edu/workinggreen/buy/index.html>

;

<http://web.mit.edu/workinggreen/buy/atmit.html>

MIT works to minimize the generation and toxicity of its waste and to increase the diversion of material from the waste stream through reuse, recycling, and composting. MIT also encourages the purchase of environmentally preferable and sustainably produced products and services throughout its supply chains. The Institute will continue to innovate in this area, as it moves toward an intentional and ecologically balanced approach to material management in which the Institute clearly understands and responds to the flow of materials that enter and leave campus.

#### Waste Management

MIT seeks to recognize the ecological and health impacts of its waste management decisions and aims to take into account the connection between materials that enter the campus and those that leave campus.

Through recycling, composting and conservation efforts, MIT has worked hard to reduce its overall waste disposal, which has saved money while reducing the Institute's environmental footprint. In 2012, MIT attained a 46 percent recycling rate. Read more about these efforts at the Department of Facilities website here.

The Environment, Health and Safety Office at MIT provides guidance and support to the MIT community on the proper management of the Institute's regulated waste. For more information on proper waste management, visit the EHS website here.

#### Reuse

Reuse is an important keystone of MIT's waste reduction efforts. The Institute has a number of programs in place for the community to find a second home for unneeded or unwanted items.

MIT ReUse is a service that allows MIT students, staff, faculty, and alumni to sell or exchange items. This listserv community promotes waste minimization through the reuse of usable goods. The Green Committee -- a committee of MIT's Working Group on Support Staff Issues -- operates an extensive list of MIT reuse programs and tips on ways to reduce waste.

Choose to Reuse is held in the Stata Center (Building 32) every third Thursday of the month. MIT community members can donate and pick up free clean, reusable items for free. The event is organized by the staff Green Committee. Visit their website for more information. Swapfest, held the third Sunday of every month, April through October, is a way to buy, sell, and swap electronic items.

#### **A brief description of any surplus department or formal office supplies exchange program that facilitates reuse of materials:**

MIT Equipment Exchange collects surplus lab, computer, and office furniture for reuse within the Institute; any items that are not claimed for on campus reuse are sold to the general public for reasonable prices (

<http://web.mit.edu/workinggreen/reuse/reuse.html>

).

In addition, the Property Department of MIT's Office of the Vice President for Finance transfers equipment and furniture from departments, labs, and centers that no longer need them to those that do (

[http://vpf.mit.edu/site/vpf\\_statement/2009/good\\_stuff\\_cheap\\_property\\_saves\\_dlcs\\_money\\_supports\\_](http://vpf.mit.edu/site/vpf_statement/2009/good_stuff_cheap_property_saves_dlcs_money_supports_)

[green\\_initiative](#)

).

**A brief description of the institution's efforts to make materials available online by default rather than printing them:**

Most class material is available first on-line via websites and course-ware.

**A brief description of any limits on paper and ink consumption employed by the institution:**

Students are provided a limited paper budget and MIT tracks central print jobs and charges above the budget.

**A brief description of any programs employed by the institution to reduce residence hall move-in/move-out waste:**

Each spring at the end of May, MIT hosts Stuff Fest, where students who are leaving the dorms for the summer can donate excess clothing and housewares. The event can generate more than 7,000 pounds of clothing, housewares, and food. Items can be claimed by other students for reuse. The Women's League also collects clothing for their Interview Clothing for Women and Men program and housewares for the MIT Student Furniture Exchange. Remaining items are sent to Planet Aid.

Source:

<http://web.mit.edu/workinggreen/reuse/reuse.html>

**A brief description of any other (non-food) waste minimization strategies employed by the institution:**

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Waste Management

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[STARS Reporting Tool](#) | [AASHE](#)

between materials that enter the campus and those that leave campus.

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#### **A brief description of any food waste audits employed by the institution:**

A food waste audit was done for one dining facility in our School of Management as part of a business school class project. Results were used to inform signage and composting collection processes.

#### **A brief description of any programs and/or practices to track and reduce pre-consumer food waste in the form of kitchen food waste, prep waste and spoilage:**

All major kitchen facilities have compost collection programs for diversion and collection.

#### **A brief description of programs and/or practices to track and reduce post-consumer food waste:**

Compost vendor tracks amounts generated.

#### **A brief description of the institution's provision of reusable and/or third party certified compostable to-go containers for to-go food and beverage items (in conjunction with a composting program):**

Created Green Events program to promote sustainable service ware. On campus food contractors have switched to compostable service ware in cafes.

#### **A brief description of the institution's provision of reusable service ware for "dine in" meals and reusable and/or third party certified compostable service ware for to-go meals (in conjunction with a composting program):**

Select dining halls provide reusable takeout containers for a fee and can be returned daily for exchange.



**A brief description of any discounts offered to customers who use reusable containers (e.g. mugs) instead of disposable or compostable containers in to-go food service operations:**

Campus cafes offer ten cent discounts for using reusable mugs for coffee purchases.

**A brief description of other dining services waste minimization programs and initiatives:**

---

**The website URL where information about the institution's waste minimization initiatives is available:**

[http://sustainability.mit.edu/sustainability-today/campus-systems?qt-campus\\_systems=2#qt-campus\\_systems](http://sustainability.mit.edu/sustainability-today/campus-systems?qt-campus_systems=2#qt-campus_systems)

# Waste Diversion

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution diverts materials from the landfill or incinerator by recycling, composting, reusing, donating, or re-selling.

This credit includes on-campus dining services operated by the institution or the institution's primary on-site contractor.

This credit does not include construction, demolition, electronic, hazardous, special (e.g. coal ash), universal and non-regulated chemical waste, which are covered in *OP 24: Construction and Demolition Waste Diversion* and *OP 25: Hazardous Waste Management*.

---

## Submission Note:

Sources: MIT Facilities waste collection data; description of recycled materials posted at <http://web.mit.edu/facilities/environmental/reuse.html>

"---" indicates that no data was submitted for this field

## Materials diverted from the solid waste landfill or incinerator:

2,685.20 Tons

## Materials disposed in a solid waste landfill or incinerator :

3,059.40 Tons

## A brief description of programs, policies, infrastructure investments, outreach efforts, and/or other factors that contributed to the diversion rate, including efforts made during the previous three years:

### Waste Management

MIT seeks to recognize the ecological and health impacts of its waste management decisions and aims to take into account the connection between materials that enter the campus and those that leave campus.

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The Environment, Health and Safety Office at MIT provides guidance and support to the MIT community on the proper management of the Institute's regulated waste. For more information on proper waste management, visit the EHS website here.

## Reuse

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## What Can Be Recycled at MIT?

The MIT recyclable waste stream is divided into over several categories: Batteries, Books, eWaste, Food Waste, Light Bulbs, Plastic Bags, Single Stream, TechnoCycle, Toner Cartridges, and White Goods. To find out how to recycle daily use items, see the list below. MIT Recycling also manages recycling streams for yard waste, wood, metal, tires, and materials from construction and development. Questions about recycling in the residence halls can be directed to the individual house managers.

Aluminum foil

Batteries

Books

Cans (aluminum, steel)

Cardboard

Cartons (milk and juice)

Catalogs

Clothing

Compost

Copiers

CDs/DVDs

eWaste

Fax machines

Filing cabinets (metal)

White goods

Food scraps

Glass bottles

Keyboards

Laptops

Light bulbs

Magazines

Manila envelopes

Mice

Monitors

Non recyclable items

Packing peanuts

Paper

Paper bags

Phones

Phonebooks

Pizza boxes

## Plastics (#1-7)

Plastic bags  
Plastic wrap  
Printers  
Refrigerators  
Shrink wrap  
Shredded documents  
Soy milk containers  
TechnoCycle  
Telephone book  
Toner cartridges

## Batteries

MIT accepts for recycling all types of batteries, including alkaline batteries. Batteries that must be recycled include: rechargeable batteries such as nickel cadmium, nickel metal hydride, lithium ion (button batteries used in watches and hearing aids), laptop batteries and lead acid batteries.

Battery terminals should be taped as a fire prevention measure during collection and transportation.

Battery disposal bins are located in DMCs and all residence halls. You may also take batteries to the Stratton Student Center, lower level; Stata Center, 1st floor; Facilities, NE49-2100; Facilities Stockroom, E19-107; and the VWR Stockroom, 56-068.

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## Books

Donate used books in our "Got Books" bins. There are two book bin locations on campus; one between Building 46 and Albany Garage and another in the West Lot off Vassar Street. The items you donate are sold to raise money for local causes. Items accepted include:

Books  
CDs  
DVD and VHS videos  
Audio books

Note: Items not accepted are encyclopedias, magazines, newspapers, or catalogs.

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## Cardboard

Small pieces of cardboard can be thrown in the desk-side bins or common area blue-top bins. Boxes and larger amounts can be placed beside the desk side bins and will be removed for recycling. Please help our custodians by flattening all of your cardboard boxes.

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## Clothing

Donate used clothing and shoes in one of the three Planet Aid bins on campus: between Building 46 and Albany Garage, between Buildings W34/W35 and Kresge Lot, and in Westgate Lot across from Building W71.

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## eWaste

Facilities removes electronic waste that weighs less than 50 lbs at no charge. To arrange for a pick up, go to Service Requests in Atlas. Please allow 3 to 5 days for the movers to come and take the equipment. Examples of eWaste include:

Copiers  
CRTs, CPUs  
DVD players  
Fax machines  
Laptops  
Microwaves  
Stereos  
Televisions

## VCRs

Note: Before recycling electronic material, make sure that you deactivate the Property Office sticker and erase the hard drive to remove sensitive data. Contact Mike McCarthy of the Property Office at

[mmccarth@mit.edu](mailto:mmccarth@mit.edu)

and IS&T at 253-1101 for more information.

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## Food Waste

The Recycling Office works with the community on collecting organic/compostable materials. Items that can be included are:

### Food

Paper goods, including napkins and paper towels

Compostable dinnerware

Note: Do not include plastic dinnerware or styrofoam.

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## Light Bulbs

State and Federal laws prohibit the disposal of mercury-containing light bulbs in the trash. Mercury containing light bulbs include:

Fluorescent

Compact Fluorescent (CFL)

Ultraviolet (UV)

To replace light bulbs or to request pickup of light bulbs, submit a request through Atlas under Repairs.

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## Non Recyclable Items

Candy wrappers

Styrofoam

Tissues, paper towels (napkins may be composted)

[to top]

## Packing Peanuts

Styrofoam products are not recyclable, so please ask vendors to avoid using it. You can donate reused packing peanuts in clean and usable condition to Mail Services for reuse. Send the peanuts to Mail Services in sealed bags through interdepartmental mail, place sealed bags on top of campus mail boxes, addressed to: Packing Peanuts Reuse Program, WW15.

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## Plastic Bags

Due to contamination in the bins, the quantity of plastic bag receptacles on campus was reduced. However, the Recycling Office is working on improving signage and plans to add containers to DMCs early in 2015. There is a plastic bag container at the elevator near the Stata Loading Dock and one in the basement of the Stratton Student Center.

Items accepted in the plastic bag recycling stream include:

Air packets (deflate them first)

Bubble wrap

Journal/magazine wrap

Plastic bags

Plastic wrap (must be clean and free of food residue)

Shrink wrap

Plastic bags should not be placed in blue recycling bins because they interfere with the materials when being sorted at the recycling facility.

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## Single Stream Recycling

In single stream, the collection and processing systems are designed to handle a

mixture of paper, plastics and cans together.

Include the following in your desk-side bin or common area bins:

Aluminum (pie plates/trays/foil)

Aseptic containers (soy milk containers, drink boxes)

Books (hardcover and softcover)

Cardboard/brown paper bags

Glass bottles/jars (any color)

Junk mail/envelopes (all types)

Metal cans (tin/steel/aluminum)

Milk/juice cartons

Newspapers, magazines, catalogs

Paper (all colors, staples/paperclips are okay)

Paperboard (cereal/shoe boxes)

Pizza boxes\*

Plastic bottles and containers numbered #1-7 (soda/juice/water bottles)

Plastic food containers (cottage cheese/margarine/yogurt)

Telephone books

Note: Please make sure bottles and cans are empty. In order to avoid contamination, please empty containers before putting them in a recycling bin.

\* Clean pizza boxes are easily recyclable. If the box is saturated with oil, however, it should go in with compostable materials. Sometimes a box may need to be ripped into two pieces. More information is available on what to do with pizza boxes

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Shredded Documents

The Recycling Office does not provide shredding services. To dispose of paper files use a shredding service or purchase an in-office shredder. Sensitive information should not be recycled in the blue recycling bins. For information about what must be protected and the best way to dispose of paper and electronic files, visit the Protecting Sensitive Information web pages.

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TechnoCycle

For small electronics, please use TechnoCycle bins located in Distributed Mail Centers. If you have a large amount of TechnoCycle, go to Service Requests in Atlas to arrange for a pick up.

The following items may be recycled as TechnoCycle:

CDs, DVDs, floppy disks, Zip disks

Audio and video tapes

Cell phones and pagers

Keyboards and mice

External drives and cables

Note: Before recycling electronic material, make sure that you deactivate the Property Office sticker and erase sensitive data. Contact Mike McCarthy of the Property Office at

[mmccarth@mit.edu](mailto:mmccarth@mit.edu)

and IS&T at 253-1101 for more information.

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Toner Cartridges

Recycle small empty toner cartridges and inkjet cartridges in the boxes located in the Distributed Mail Centers (DMCs). Large, empty toner cartridges can be returned to the manufacturer in the same box in which they came. Instructions come with the packaging.

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White Goods

Large appliances must be removed by an MIT Recycling Team member. To schedule a pick-up of your items, submit work order request through Atlas. Examples of white goods include:

Incubators

Refrigerators

Washing machines

Other large metal appliances

Labs should follow the MIT Environment, Health and Safety (EHS) Deactivating and Decommissioning Equipment Standard Operating Procedure and work with the MIT Property Office before scheduling a pickup.

Note: The proper disposal of white goods is regulated under both Massachusetts and, in most cases, Federal Law. Responsible handling of your white goods ensures that MIT and your department are complying with disposal restrictions. Equipment that has been improperly abandoned will be traced back to the source for removal charges.

**A brief description of any food donation programs employed by the institution:**

Departments on campus participate in an annual canned food collection for the Margaret Fuller Neighborhood House in Cambridge. When appropriate, food from large catered events are donated to local charities.

**A brief description of any pre-consumer food waste composting program employed by the institution:**

Food waste is collected in all major food service kitchens on campus and diverted to commercial composting facilities.

**A brief description of any post-consumer food waste composting program employed by the institution:**

Post consumer composting collection is available in high traffic areas across campus; and in several food service areas, and select dorms.

**Does the institution include the following materials in its waste diversion efforts?:**

	Yes or No
Paper, plastics, glass, metals, and other recyclable containers	Yes
Food donations	Yes
Food for animals	No
Food composting	Yes
Cooking oil	Yes
Plant materials composting	Yes

<b>Animal bedding composting</b>	No
<b>Batteries</b>	Yes
<b>Light bulbs</b>	Yes
<b>Toner/ink-jet cartridges</b>	Yes
<b>White goods (i.e. appliances)</b>	Yes
<b>Laboratory equipment</b>	Yes
<b>Furniture</b>	Yes
<b>Residence hall move-in/move-out waste</b>	Yes
<b>Scrap metal</b>	Yes
<b>Pallets</b>	Yes
<b>Motor oil</b>	Yes
<b>Tires</b>	Yes

**Other materials that the institution includes in its waste diversion efforts:**

MIT's waste diversions efforts include recycling mattresses and plastic bags, and collecting clothing for reuse via Planet Aid. In addition, MIT collects used books through the "Got Books?" program, which are sold to raise money for local causes.



# Construction and Demolition Waste Diversion

## Criteria

Institution diverts non-hazardous construction and demolition waste from the landfill and/or incinerator.

Soil and organic debris from excavating or clearing the site do not count for this credit.

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### Submission Note:

[Data from Jarrod only covers partial C and D recycling/recovery, the part that Facilities Waste Management handles; most construction waste is handled by contractor.]

"---" indicates that no data was submitted for this field

### Construction and demolition materials recycled, donated, or otherwise recovered:

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### Construction and demolition materials landfilled or incinerated :

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### A brief description of programs, policies, infrastructure investments, outreach efforts, and/or other factors that contributed to the diversion rate for construction and demolition waste:

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# Hazardous Waste Management

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### *Part 1*

Institution has strategies in place to safely dispose of all hazardous, special (e.g. coal ash), universal, and non-regulated chemical waste and seeks to minimize the presence of these materials on campus.

### *Part 2*

Institution has a program in place to recycle, reuse, and/or refurbish electronic waste generated by the institution and/or its students. Institution takes measures to ensure that the electronic waste is recycled responsibly, for example by using a recycler certified under the e-Stewards and/or R2 standards.

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*"---" indicates that no data was submitted for this field*

**Does the institution have strategies in place to safely dispose of all hazardous, special (e.g. coal ash), universal, and non-regulated chemical waste and seek to minimize the presence of these materials on campus?:**

Yes

**A brief description of steps taken to reduce hazardous, special (e.g. coal ash), universal, and non-regulated chemical waste:**

MIT's Hazardous Waste Minimization Team works closely with MIT's hazardous waste vendor and campus researchers to identify waste minimization and pollution prevention efforts for the Institute. The Waste Minimization Program's current initiatives include:

- Chemical inventory using ChemTracker
- Consolidation of hazardous waste
- Cylinder disposal
- Ethidium bromide substitution
- Glass recycling
- Improved waste stream determination (includes chemical sharps & unknowns)
- Mercury free bubblers
- Mercury thermometer exchange program
- Silver recovery
- Solvent recycling
- Virgin chemical redistribution

These initiatives allow the Hazardous Waste Team to divert materials for recycling, recovery, or reuse. MIT's Environment, Health & Safety Office also encourages researchers to work with the Hazardous Waste Team and the EHS Office to identify additional strategies to reduce waste and improve MIT's environmental stewardship.

SOURCE:

<https://ehs.mit.edu/site/content/hazardous-waste-minimization>

### **A brief description of how the institution safely disposes of hazardous, universal, and non-regulated chemical waste:**

Waste is collected across campus by MIT's hazardous waste vendor, who is specially trained to handle these substances. Once collected, hazardous wastes are delivered to a Main Accumulation Area on campus where it can be stored for 90 or 180 days. The waste is consolidated and bulked for shipment to a Treatment, Storage, and Disposal Facility where it will ultimately be destroyed. Some of MIT's waste is burned for energy reclamation, and some is incinerated. The Environmental Management Program (EMP) staff continues to research new disposal methods for MIT waste.

To prevent the spread of hazardous substances from e-waste, MIT Facilities will pick up and dispose of CPUs, monitors, printers, fax machines, and other electronics and their components for free. In addition, under MIT's TechnoCycle program, trash related to daily-use technologies (such as small electronics, cell phones, PDAs, pagers, floppy disks, CDs and CD cases, zip disks, audio and video tapes, external drives, cables and wires, keyboards, mice, and toner and inkjet cartridges) are collected in distributed mail centers throughout campus. Batteries are collected in all distributed mail centers and residence halls.

Sources:

<https://ehs.mit.edu/site/content/where-does-my-waste-go>

;

[http://web.mit.edu/facilities/environmental/docs/EWaste\\_TechnoCycle.pdf](http://web.mit.edu/facilities/environmental/docs/EWaste_TechnoCycle.pdf)

;

<http://web.mit.edu/facilities/environmental/reuse.html>

### **A brief description of any significant hazardous material release incidents during the previous three years, including volume, impact and response/remediation:**

Significant Hazardous Material Release Incidents

RTN Notification Date	Location	Chemical	Concentration	Units	Volume	Units	Impact	Response/Remediation
3-0029064	2/16/10	MIT PLASMA SCIENCE AND FUSION CENTER (BUILDING NW21), 190 ALBANY ST	CADMIUM	4	UG/L	"Release to soil and groundwater"	Soil excavation and disposal; afterwards, soil and groundwater were tested and found to pose no significant risk.	

CADMIUM 10 MG/KG

LEAD 10 UG/L

LEAD 370 MG/KG

3-0030788 5/1/12 MIT WEST LOT, 169 VASSAR ST BENZO[A]ANTHRACENE 8 MG/KG Release to soil or groundwater Soil excavation and disposal; afterwards, soil and groundwater were tested and found to pose no significant risk.

BENZO[A]PYRENE 7 MG/KG

BENZO[B]FLUORANTHENE 8 MG/KG

CADMIUM 3 MG/KG

DIBENZO[A,H]ANTHRACENE 1 MG/KG

LEAD 615 MG/KG

TPH 1,660 MG/KG

3-0030970 7/23/12 MIT VASSAR STREET STEAM LINE, 140 VASSAR ST BENZO[A]PYRENE 4 MG/KG Release to soil or groundwater during soil sampling prior to steam line repair and replacement Off-site disposal of soil; subsequent sampling found no significant risk at the disposal site.

LEAD 1,400 MG/KG

TPH 3,790 MG/KG

3-0032166 5/12/14 MIT BUILDING 42, 59 VASSAR STREET #6 FUEL OIL unknown Release to utility vault area Product or NAPL Recovery

3-0032203 5/28/14 MASSACHUSETTS INSTITUTE OF TECHNOLOGY, 329 VASSAR STREET HYDRAULIC FLUID 10 GAL Release to storm drain Deployment of Absorbent or Containment Materials; Product or NAPL Recovery

3-0032224 6/9/14 MIT CAMPUS, 60 VASSAR STREET ARSENIC 26 MG/KG Release to soil during excavations for installation and upgrading of utilities Contaminated soil managed, transported, and disposed.

LEAD 2,100 MG/KG

Data Sources:

<http://public.dep.state.ma.us/SearchableSites2/Search.aspx>

**A brief description of any inventory system employed by the institution to facilitate the reuse or redistribution of laboratory chemicals:**

Virgin chemicals that are no longer needed in one lab may be used by another lab on campus. MIT's Hazardous Waste Minimization Team and Environment, Health & Safety Office facilitates the re-direction of the chemicals for use in a process rather than sent directly to waste management. All labs must maintain chemical inventories, for which it is recommended that they use MIT's online ChemTracker inventory system (which has been paid for by the EHS Office and is free to labs).

Sources:

<https://ehs.mit.edu/site/content/hazardous-waste-minimization>

;

<http://ehs.mit.edu/site/content/chemical-inventory>

**Does the institution have or participate in a program to responsibly recycle, reuse, and/or refurbish all electronic waste generated by the institution?:**

Yes

**Does the institution have or participate in a program to responsibly recycle, reuse, and/or refurbish electronic waste generated by students?:**

Yes

**A brief description of the electronic waste recycling program(s):**

MIT Facilities handles the recycling of all battery, eWaste and Technocycle through either publicly available disposal bins or through pickup by Facilities staff. All departments can request pickup within 3-5 days.

**A brief description of steps taken to ensure that e-waste is recycled responsibly, workers' basic safety is protected, and environmental standards are met:**

MIT's ewaste is collected and stored using industry best practices in full compliance with state and federal rules. All electronics waste haulers are licensed and registered.

**The website URL where information about the institution's hazardous and electronic-waste recycling programs is available:**

<https://ehs.mit.edu/>

# Water

This subcategory seeks to recognize institutions that are conserving water, making efforts to protect water quality and treating water as a resource rather than a waste product. Pumping, delivering, and treating water is a major driver of energy consumption, so institutions can help reduce energy use and the greenhouse gas emissions associated with energy generation by conserving water. Likewise, conservation, water recycling and reuse, and effective rainwater management practices are important in maintaining and protecting finite groundwater supplies. Water conservation and effective rainwater and wastewater management also reduce the need for effluent discharge into local surface water supplies, which helps improve the health of local water ecosystems.

<b>Credit</b>
Water Use
Rainwater Management
Wastewater Management

# Water Use

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### Part 1

Institution has reduced its potable water use per weighted campus user compared to a baseline.

### Part 2

Institution has reduced its potable water use per gross square foot/metre of floor area compared to a baseline.

### Part 3

Institution has reduced its total water use (potable + non-potable) per acre/hectare of vegetated grounds compared to a baseline.

---

## Submission Note:

All water imported to the campus is potable water.

Vegetated area was calculated based on shapefiles from MIT FIS. Because these shapefiles are only available in their most current edition, the area of vegetated grounds is assumed to be the same in both the performance and baseline year. This assumption is reasonable, given that MIT's campus is in a fully developed area, and therefore there is no new greenfield construction that would significantly reduce the size of vegetated areas.

"---" indicates that no data was submitted for this field

## Level of water risk for the institution's main campus:

High

## Total water use::

	Performance Year	Baseline Year
<b>Total water use</b>	375,154,036 Gallons	383,904,499 Gallons

## Potable water use::

	Performance Year	Baseline Year
Potable water use	375,154,036 Gallons	383,904,499 Gallons

**Figures needed to determine "Weighted Campus Users"::**

	Performance Year	Baseline Year
Number of residential students	5,981	5,546
Number of residential employees	25	25
Number of in-patient hospital beds	0	0
Full-time equivalent enrollment	11,192	10,293
Full-time equivalent of employees	8,956	8,881
Full-time equivalent of distance education students	0	0

**Gross floor area of building space::**

	Performance Year	Baseline Year
Gross floor area	12,159,717 Square Feet	11,102,273 Square Feet

**Area of vegetated grounds::**

	Performance Year	Baseline Year
Vegetated grounds	60.80 Acres	60.80 Acres

**Start and end dates of the performance year and baseline year (or three-year periods):**

	Start Date	End Date
Performance Year	July 1, 2012	June 30, 2013
Baseline Year	July 1, 2007	June 30, 2010



**A brief description of when and why the water use baseline was adopted:**

The baseline is an average of the fiscal years 2008, 2009, and 2010. These years were chosen because they represent a period at least three years from the performance year, enabling assessment of change over time. In addition, taking the average of three years reduces the baseline's sensitivity to outliers and provides a more representative snapshot of past performance.

**Water recycled/reused on campus, performance year:**

750,000 Gallons

**Recycled/reused water withdrawn from off-campus sources, performance year:**

0 Gallons

**A brief description of any water recovery and reuse systems employed by the institution:**

An innovative storm water retention and management system at the Stata Center employs a bioswale to capture and polish area stormwater runoff, which is then harvested, filtered, and used as flushing water in the 430,000 GSF building.

**A brief description of any water metering and management systems employed by the institution:**

MIT deploys "smart metered" irrigation systems around campus to conserve water. In the central cooling plants, water is metered and monitored to identify potential water loss in the system.

**A brief description of any building retrofit practices employed by the institution, e.g. to install high efficiency plumbing fixtures and fittings:**

Nearly all bathroom fixtures have been replaced since the 1990s with higher efficiency, low flow fixtures as part of campus-wide water retrofit programs.

**A brief description of any policies or programs employed by the institution to replace appliances, equipment and systems with water-efficient alternatives:**

The Central Utility Plant regularly considers water efficiency measures in existing cooling and heating systems to decrease water waste. Once through cooling systems on campus are strongly discouraged and staff assist to find more efficient options.

**A brief description of any water-efficient landscape design practices employed by the institution (e.g. xeriscaping):**

MIT uses xeriscaping whenever possible. Smart meter irrigation systems are used to water only when necessary.

**A brief description of any weather-informed irrigation technologies employed by the institution:**

Smart meter irrigation systems are used to water only when necessary.

**A brief description of other water conservation and efficiency strategies employed by the institution:**

Campus-wide water fixture retrofits have been done. Ultra low flow fixtures are the installation standard for all replacements. New construction employees LEED gold design standards, which includes system-wide water saving strategies.

**The website URL where information about the institution's water conservation and efficiency initiatives is available:**

[https://sustainability.mit.edu/sustainability-today/natural-systems?qt-natural\\_systems=2#qt-natural\\_systems](https://sustainability.mit.edu/sustainability-today/natural-systems?qt-natural_systems=2#qt-natural_systems)

# Rainwater Management

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### *Part 1*

Institution uses Low Impact Development (LID) practices as a matter of policy or standard practice to reduce rainwater/stormwater runoff volume and improve outgoing water quality for new construction, major renovation, and other projects that increase paved surface area on campus or otherwise significantly change the campus grounds.

The policy, plan, and/or strategies cover the entire campus. While the specific strategies or practices adopted may vary depending on project type and location, this credit is reserved for institutions that mitigate rainwater runoff impacts consistently during new construction. Implementing a strategy or strategies for only one new development project is not sufficient for Part 1 of this credit.

### *Part 2*

Institution has adopted a rainwater/stormwater management policy, plan, and/or strategies that mitigate the rainwater runoff impacts of ongoing campus operations and treat rainwater as a resource rather than as a waste product.

The policy, plan, and/or strategies address both the quantity and quality (or contamination level) of rainwater runoff through the use of green infrastructure. Though specific practices adopted may vary across the campus, the policy, plan, and/or strategies cover the entire institution. Implementing strategies for only one building or area of campus is not sufficient for Part 2 of this credit.

Policies adopted by entities of which the institution is part (e.g. state government or the university system) may count for both parts of this credit as long as the policies apply to and are followed by the institution.

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## Submission Note:

[http://web.mit.edu/workinggreen/docs/monthly\\_bale/monthlybale\\_060705.pdf](http://web.mit.edu/workinggreen/docs/monthly_bale/monthlybale_060705.pdf)

"---" indicates that no data was submitted for this field

**Does the institution use Low Impact Development (LID) practices as a matter of policy or standard practice to reduce rainwater/stormwater runoff volume and improve outgoing water quality for new construction, major renovation, and other projects?:**

Yes

**A brief description of the institution's Low Impact Development (LID) practices:**

All new capital projects on MIT's campus must achieve at least a LEED Silver Certification (

<http://web.mit.edu/facilities/environmental/buildings.html>

). Points are earned towards certification via a variety of sustainable design features. These often include low impact development strategies to reduce rainwater/stormwater runoff. For instance, the Stata Center features an innovative storm water retention and management system that employs biofiltration, as well as a roof that incorporates landscaping for storm water retention (

<http://web.mit.edu/facilities/construction/completed/stata.html>

). In 2010, MIT won a Cambridge GoGreen award for the Stata Center's storm water management (

<https://sustainability.mit.edu/sustainability-today/natural-systems>

). Both the Brain and Cognitive Science Building and the Stata Center have rainwater harvesting and reuse systems and use reclaimed water for irrigation and toilet flushing (

<https://sustainability.mit.edu/sustainability-today/natural-systems>

). Ashdown House, a graduate student residence, has a storm water management system that includes a filtration system and an irrigation system connected to central weather station for minimization of watering (

<http://web.mit.edu/facilities/construction/completed/ashdown.html>

). Similarly, the newly expanded Sloan School of Business has a storm water filtration system that will improve the quality of water that reaches the Charles River (

<http://web.mit.edu/facilities/construction/completed/sloan.html>

).

MIT also plays a key role in the ongoing revitalization of the Charles River, a response to the EPA's Clean Charles River Initiative. Along with the Boston area community, MIT participates in stewardship activities such as numerous river cleanup events, water sampling for the Charles River Watershed Association, and storm water management on campus (

<https://sustainability.mit.edu/sustainability-today/natural-systems>

).

**Has the institution adopted a rainwater/stormwater management policy, plan, or strategies that mitigate the rainwater runoff impacts of ongoing campus operations through the use of green infrastructure? :**

Yes

**A brief description of the institution's rainwater/stormwater management policy, plan, and/or strategies for ongoing campus operations:**

MIT works extensively to reduce its water usage through a variety of strategies, including the deployment of technologies such as: installation of low-flow shower heads and toilets and educational signs efficient washing machines; and installation of a centralized irrigation system at the Stata Center, which uses weather data to control water flow and can identify leaks and cut off water flow in order to minimize watering.

These initiatives have saved MIT 70,000,000 gallons of water per year and have helped MIT's water usage fall 60 percent between 1997 and 2005.

**A brief description of any rainwater harvesting employed by the institution:**

One of the design features of the Stata Center "harvests" rain water for reuse, thereby reducing MIT's city water use by nearly three quarters of a million gallons a year. This same system also significantly reduces pollution that could impact the Charles River. The Stata Center's "biofiltration" stormwater management system accomplishes both through award-winning design. This stormwater management system manifests itself to the passer-by as a natural oasis wedged in-between Buildings 56 and 57 – identified by the curious stonewall sculptured banks, natural vegetation, and scenic footbridge. This "bioswale" is just one component in the Stata Center's overall landscape design that uses a "biomimicry" concept that reintroduces natural systems such as varied topography and vegetation into the built environment.

The Stata Center stormwater collection system provides for more efficient use of water resources because it serves as a rainwater "harvester" - collecting rainwater, storing it, and reusing it within the Stata Center building for flushing water for toilets and urinals and for landscape irrigation. Stormwater collected and "polished" in the bioswale is pumped into the Stata Center where it is treated with multimedia filtration and an ultraviolet sterilization system, stored in tanks, and pumped to lavatories as flushing water. It is estimated that the Stata Center building consumes approximately 5,000 gallons per day for flushing water. This maximized water efficiency reduces potable water use, minimizes burdens on the municipal water systems, and reduces water costs for MIT. To boot, a solar powered pump is used to irrigate the bioswale vegetation with recycled water, further reducing potable water use.

**Rainwater harvested directly and stored/used by the institution, performance year:**

750,000 *Gallons*

**A brief description of any rainwater filtering systems employed by the institution to treat water prior to release:**

MIT mitigates stormwater runoff from the Stata Center site that can impact the Charles River with an innovative, state-of-the art stormwater control and treatment system. Stormwater runoff from the Stata Center and some adjacent roofs (part of Building 26, all of Buildings 56 and 57) is drained to and stored in the "biofiltration" swale. The swale is a depression in the landscape designed to collect water and is constructed with soils and vegetated with plant species to provide natural filtration. The plant species employed are capable of filtering oil and grease as well as suspended solids from stormwater. Runoff entering this swale filters through the vegetation and is detained below grade in a galley chamber. Instead of flowing directly into the city's sewer system during storms and possibly directly into the Charles River untreated, this potentially contaminated stormwater runoff is diverted into Stata's biofiltration system where it is "polished", and then gradually released to the sewer system at a rate that can be absorbed by municipal sewer treatment plants. During heavy rains storms, because of antiquated city systems, much of the stormwater would overwhelm the city's ability to treat it and it would be diverted directly in to the Charles River. During a heavy rain storm, the MIT stormwater system diverts and temporarily stores up to 50% of the untreated runoff water headed for the sewer system or river. The system also removes up to 80% of the solids in the runoff. This filtration has a direct and immediate effect on the water quality of the Charles River

**A brief description of any living or vegetated roofs on campus:**

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**A brief description of any porous (i.e. permeable) paving employed by the institution:**

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**A brief description of any downspout disconnection employed by the institution:**

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**A brief description of any rain gardens on campus:**

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**A brief description of any stormwater retention and/or detention ponds employed by the institution:**

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**A brief description of any bioswales on campus (vegetated, compost or stone):**

Stormwater runoff from the Stata Center and some adjacent roofs (part of Building 26, all of Buildings 56 and 57) is drained to and stored in the “biofiltration” swale. The swale is a depression in the landscape designed to collect water and is constructed with soils and vegetated with plant species to provide natural filtration. The plant species employed are capable of filtering oil and grease as well as suspended solids from stormwater. Runoff entering this swale filters through the vegetation and is detained below grade in a galley chamber. Instead of flowing directly into the city’s sewer system during storms and possibly directly into the Charles River untreated, this potentially contaminated stormwater runoff is diverted into Stata’s biofiltration system where it is “polished”, and then gradually released to the sewer system at a rate that can be absorbed by municipal sewer treatment plants.

**A brief description of any other rainwater management technologies or strategies employed by the institution:**

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**The website URL where information about the institution’s rainwater management initiatives, plan or policy is available:**

<https://sustainability.mit.edu/sustainability-today/natural-systems>

# Wastewater Management

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution's wastewater is handled naturally on campus or in the local community. Natural wastewater systems include, but are not limited to, constructed treatment wetlands and Living Machines. To count, wastewater must be treated to secondary or tertiary standards prior to release to water bodies.

This credit recognizes natural handling of the water discharged by the institution. On-site recycling/reuse of greywater and/or blackwater is recognized in *OP 26: Water Use*.

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### Submission Note:

263,023,293 gallons (351,611 CCF) is the total sewer use for the main campus in FY2013.

"---" indicates that no data was submitted for this field

### Total wastewater discharged:

263,023,293 Gallons

### Wastewater naturally handled:

0 Gallons

### A brief description of the natural wastewater systems used to handle the institution's wastewater:

While many of MIT's LEED certified buildings include natural means of handling wastewater, these projects do not constitute a campus-wide wastewater system. However, MIT is working on producing a stormwater plan in the near future.

### The website URL where information about the institution's wastewater management practices is available:

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# Planning & Administration

## Coordination, Planning & Governance

This subcategory seeks to recognize colleges and universities that are institutionalizing sustainability by dedicating resources to sustainability coordination, developing plans to move toward sustainability, and engaging students, staff and faculty in governance. Staff and other resources help an institution organize, implement, and publicize sustainability initiatives. These resources provide the infrastructure that fosters sustainability within an institution. Sustainability planning affords an institution the opportunity to clarify its vision of a sustainable future, establish priorities and help guide budgeting and decision making. Strategic planning and internal stakeholder engagement in governance are important steps in making sustainability a campus priority and may help advocates implement changes to achieve sustainability goals.

<b>Credit</b>
Sustainability Coordination
Sustainability Planning
Governance



# Sustainability Coordination

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution has at least one sustainability committee, office, and/or officer tasked by the administration or board of trustees to advise on and implement policies and programs related to sustainability on campus. The committee, office, and/or officer focus on sustainability broadly (i.e. not just one sustainability issue, such as climate change) and cover the entire institution.

An institution that has multiple committees, offices and/or staff with responsibility for subsets of the institution (e.g. schools or departments) may earn points for this credit if it has a mechanism for broad sustainability coordination for the entire campus (e.g. a coordinating committee or the equivalent). A committee, office, and/or officer that focuses on just one department or school within the institution does not count for this credit in the absence of institution-wide coordination.

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*"---" indicates that no data was submitted for this field*

### **Does the institution have at least one sustainability committee, office, and/or officer that focuses on sustainability broadly and covers the entire institution?:**

Yes

### **A brief description of the activities and substantive accomplishments of the committee(s), office(s), and/or officer(s) during the previous three years:**

Through June 2014, the Office embarked on a range of foundational projects, ranging from planning and hosting an international sustainability conference to launching an internal, cross-disciplinary committee to shape MIT's engagement with the City of Cambridge's emerging Net Zero Energy Taskforce.

### **Does the institution have at least one sustainability committee?:**

No

### **The charter or mission statement of the committee(s) or a brief description of each committee's purview and activities:**

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### **Members of each committee, including affiliations and role (e.g. staff, student, or faculty):**

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**The website URL where information about the sustainability committee(s) is available:**

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**Does the institution have at least one sustainability office that includes more than 1 full-time equivalent (FTE) employee?:**

Yes

**A brief description of each sustainability office:**

In August 2013, MIT's Office of Sustainability was established as a new office reporting to the Executive Vice President and Treasurer, and led by MIT's first Director of Sustainability, Julie Newman. The Office was charged with bridging the Institute's administrative, research, and educational units in order to:

- Ensure that MIT's campus growth, development, and renewal reflect the highest commitment to sustainability while demonstrating leading practices and advancing the pursuit of innovation
- Embed the principles of sustainability into all operational functions of the Institute and to promote overarching systems that are adaptive to continuous improvement
- Seek shared solutions to common sustainability challenges with the Cities of Cambridge, Boston and partners beyond, and
- Enable the campus as a living and learning laboratory for sustainability that brings new knowledge and action to bear.

To create a strong foundation for sustainability at MIT, the Office has been organized around a framework defined by three major topic areas: "Campus and Natural Systems," "Living Laboratory", and "Community Collaboration." Within those topic areas, the Office set out to re-imagine how the Institute:

- Designs, builds and operates our buildings
- Produces, uses and distributes energy for campus operations
- Procures food
- Designs and offers mobility solutions for people to, from, and around campus
- Acquires, disposes, and reuses materials while reducing consumption
- Maintains and restores land, water, and air resources
- Ensures campus and natural systems that promote human health and well-being

**Full-time equivalent (FTE) of people employed in the sustainability office(s):**

5.50

**The website URL where information about the sustainability office(s) is available:**

<http://sustainability.mit.edu/>

**Does the institution have at least one sustainability officer?:**

Yes

**Name and title of each sustainability officer:**

Julie Newman, PhD: Director of the Office of Sustainability; Steven Lanou, MCP: Deputy Director of the Office of Sustainability

**A brief description of each sustainability officer position:**

The Director manages the Office of Sustainability and directly reports to the Executive Vice President and Treasurer of the Institute. Her role is to drive the sustainability vision of the university and to work with the surrounding community to build a more sustainable university and city. She is assisted by the Deputy Director as well as a team of project managers who each work on specific topic areas including “Campus and Natural Systems,” “Living Laboratory”, and “Community Collaboration.”

**The website URL where information about the sustainability officer(s) is available:**

<http://sustainability.mit.edu/about/staff>

## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution has current and formal plans to advance sustainability. The plan(s) cover one or more of the following areas:

- Curriculum
- Research (or other scholarship appropriate for the institution)
- Campus Engagement
- Public Engagement
- Air & Climate
- Buildings
- Dining Services/Food
- Energy
- Grounds
- Purchasing
- Transportation
- Waste
- Water
- Diversity & Affordability
- Health, Wellbeing & Work
- Investment
- Other

The plan(s) may include measurable objectives with corresponding strategies and timeframes to achieve the objectives.

The criteria may be met by any combination of formally adopted plans, for example:

- Strategic plan or equivalent guiding document
- Campus master plan or physical campus plan
- Sustainability plan
- Climate action plan
- Human resources strategic plan
- Diversity plan

For institutions that are a part of a larger system, plans developed at the system level are eligible for this credit.

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### Submission Note:

"---" indicates that no data was submitted for this field

**Does the institution have current and formal plans to advance sustainability in the following areas? Do the plans include measurable objectives?:**

	<b>Current and Formal Plans (Yes or No)</b>	<b>Measurable Objectives (Yes or No)</b>
<b>Curriculum</b>	Yes	Yes
<b>Research (or other scholarship)</b>	Yes	Yes
<b>Campus Engagement</b>	Yes	Yes
<b>Public Engagement</b>	Yes	Yes
<b>Air and Climate</b>	No	No
<b>Buildings</b>	Yes	Yes
<b>Dining Services/Food</b>	---	---
<b>Energy</b>	Yes	Yes
<b>Grounds</b>	---	---
<b>Purchasing</b>	---	---
<b>Transportation</b>	Yes	Yes
<b>Waste</b>	---	---
<b>Water</b>	---	---
<b>Diversity and Affordability</b>	Yes	Yes
<b>Health, Wellbeing and Work</b>	Yes	Yes

<b>Investment</b>	---	---
<b>Other</b>	---	---

**A brief description of the plan(s) to advance sustainability in Curriculum:**

<http://mitei.mit.edu/education>

**The measurable objectives, strategies and timeframes included in the Curriculum plan(s):**

<http://mitei.mit.edu/education>

**Accountable parties, offices or departments for the Curriculum plan(s):**

<http://mitei.mit.edu/education>

**A brief description of the plan(s) to advance sustainability in Research (or other scholarship):**

<http://mitei.mit.edu/research>

**The measurable objectives, strategies and timeframes included in the Research plan(s):**

<http://mitei.mit.edu/research>

**Accountable parties, offices or departments for the Research plan(s):**

<http://mitei.mit.edu/research>

**A brief description of the plan(s) to advance Campus Engagement around sustainability:**

<http://mitei.mit.edu/campus-energy>

**The measurable objectives, strategies and timeframes included in the Campus Engagement plan:**

<http://mitei.mit.edu/campus-energy>

**Accountable parties, offices or departments for the Campus Engagement plan(s):**

<http://mitei.mit.edu/campus-energy>

**A brief description of the plan(s) to advance Public Engagement around sustainability:**

<http://mitei.mit.edu/campus-energy>

**The measurable objectives, strategies and timeframes included in the Public Engagement plan(s):**

<http://mitei.mit.edu/campus-energy>

**Accountable parties, offices or departments for the Public Engagement plan(s):**

<http://mitei.mit.edu/campus-energy>

**A brief description of the plan(s) to advance sustainability in Air and Climate:**

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**The measurable objectives, strategies and timeframes included in the Air and Climate plan(s):**

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**Accountable parties, offices or departments for the Air and Climate plan(s):**

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**A brief description of the plan(s) to advance sustainability in Buildings:**

<http://web.mit.edu/mit2030/>

**The measurable objectives, strategies and timeframes included in the Buildings plan(s):**

<http://web.mit.edu/mit2030/>

**Accountable parties, offices or departments for the Buildings plan(s):**



<http://web.mit.edu/mit2030/>

**A brief description of the plan(s) to advance sustainability in Dining Services/Food:**

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**The measurable objectives, strategies and timeframes included in the Dining Services/Food plan(s):**

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**Accountable parties, offices or departments for the Dining Services/Food plan(s):**

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**A brief description of the plan(s) to advance sustainability in Energy:**

<http://web.mit.edu/facilities/environmental/cogen.html>

**The measurable objectives, strategies and timeframes included in the Energy plan(s):**

<http://web.mit.edu/facilities/environmental/cogen.html>

**Accountable parties, offices or departments for the Energy plan(s):**

<http://web.mit.edu/facilities/environmental/cogen.html>

**A brief description of the plan(s) to advance sustainability in Grounds:**

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**The measurable objectives, strategies and timeframes included in the Grounds plan(s):**

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**Accountable parties, offices or departments for the Grounds plan(s):**

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**A brief description of the plan(s) to advance sustainability in Purchasing:**

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**The measurable objectives, strategies and timeframes included in the Purchasing plan(s):**

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**Accountable parties, offices or departments for the Purchasing plan(s):**

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**A brief description of the plan(s) to advance sustainability in Transportation:**

<http://web.mit.edu/facilities/transportation/index.html>

**The measurable objectives, strategies and timeframes included in the Transportation plan(s):**

<http://web.mit.edu/facilities/transportation/index.html>

**Accountable parties, offices or departments for the Transportation plan(s):**

<http://web.mit.edu/facilities/transportation/index.html>

**A brief description of the plan(s) to advance sustainability in Waste:**

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**The measurable objectives, strategies and timeframes included in the Waste plan(s):**

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**Accountable parties, offices or departments for the Waste plan(s):**

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**A brief description of the plan(s) to advance sustainability in Water:**

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**The measurable objectives, strategies and timeframes included in the Water plan(s):**

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**Accountable parties, offices or departments for the Water plan(s):**

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**A brief description of the plan(s) to advance Diversity and Affordability:**

<http://diversity.mit.edu>

**The measurable objectives, strategies and timeframes included in the Diversity and Affordability plan(s):**

<http://diversity.mit.edu>

**Accountable parties, offices or departments for the Diversity and Affordability plan(s):**

<http://diversity.mit.edu>

**A brief description of the plan(s) to advance sustainability in Health, Wellbeing and Work:**

<https://medical.mit.edu/services/community-wellness>

**The measurable objectives, strategies and timeframes included in the Health, Wellbeing and Work plan(s):**

<https://medical.mit.edu/services/community-wellness>

**Accountable parties, offices or departments for the Health, Wellbeing and Work plan(s):**

<https://medical.mit.edu/services/community-wellness>

**A brief description of the plan(s) to advance sustainability in Investment:**

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**The measurable objectives, strategies and timeframes included in the Investment plan(s):**

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**Accountable parties, offices or departments for the Investment plan(s):**

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**A brief description of the plan(s) to advance sustainability in other areas:**

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**The measurable objectives, strategies and timeframes included in the other plan(s):**

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**Accountable parties, offices or departments for the other plan(s):**

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**The institution's definition of sustainability:**

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**Does the institution's strategic plan or equivalent guiding document include sustainability at a high level?:**

Yes

**A brief description of how the institution's strategic plan or equivalent guiding document addresses sustainability:**

<http://web.mit.edu/mit2030/themes/>

Envisioning the future

MIT academic and administrative leaders are working in collaboration to envision how our campus and surroundings could evolve to meet future academic and research needs and continue to foster innovation. The MIT 2030 framework provides guidelines that help focus and clarify our efforts.

Knowing that the future holds countless unknown variables, we designed the framework to be flexible and responsive, providing structure without limiting the possibilities in what has always been—and most likely always will be—a complex and challenging process. Our goal is to ensure that the inevitable evolution of MIT is a guided but communal endeavor: iterative, inclusive, and intelligent.

Core themes include:

Innovation and collaboration

Renovation and renewal

Sustainability

Enhancement of life and learning

**The website URL where information about the institution's sustainability planning is available:**

<http://sustainability.mit.edu/next-gen-sustainability>  
STARS Reporting Tool | AASHE



## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### *Part 1*

Institution's students participate in governance in one or more of the following ways:

A. All enrolled students, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)

B. There is at least one student representative on the institution's governing body. To count, student representatives must be elected by their peers or appointed by a representative student body or organization.

And/or

C. Students have a formal role in decision-making in regard to one or more of the following:

- Establishing organizational mission, vision, and/or goals
- Establishing new policies, programs, or initiatives
- Strategic and long-term planning
- Existing or prospective physical resources
- Budgeting, staffing and financial planning
- Communications processes and transparency practices
- Prioritization of programs and projects

### *Part 2*

Institution's staff participate in governance in one or more of the following ways:

A. All staff members, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)

B. There is at least one non-supervisory staff representative on the institution's governing body. To count, staff representatives must be elected by their peers or appointed by a representative staff body or organization.

And/or

C. Non-supervisory staff have a formal role in decision-making in regard to one or more of the areas outlined in Part 1.

### *Part 3*

Institution's faculty participate in governance in one or more of the following ways:

A. All faculty members, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)

B. There is at least one teaching or research faculty representative on the institution's governing body. To count, faculty representatives must be elected by their peers or appointed by a representative faculty body or organization.

And/or

C. Faculty have a formal role in decision-making in regard to one or more of the areas outlined in Part 1.

Participatory or shared governance bodies, structures and/or mechanisms may be managed by the institution (e.g. committees, councils, senates), by stakeholder groups (e.g. student, faculty and staff committees/organizations), or jointly (e.g. union/management structures).

Structures or mechanisms adopted by entities of which the institution is part (e.g. government or university system) may count for this credit as long as they apply and are adhered to by the institution.

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"---" indicates that no data was submitted for this field

**Do all enrolled students, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)?:**

Yes

**A brief description of the mechanisms through which students have an avenue to participate in one or more governance bodies:**

Undergraduate Association  
Graduate Student Council

**Is there at least one student representative on the institution's governing body who was elected by peers or appointed by a representative student body or organization?:**

Yes

**A brief description of student representation on the governing body, including how the representatives are selected:**

Corporation Joint Advisory Committee on Institute-Wide Affairs (CJAC)

**Do students have a formal role in decision-making in regard to the following?:**

	Yes or No
Establishing organizational mission, vision, and/or goals	Yes



<b>Establishing new policies, programs, or initiatives</b>	Yes
<b>Strategic and long-term planning</b>	Yes
<b>Existing or prospective physical resources</b>	Yes
<b>Budgeting, staffing and financial planning</b>	---
<b>Communications processes and transparency practices</b>	---
<b>Prioritization of programs and projects</b>	Yes

**A brief description of the formal student role in regard to each area indicated, including examples from the previous three years:**

UA and GSC are regularly consulted on matters of institute affairs and are represented on committees and task forces. There are student appointments to select board of trustee committees, e.g. Corporation Joint Advisory Committee on Institute-Wide Affairs (CJAC).

**Do all staff, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)?:**

Yes

**A brief description of the mechanisms through which all staff have an avenue to participate in one or more governance bodies:**

All MIT staff can be candidates for many governing institute committees and task forces.

**Is there at least one non-supervisory staff representative on the institution's governing body who was elected by peers or appointed by a representative staff body or organization?:**

No

**A brief description of non-supervisory staff representation on the governing body, including how the representatives are selected:**

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**Do non-supervisory staff have a formal role in decision-making in regard to the following? :**

	Yes or No
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<b>Establishing organizational mission, vision, and/or goals</b>	---
<b>Establishing new policies, programs, or initiatives</b>	---
<b>Strategic and long-term planning</b>	---
<b>Existing or prospective physical resources</b>	---
<b>Budgeting, staffing and financial planning</b>	---
<b>Communications processes and transparency practices</b>	---
<b>Prioritization of programs and projects</b>	---

**A brief description of the formal staff role in regard to each area indicated, including examples from the previous three years:**

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**Do all faculty, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)?:**

Yes

**A brief description of the mechanisms through which all faculty (including adjunct faculty) have an avenue to participate in one or more governance bodies:**

Chair of Faculty at Academic Council

**Is there at least one teaching or research faculty representative on the institution's governing body who was elected by peers or appointed by a representative faculty body or organization?:**

Yes

**A brief description of faculty representation on the governing body, including how the representatives are selected:**

Corporation Joint Advisory Committee on Institute-Wide Affairs (CJAC)

**Do faculty have a formal role in decision-making in regard to the following?:**

	<b>Yes or No</b>
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<b>Establishing organizational mission, vision, and/or goals</b>	Yes
<b>Establishing new policies, programs, or initiatives</b>	Yes
<b>Strategic and long-term planning</b>	Yes
<b>Existing or prospective physical resources</b>	Yes
<b>Budgeting, staffing and financial planning</b>	Yes
<b>Communications processes and transparency practices</b>	Yes
<b>Prioritization of programs and projects</b>	Yes

**A brief description of the formal faculty role in regard to each area indicated, including examples from the previous three years:**

The Academic Council, consisting of the Institute's senior leadership plus the elected Chair of the Faculty, meets weekly during the academic year to confer on matters of Institute policy. The Academic Council is chaired by the President.

**The website URL where information about the institution's governance structure is available:**

<https://orgchart.mit.edu/academic-council>

# Diversity & Affordability

This subcategory seeks to recognize institutions that are working to advance diversity and affordability on campus. In order to build a sustainable society, diverse groups will need to be able to come together and work collaboratively to address sustainability challenges. Members of racial and ethnic minority groups and immigrant, indigenous and low-income communities tend to suffer disproportionate exposure to environmental problems. This environmental injustice happens as a result of unequal and segregated or isolated communities. To achieve environmental and social justice, society must work to address discrimination and promote equality. The historical legacy and persistence of discrimination based on racial, gender, religious, and other differences makes a proactive approach to promoting a culture of inclusiveness an important component of creating an equitable society. Higher education opens doors to opportunities that can help create a more equitable world, and those doors must be open through affordable programs accessible to all regardless of race, gender, religion, socio-economic status and other differences. In addition, a diverse student body, faculty, and staff provide rich resources for learning and collaboration.

<b>Credit</b>
Diversity and Equity Coordination
Assessing Diversity and Equity
Support for Underrepresented Groups
Support for Future Faculty Diversity
Affordability and Access

# Diversity and Equity Coordination

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### Part 1

Institution has a diversity and equity committee, office and/or officer tasked by the administration or governing body to advise on and implement policies, programs, and trainings related to diversity and equity on campus. The committee, office and/or officer focuses on student and/or employee diversity and equity.

### Part 2

Institution makes cultural competence trainings and activities available to all members of one or more of the following groups:

- Students
  - Staff
  - Faculty
  - Administrators
- 

"---" indicates that no data was submitted for this field

**Does the institution have a diversity and equity committee, office, and/or officer tasked by the administration or governing body to advise on and implement policies, programs, and trainings related to diversity and equity on campus?:**

Yes

**Does the committee, office and/or officer focus on one or both of the following?:**

	Yes or No
Student diversity and equity	Yes
Employee diversity and equity	Yes

**A brief description of the diversity and equity committee, office and/or officer, including purview and activities:**

The Institute Community and Equity Office/Officer (ICEO) serves as a thought leader on the subjects of community, equity, inclusion, and diversity; a focal point for organizing MIT’s related activities and conversations; and a hands-on practitioner who disseminates best practices and inspires the awareness and enthusiasm to help them flourish.

Drawing on the strength and energy of our extraordinary diversity of experiences and backgrounds, the ICEO shall lead MIT to make practical progress on a daily basis toward cultivating a caring community focused on MIT’s shared values of excellence, meritocracy, openness, integrity, and mutual respect. This work shall be carried out in ways that enhance the life and work of MIT faculty, students, postdocs, and staff, with the aim of making everyone here feel that MIT is home. The ICEO reports to the Provost.

In addition, the Committee on Race and Diversity is charged with fostering better relations among diverse racial and cultural groups at MIT and helping the community realize the benefits of its cultural and racial diversity. In carrying out this charge, the committee was asked to assume these responsibilities:

- Stimulate and coordinate a systematic action agenda for improving race relations within the MIT community, including programs, events, and activities that foster appreciation of the many races and cultures at MIT (inside and outside the classroom), and/or that are designed to help eliminate bigotry or prejudice on campus.
- Develop, maintain, and promote a monthly calendar of campus activities and events directly involving or relating to issues of race relations, and serve as a clearinghouse of information on such activities.
- Develop and distribute a resource guide containing information on various services, programs, individuals and organizations that can be of help in promoting positive race relations for the MIT campus.
- Administer a modest grants program to support projects and activities that promote multicultural understanding and positive race relations within the MIT community. The committee should publicize the availability of the grants each fall, receive and review proposals, and make awards. Primary emphasis will be on activities proposed by students or student groups. However, any member or group within the MIT community (students, faculty, and staff) is eligible to receive such grants, although these funds should not be seen as a substitute for expenditures that departments would ordinarily be making.

Members of the committee are appointed by the president from among the faculty, students, staff of MIT and include people with different racial and cultural backgrounds. The committee does not attempt to reflect the full diversity of the MIT population in its membership, but rather works with the various racial and ethnic groups to develop an overview of issues and concerns, as well as opportunities for promoting better relations on campus.

**The full-time equivalent of people employed in the diversity and equity office:**

3

**The website URL where information about the diversity and equity committee, office and/or officer is available:**

<http://diversity.mit.edu/>

**Does the institution make cultural competence trainings and activities available to all members of the following groups?:**

	Yes or No
Students	Yes
Staff	Yes

<b>Faculty</b>	Yes
<b>Administrators</b>	Yes

**A brief description of the cultural competence trainings and activities:**

**Students:**

Through freshman and graduate student orientation. In addition, the Office of Minority Education and Women and Gender Studies in collaboration with the ICEO and other departments offer workshops and seminars on topics like the Impostor Syndrome, Challenging Technical Privilege – How Race and Gender Matter, and many other topics for students and the wider MIT audience, including grad students, postdocs, faculty, staff, administrators, etc. Additionally, many student organizations offer events and programs throughout the academic year to expose the MIT community to various cultures and experiences, e.g., Festival de las Americas, Black Week, etc.

A lot of the work that happens here around graduate student support takes place with Dean Staton, Dean McKnight and occasionally Dean Ortiz, providing one-on-one support of all students who need counseling and/or support with connecting to appropriate resources for academic support and mental wellbeing.

Outside of these efforts, we provide sponsorship to student organizations like the Black Graduate Student Association that supports the social development of graduate students. There is also a student group called Association of Courageous Minority Engineers (ACME) that receives support from the ODGE. ACME provides academic support and accountability partners for graduate students of color. The ODGE also hosts two receptions a year to bring minority students together on campus to begin to build networks and to celebrate Hispanic Heritage month and Black History month. We also support graduate students attendance at national meetings where they recruit prospective URM graduate students to MIT. Lastly, the ODGE provides a Power Lunch series that brings students together to discuss various opportunities for success in graduate school and beyond with different faculty and speakers.

**Staff, Faculty, Administrators:**

The MIT Learning Center provides trainings and employee training includes cultural competence material through the Prevention of Sexual Harassment Training. Some departments, like the MIT Libraries, have a committee for the Promotion of Diversity and Inclusion that are comprised of staff, faculty, and administrators and have internal programming, events, and discussions series that focus on diversity, inclusion, equity and community. All are invited to attend the annual Institute Diversity Summit.

**The website URL where information about the cultural competence trainings is available:**

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# Assessing Diversity and Equity

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution assesses diversity and equity on campus and uses the results to guide policy, programs, and initiatives. The assessment(s) address one or more of the following areas:

1. **Campus climate**, e.g. through a survey or series of surveys to gather information about the attitudes, perceptions and experiences of campus stakeholders and underrepresented groups
  2. **Student diversity and educational equity**, e.g. through analysis of institutional data on diversity and equity by program and level, comparisons between graduation and retention rates for diverse groups, and comparisons of student diversity to the diversity of the communities being served by the institution
  3. **Employee diversity and employment equity**, e.g. through analysis of institutional data on diversity and equity by job level and classification, and comparisons between broad workforce diversity, faculty diversity, management diversity and the diversity of the communities being served by the institution
  4. **Governance and public engagement**, e.g. by assessing access to and participation in governance on the part of underrepresented groups and women, the centrality of diversity and equity in planning and mission statements, and diversity and equity in public engagement efforts
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"---" indicates that no data was submitted for this field

## Has the institution assessed diversity and equity in terms of campus climate?:

Yes

## A brief description of the campus climate assessment(s) :

The Institutional Research section of the MIT Office of the Provost administered the Student Quality of Life survey to all enrolled graduate and undergraduate students in March 2013. During this assessment, students were asked to rate the campus climate on a scale from 1 (intolerant of diversity) to 6 (embracing of diversity). In this survey, 93% of responses were between 4-6 indicating a campus climate that is significantly more embracing of diversity. MIT is seeking to continue its strong support for diversity by establishing the Institute Community and Equity Office (ICEO) which is specifically tasked with cultivating a caring community focused on MIT's shared values of excellence, meritocracy, openness, integrity, and mutual respect.

<http://web.mit.edu/ir/surveys/sql.html>



**Has the institution assessed student diversity and educational equity?:**

Yes

**A brief description of the student diversity and educational equity assessment(s):**

Institutional Research collects information annually from across the MIT to assess the equity of students based on self-reported ethnicity/race. This information is reported to the Integrated Postsecondary Education Data System as well as published through the Common Data Set for MIT (

<http://web.mit.edu/ir/cds/index.html>

). This information includes graduate retention rates by ethnicity/race.

**Has the institution assessed employee diversity and employment equity?:**

Yes

**A brief description of the employee diversity and employment equity assessment(s):**

Diversity and equity is assessed through completion of our Affirmative Action Plan; regular review by job classification/family and periodic surveys.

In addition, the Institute Community and Equity Office reports to the Provost annually on the status of faculty diversity.

**Has the institution assessed diversity and equity in terms of governance and public engagement?:**

No

**A brief description of the governance and public engagement assessment(s):**

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**The website URL where information about the assessment(s) is available:**

<http://web.mit.edu/ir/surveys/index.html>

# Support for Underrepresented Groups

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### Part 1

Institution has mentoring, counseling, peer support, academic support, or other programs in place to support underrepresented groups on campus.

This credit excludes programs to help build a diverse faculty throughout higher education, which are covered in *PA 7: Support for Future Faculty Diversity*.

### Part 2

Institution has a discrimination response policy, program and/or team (or the equivalent) to respond to and support those who have experienced or witnessed a bias incident, act of discrimination or hate crime.

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## Submission Note:

Transgender and transitioning student resources:

<http://web.mit.edu/trans/index.html>

Transgender and transitioning student housing is accommodated on a case-by-case basis by the MIT Housing Office:

<http://web.mit.edu/trans/housing.html>

"---" indicates that no data was submitted for this field

## Does the institution have mentoring, counseling, peer support, academic support, or other programs to support underrepresented groups on campus?:

Yes

## A brief description of the programs sponsored by the institution to support underrepresented groups:

The Office of Minority Education runs two mentor programs – the Mentor Advocate Partnership (MAP) program that matches first year students with MIT faculty, grad students, or staff as mentors to help them successfully navigate MIT; we also offer E-MAP (e-mentoring) to upperclassmen with alumni and industry representatives serving as e-mentors for students during their tenure at MIT with an emphasis on helping students plan for their careers after MIT. In addition, many of the Student Organizations have Peer Mentor Programs, e.g., the Black Women’s Alliance has a little “sis” program to support frosh women.

**The website URL where more information about the support programs for underrepresented groups is available:**

<http://ome.mit.edu/programs-services/mentor-advocate-partnership>

**Does the institution have a discrimination response policy and/or team (or the equivalent) to respond to and support those who have experienced or witnessed a bias incident, act of discrimination or hate crime?:**

Yes

**A brief description of the institution's discrimination response policy, program and/or team:**

MIT Policy procedures Section 9.4 & 9.5 on Harassment & Office of General Counsel. We also have an anonymous form online where you can report homophobic incidents to LBGT@MIT and the MIT Police.

**The website URL where more information about the institution's discrimination response policy, program and/or team is available:**

<http://web.mit.edu/policies/9/9.4.html>

**Does the institution offer housing options to accommodate the special needs of transgender and transitioning students?:**

Yes

**Does the institution produce a publicly accessible inventory of gender neutral bathrooms on campus?:**

Yes

# Support for Future Faculty Diversity

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution administers and/or participates in a program or programs to help build a diverse faculty throughout higher education.

Such programs could take any of the following forms:

- Teaching fellowships or other programs to support terminal degree students from underrepresented groups in gaining teaching experience. (The terminal degree students may be enrolled at another institution.)
  - Mentoring, financial, and/or other support programs to prepare and encourage undergraduate or other non-terminal degree students from underrepresented groups to pursue further education and careers as faculty members.
  - Mentoring, financial, and/or other support programs for doctoral and post-doctoral students from underrepresented groups.
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"---" indicates that no data was submitted for this field

## Does the institution administer and/or participate in a program or programs to help build a diverse faculty that meet the criteria for this credit?:

Yes

## A brief description of the institution's programs that help increase the diversity of higher education faculty:

Report of the Initiative for Faculty Race and Diversity

Part I:

Executive Report and Recommendations

G. Existing Programs and Models for Success

Across the Institute, there have been several efforts introduced at departmental and school levels to address URM and women faculty recruitment, graduate student recruitment and pipeline issues. Furthermore, efforts have appeared to address hiring, search and hidden bias issues as well, with a number of new programs or policies developed over the past few years. In this section, we highlight a few examples of these efforts, many of which represent both known and new approaches to increase the pool of diverse candidates in hiring. Many of these efforts represent models or concepts that are indicated as Institute-wide mandates or goals in the recommendations. This short list is not intended to be exhaustive; there are numerous programs that exist across the Institute that also provide useful examples of ways in which diversity can be addressed. It is an intent of this study to initiate further discussion and sharing of such programs across the Institute, including both success stories and lessons learned from less successful attempts as a means of informing new efforts launched. Finally, it is important to emphasize that there are many examples of wonderful ideas and efforts that have been carried out on the campuses of other research-intensive universities. It is important to learn from these examples and determine which aspects of models set forth by peer institutions can be adapted to MIT. A few examples are provided here, but the list is not meant to be exhaustive, merely representative of the successful models embraced by our peer schools.

## Examples from MIT

### MIT Pappalardo Fellowships in Physics

The Pappalardo Fellows Program in Physics is highlighted here as a model that worked for increasing numbers of women faculty at MIT. For certain fields and disciplines, it is thought that similar models may be effective in increasing URM faculty candidates and hires. The mission of the MIT Pappalardo Fellowships in Physics is to sustain a distinguished, on-campus postdoctoral fellowship program for the department that identifies, recruits and supports the most talented and promising young physicists at an early stage of their careers. This initiative was made possible by the generosity of Mr. A. Neil Pappalardo (EE '64), an MIT alumnus with a long history of generosity to both the Institute and the Department of Physics. The program traditionally appoints three new fellows per academic year, each for a three-year fellowship term. Fellows are selected by means of an annual competition; candidates cannot apply directly, but must be nominated by a faculty member or senior researcher within the international community of physics, astronomy or related fields.

All MIT Pappalardo Fellows in Physics are provided with the following:

Independence in selection and focus of research direction within the MIT Department of Physics throughout their three-year fellowship term;

Active faculty mentoring fostered by weekly luncheons and monthly dinners with faculty and guests during the academic year, which promotes scientific exchange and professional growth for the fellows;

A competitive annual stipend with an annual cost-of-living increase (currently \$60K for first-year fellows), combined with \$5K per year in discretionary research funds; and

MIT Medical health insurance coverage for fellows and their dependents.

The outreach to the physics community for the program is large, with a rigorous selection process that engages faculty in the evaluation of fellows. Beginning each July, more than 1,300 physics (and related fields) faculty are emailed a solicitation for nominations of their top candidates for that fall's fellowship competition. Approximately 135 to 150 nominations are received each year. The review, evaluation and selection process begins with a thorough reading and grading of applicant materials (CV, publications list, research essay, three reference letters) by a minimum of two faculty members (typically both an experimentalist and a theorist in the candidate's area of physics). A short list of approximately 18 finalists is selected by committee consensus in mid-November. Over a two-day period in mid-December, the finalists meet for one half-hour each in a panel-style interview with the committee (15-20 minute "blackboard" talk by the finalist, with 10-15 minutes of Q & A with the faculty). At the end of this two-day interview period, the committee ranks all finalists, designating by consensus the top three to receive "first-round" offers, followed by five to six alternates, with the remaining half designated as not yet at that stage of career development that would allow them to benefit from an independent postdoctoral position such as the Pappalardo Fellowships.

Results of the MIT Pappalardo Fellowships Program indicate that from its inception year in 2000 to 2009, two of the five Pappalardo Fellows appointed to the MIT physics faculty are women (Gabriella Sciolla and Jocelyn Monroe). A total of 10 of the overall 34 Pappalardo Fellows during this same time period have been women (17 of 60 fellowship offers made were to women finalists), and 37 of 171 fellowship finalists invited to interview were women. It is also noted that each year since its inception, the Pappalardo Fellowships Executive Committee membership included one to two women faculty.

### Biology URM Student Outreach Programs

In the recent past, the Department of Biology has made intentional and focused efforts to address graduate student enrollment and, in particular, graduate student diversity. The determination of the faculty to address this problem and implement substantive change was additionally fueled by concerns expressed by the National Institutes of Health and related NIH training grants operated by the department. Several faculty members were committed to changing diversity numbers at the graduate student level, which will ultimately improve the pipeline for faculty hires. This progress has been facilitated in part by the hiring of a full-time staff person, Mandana Sassanfar, who has coordinated many of the department's new outreach programs and efforts. Thus, over the last five years, the Department of Biology has made great strides in increasing the diversity of the population by recruiting URM graduate students to its program. In this time period, the fraction of students who are underrepresented minorities has almost tripled, with a steady increase from 5.2% in 2004 to 14.4% in 2009.

A variety of positive and focused outreach activities have synergistically come together to contribute to this success. These activities include: 1) faculty participation in the major national conferences for minority scientists and undergraduate students, including the Annual Biomedical Research Conference for Minority Students (ABRCMS) and Society Advancing Hispanics/Chicanos and Native Americans in Science (SACNAS); 2) faculty visits to colleges and universities with a large URM population. This establishes regular and

direct contacts with directors of programs that aim to increase URM and underprivileged students' access to scientific research careers, e.g. Minority Access to Research Careers (MARC), Minority Biomedical Research Support (MBRS), the Meyerhoff Scholars Program at University of Maryland and the Howard Hughes Medical Institute (HHMI); 3) providing summer research opportunities to URM and underprivileged students at MIT (co-administered with the Science and Engineering-supported MIT Summer Research Program, or MSRP); 4) providing coordinated or individualized campus visits to MIT for URM and underprivileged students interested in graduate school in the biological sciences; and 5) providing opportunities for faculty from primarily URM-serving institutions to perform sabbatical research or to visit and present their research at MIT. These activities have contributed to success in recruiting outstanding minority students to the Biology program, not only by making direct contact with the students themselves, but also by providing opportunities for the Department of Biology to establish significant relationships with key faculty who mentor minority and disadvantaged students.

#### Future Faculty Workshop - Cross-disciplinary Materials Workshop

To address the need for increased diversity among faculty working in the areas of Chemistry and Chemical Engineering (as it relates to Polymer Science and Materials Science), Department Chair and Professor of Chemistry Tim Swager teamed with colleagues at Carnegie Mellon and the University of Massachusetts, Amherst, to create a workshop to train URM students and scholars in these fields. The workshop, designed to help prepare URM students for a faculty career, was a cross-disciplinary effort with the departments of Chemical Engineering and Materials Science and Engineering at MIT, and involved similar departments at the partner schools. The co-founder of the program is Prof. Richard McCullough, vice president for research and professor of chemistry, Carnegie Mellon University. This pilot workshop was held for the first time from June 15 to 17, 2008, at MIT's Endicott House. The second workshop was held in Pittsburgh, PA, at Carnegie Mellon from August 8 to 11, 2009, and a third one is being planned at the University of Massachusetts campus for 2010 or 2011.

The three-day workshop seeks to provide mentorship to aspiring underrepresented minority students with ambitions to become independent academic researchers in the areas of Chemistry, Chemical Engineering and Materials Science as they relate to Polymer Science, Materials Chemistry and Physics, Nanoscience, and Supramolecular Science. A diverse set of professors from varying ethnic backgrounds and stages of their careers participated as speakers and mentors, with a student/ faculty ratio of less than four maintained. Prominent faculty from each of the institutions involved participated in the program, giving lectures that included topics on research perspectives and practical issues, how to prepare a strong research plan for a faculty application, and how to find a good postdoctoral position. The agenda also included informal networking mixers, talks and panel discussions on preparing for the "Path to Professorship" by creating a strong experience in graduate school, developing research interests (creating a unique identity), choosing and cultivating mentors, developing strong references, sharing personal experiences in job interviews, the job application process, the job interview, writing research proposals, intellectual property issues and pitfalls, and unwritten rules. There were break-out sessions with mentors to work with students and postdocs on proposal development, and specific panels on running a research group and negotiations with department heads and deans. The technical research talks were presented by faculty in the evening sessions. Funding for the workshop was provided by the MIT departments of Chemistry, Chemical Engineering, Materials Science and Engineering; Carnegie Mellon University; University of Massachusetts, Amherst; Dow Chemical Co.; and the American Chemical Society Petroleum Research Fund (ACS-PRF).

#### Position of Manager of Diversity Recruitment for the School of Architecture and Planning

The hiring of a person who can focus on increasing the pipeline, the formation of networks and issues such as climate can be essential to advance diversity efforts on the department or school level. To this end, the dean of the School of Architecture and Planning has hired a manager of diversity recruitment (MDR), the only school-level position of its kind at MIT. The current person hired for this position is Dr. Robbin Chapman, a URM woman who earned her Ph.D. at MIT and is thus well acquainted with the Institute and its unique culture. The MDR supports faculty search committees within the school's units by assisting with outreach and the development of candidate pools; providing diversity training as requested; updating the school's faculty search handbook on diversity issues; and facilitating interaction between search committee chairs and the school's Faculty Diversity Committee. The MDR also assists with recruiting graduate students, via attendance at relevant conferences and engagement of faculty to do the same, and by serving as a point person for visiting URM prospective students. She facilitated the school's inaugural participation in the MITES program in 2009 and is a member of all SA&P department and school-level diversity committees.

The MDR convenes monthly diversity roundtable dialogues, which address a range of diversity and inclusion issues. The discussions provide practice in cross-cultural communication. The MDR has also championed diversity snapshots of a broad variety of SA&P faculty,

staff and students, to help viewers challenge their assumptions about individuals based on what can be seen. Each snapshot includes a photographic image and three lists, titled: "Some things you can see about me," "What you may guess about me," and "What you can't tell by looking at me." These snapshots - displayed on flat-panel screens in the school's corridors and common spaces - have received a good deal of positive response from students and faculty alike as a means of introducing members of the school's community while celebrating its diversity. Finally, the MDR office has led an open-to-the-Institute series of diversity workshops over MIT's Independent Activities Period (IAP). In sum, the MDR position appears to be a good use of resources, in large part because the current holder was an excellent fit for the appointment. More information is available at

<http://sap.mit.edu/about/diversity/>

#### Chemical Engineering Department ACCESS Program

For the first time in fall 2009, the Department of Chemical Engineering decided to launch a program directed toward potential graduate student candidates entitled "A Community in Chemical Engineering Select Symposium," or ACCESS. The program, initiated by Department Head Klavs Jensen, was in direct response to suggestions and recommendations derived from the visit by the Chemical Engineering 2009 Visiting Committee (VC). Among the recommendations, one proposed by a member of the MIT Corporation was to develop a program that directly engages a broader pool of diverse applicants to the department via outreach. In separate discussions, another VC member, who is chief executive at Dow Chemical Company, offered to fund such a program. The symposium was organized by the department's student office and headed by Student Administrator Suzanne Easterly and her staff, with support from the Graduate Admissions Chair, Professor Arup Chakraborty.

The ACCESS program is a three-day visit to MIT that provides URM undergraduate students (juniors and seniors) with an overview of the potential benefits of a graduate chemical engineering degree. In addition to the educational and research opportunities inherent in graduate studies, the program gives details on the MIT community and available support for minority students. During their visit, participants also receive a glimpse of graduate student life in the Boston area. The first ACCESS symposium, held in late October, engaged 17 students from diverse backgrounds, including a dominant number of URMs. All received one-on-one discussions with faculty members in research areas of interest to them, research lectures from prominent faculty members, workshops on the chemical engineering graduate school application process, and discussions about graduate opportunities at MIT and beyond. Only an undergraduate student nominated by his or her current school's department head can apply to attend ACCESS. Faculty at the peer U.S. institutions in Chemical Engineering, as well as historically Black colleges & universities/minority institutions (HBCU/MIs), are contacted about the program, and nominations are solicited and advertised broadly. Early reports from this program indicate that several students were excited about the prospect of applying to MIT. Finally, all received significant information regarding the admission requirements that can help them shape their undergraduate background to increase the possibility of admittance to MIT and other top schools in the field.

#### SHASS - Search Oversight and Departmental Lecture Series

SHASS leadership (Dean Fitzgerald and three predecessors) has exercised joint faculty and administrative oversight of all search and hiring requests from each department at the school level. A committee consisting of the dean, associate deans, director of human resources, and an equal number of faculty from various departments reviewed each "Request to Search" and "Request to Hire" to assure the use of best practices, and to serve as a backstop even when the department designated its own minority interests representative on a search committee. The joint committee has visited departments to speak with the full faculty, search committee and/or department head prior to planned searches in order to discuss best practices and to answer questions.

The deans have encouraged department heads and committed individual faculty members to make creative use of Institute Target of Opportunity guidelines. In addition, they have offered funds to support a departmental lecture series to enable colleagues to meet and scrutinize potential candidates among their cohort before a formal search. Within the last five years, the dean has challenged each SHASS unit to present the names of senior minority scholars in their fields who could be tenured at MIT. From these lists, efforts to recruit and hire were made with one yield. The department heads have used Targets of Opportunity within a search to add a previously unanticipated talent or dimension of the field and, since 1995, at least 13 URM scholars have been added to SHASS in departments such as Music and Theater Arts, Linguistics and Philosophy, Writing and Humanistic Studies, Anthropology, History, Literature, and Science, Technology and Society. Six are now tenured professors. Of these six, one was hired as the result of a discipline-based lecture series funded by the dean's office.



## Hidden Bias Discussions in the School of Science

During the 2008-2009 academic year, the School of Science (SoS) Dean's Office sponsored discussions concerning "hidden bias" for faculty in each SoS department. Discussions were organized and led by two highly qualified MIT faculty members, Professor Sally Haslanger (philosophy) and Prof. Thomas DeFrantz (theater arts, women's and gender studies). Attendance was strongly encouraged and monitored. These sessions appeared to facilitate conversations about concepts surrounding bias ("schemas") and opened the way for further consideration of bias present in a department that may impact recruitment and retention. Previous hidden bias seminars had been presented in 2007 at MIT Sloan by Associate Dean JoAnne Yates and Barbara Liskov. The material used for the more recent discussions was adapted from materials utilized by the STRIDE program at Michigan (see below).

Each department advertised the discussion to its faculty members, including the following text: "The upcoming discussion concerning 'Overcoming Hidden Bias,' sponsored by the dean's office, comprises a forum to address hidden gender and racial bias. The interesting notion of 'schemas' - unconscious expectations that govern our interactions - will specifically be explored. We hope that these discussions will be a productive way to help faculty identify hidden bias, especially during recruitment and retention."

## School of Engineering - Central Coordination of Search Committees

When the School of Engineering administration informally surveyed search committees after the completion of searches, it was found that women and URM candidates were sometimes not selected because of a lack of fit rather than a lack of qualifications. In such cases, the candidate was highly qualified, but the research area did not appear to meet the more specific needs of the department. The dean's office responded to this observation by adapting the flexibility of hires as well as the opportunity for excellent top candidates to be hired in an appropriate unit within the school. This approach has contributed to the hiring of five URM faculty and 10 women in the past two recruiting years. One of several key means of accomplishing this flexibility is the formation of a Faculty Search Committee in the school. For the past two years, every search goes through a central coordination with Associate Dean Cindy Barnhardt. Barnhardt chairs the Faculty Search Diversity Committee, the members of which are the search chairs of each department. This committee meets every three to four weeks during the recruiting season (from November through May) to discuss information about specific candidates, in part because some applicants apply for more than one department. Before interviews begin, interview lists are sent to Barnhardt along with lists of eliminated women and minorities. At the meeting, the reasons for elimination of these candidates are discussed, and if the candidate is not a good fit for a given department, there is the opportunity for another department in a related field to consider the candidate. Such opportunities are not unusual, as research in the engineering fields has become more and more interdisciplinary. By utilizing this system of coordination, a candidate who is highly qualified has a greater chance of being considered and ultimately hired by one of the engineering departments.

## MIT Sloan - Cluster Hiring

For some time the MIT Sloan School of Management had tried to hire a senior woman for a Target of Opportunity (TOO) slot, but without success. In fact, MIT Sloan was the only school that had not made such an appointment, which ultimately led the deputy dean - concerned about diversity hiring - to authorize certain slots as TOO only, particularly to groups whose case for a slot was less strong. Certain groups who only had a TOO slot were then much more active in looking for candidates and did indeed make offers to senior women. The ability to use cluster hiring - hiring in larger groups and a range of different areas - enables greater inclusion of people from diverse groups, including women and URMs. In addition, the combination of broader cluster hires with some TOO restrictions can lead to increased diversity in hiring. In recruitment for the 2009-2010 year, MIT Sloan authorized 21 positions of which eight were specifically designated as TOO. MIT Sloan made 30 offers for the 21 slots, as some of the top candidates turned down offers in favor of other opportunities.

The distribution of the offers is as follows:

- 2 senior male minority
- 1 junior female minority
- 5 senior White women
- 4 junior White women
- 18 others, all male

The final roster of 14 new faculty consists of the following:

- 1 senior male minority
- 1 junior female minority
- 2 senior White women



3 junior White women

7 others, all male

The provost gave Sloan two TOO slots to cover these positions.

The distribution of the 21 "first choice" invitations is also very diverse:

2 senior male minority

1 junior female minority

5 senior White women

3 junior White women

10 others, all male

Experimental data have shown that selecting 10 candidates from a pool at one time leads to a more diverse group than selecting 10 people one at a time from the same pool. This is behind the recommendation for cluster hiring, which has a secondary advantage of creating a cohort of newcomers, which can be particularly helpful for all junior faculty.

#### MIT Summer Research Program

Since its first summer in 1986, MSRP has tirelessly worked to increase the pool of minority students who pursue graduate degrees. During this time, MSRP has seen more than 90% of program participants pursue advanced degrees. With a goal of encouraging and preparing students to pursue graduate degrees at an institution of higher learning (not specifically at MIT), MIT was able to capture 17% of the 400 program participants.

A faculty committee, commissioned in 2004 by then-Provost Robert Brown, was charged with redesigning MSRP as MIT's premier recruitment tool for underrepresented minority students. Since then, the committee has continued to serve as an advisory board for MSRP. Working with this committee, chaired by Professor Paula Hammond of the Department of Chemical Engineering, Christopher Jones (assistant dean for graduate education) has continued to implement important changes in the program. During its redesign, MSRP articulated its mission: "To promote the value of graduate education, to improve the research enterprise through increased diversity, and to prepare and recruit the best and brightest for graduate education at MIT." As a direct result of the redesign, there has been an increase in the number of MSRP participants who apply to, are admitted and ultimately decide to enroll in MIT's graduate programs.

Since the expansion of MSRP in 2005, more departments and programs throughout the Institute have become active participants, and the 2009 class included interns who worked in urban studies and mathematics. Not only have each of the five MIT schools agreed to a five-year commitment to fund a number of the interns, but several faculty members have added MSRP to their research grants providing funding for individual interns. MSRP continues to build lasting relationships within the MIT and broader Boston communities. To further engage the departments, MSRP continues formal visits with graduate officers, graduate administrators and current students in the departments in which MSRP interns have expressed an interest.

Key to the success of MSRP is faculty participation. Since 1986, more than 150 faculty members from a range of Institute departments have served as direct mentors to more than 500 MSRP interns. Faculty involvement includes program design, intern selection and matching interns with projects and academic interactions. MSRP continues to have a significant academic component in which faculty conduct weekly lunch seminars on their research.

Finally, MSRP continues to be successful at engaging alumni of the program who currently attend MIT as graduate students, hosting several events and dinners to bring this group together while also providing resources for their success.

#### Peer Institution Examples

University of Michigan STRIDE (Science and Technology Recruiting to Improve Diversity and Excellence)

This program was established under the University of Michigan's NSF ADVANCE program with the leadership of ADVANCE's PI, a social scientist familiar with the gender field. The design was based on and further adapted from Harvard University's Committee on Faculty Diversity. The initial committee was recruited by the deans of three colleges in the science and engineering fields and consisted of a group of highly respected senior faculty who were given resources for course release or research support. STRIDE was led by social scientist and Professor of Psychology and Women's Studies Abigail Stewart, who was provided with staff support. The STRIDE committee members, consisting of a majority of men, were actually new to the PI and to each other. They spent a summer reviewing research literature on gender schemas and evaluation bias, discussed it with the PI, and ultimately produced a PowerPoint presentation along with a 27-page recruiting handbook. They then met with departments, department heads, recruiting committees, and anyone else interested to give their presentations and lead discussions. The handbook was widely distributed by the deans. During the first year of their efforts, the recruitment of women scientists doubled from 15% to 31%. In later years, they began to recruit other faculty allies into a

new group called FASTER (Friends and Allies of Science and Technology Equity in Recruiting) and taught the new members what they had learned. Today, many universities, including MIT, have based their own presentations on STRIDE. The University of Michigan is now supporting the program since their NSF funding has ended.

<http://sitemaker.umich.edu/advance/stride>

#### Fisk-Vanderbilt Master's-to-Ph.D. Bridge Program

This program emerged from two facts about the trajectories of minority students to the doctorate in science. First, the 10 top producers of African American baccalaureates in physics are HBCUs. Second, the trajectory of minority students to move toward a doctorate is more likely to be via a master's degree in a different institution, hence creating complicated transition issues not typically found with non-minority students. The Bridge Program that emerged is based on applications to Fisk for a master's degree in physics. After successful completion of that degree, including a master's thesis, students can apply to Vanderbilt Ph.D. programs in physics, astronomy, materials, biology and the biomedical sciences. These students are not promised admission to the Vanderbilt Ph.D. program and, like other candidates, have to meet the standard requirements. What they are offered, however, is the following: the opportunity to take courses at Vanderbilt during their time at Fisk; the provision of a Vanderbilt advisor as well as a Fisk advisor; help in preparation for the GREs; and an invitation to participate in programs such as Preparing Future Faculty.

At the time of application to Fisk, students are asked if they want to be considered for the Bridge Program. The application goes through the standard Fisk admissions process and then proceeds to the Bridge committee, consisting of relevant faculty from both institutions and including the Vanderbilt graduate admissions person. Criteria for admission to the Bridge Program are not proven ability but unrealized potential, which is gauged by personal visits with faculty at baccalaureate schools, heavy marketing, and attendance at minority association meetings and conferences. The program, therefore, is meant to increase the pool of minority Ph.D.s, rather than fight for those who already meet the accepted criteria of admission to top programs. It has had the secondary effect of increasing applications to Vanderbilt science doctoral programs from minority students who do meet the usual criteria.

During the Bridge years, students take courses at Fisk and at Vanderbilt, including at least one core Ph.D. course at Vanderbilt. They have advisors from both schools and have research experiences with faculties at both. Their Vanderbilt advisor serves as a mentor on the Vanderbilt Ph.D. application and admission process and is specifically geared to being an advocate for the student during this time. This one-to-one relationship between the Fisk student and the Vanderbilt mentor is the core of the program. In addition, full financial support is provided during the Bridge years and during the Ph.D. program, if the person is accepted. To date, the success rate of acceptance to Vanderbilt is 97% and they attribute their failures to the program, rather than to the student. They have actually modified the program on the basis of some of these failures and are beginning to send a few of their students to other Ph.D. programs, including one at Yale Meyerhoff Scholars Program at University of Maryland, Baltimore County (UMBC)

This program started in 1988 with a grant from Robert and Jane Meyerhoff to provide financial aid, mentoring, advising and research experience to young African American male undergraduates committed to getting Ph.D.s in STEM fields. In 1990 women were admitted to the program, and in 1996 it was opened to people from all backgrounds who were "committed to increasing the representation of minorities in science and engineering." That year also was the beginning of the Meyerhoff Graduate Fellows Program in the biomedical and behavioral sciences.

Selected scholars receive full financial aid, including room and board, and attend a mandatory six-week summer bridge program, which includes courses in math and science as well as in African American studies. The bridge program is not seen as remedial, as students are chosen for their strengths, but is meant to acclimate students to the philosophy of the program. The college experience of these scholars is based on high academic expectations, with students working together in study groups. They are also expected to participate in some community activities. While the group forms a close community, each individual also receives personal advising, counseling and tutoring as necessary, as well as a mentor from the larger Baltimore-Washington area. During the summer, students are placed into research internships provided with stipends. The program's underlying philosophy is high expectations and appropriate environmental support. A recent evaluation comparing the first 10 years of Meyerhoff Scholars with those who were accepted into the program but declined (students with higher verbal SATs who went to universities of somewhat higher standing) showed that 29% of the Meyerhoff group compared to only 5.5% of those in the comparison group had graduated from or were attending STEM Ph.D. or M.D./Ph.D. programs, a dramatic difference.

Previous:

F. Plan for Institutional

Implementation, Assessment and

Ongoing Evaluation of ProgressNext:

H. Follow-up on the Preliminary Report:

Short-Term Recommendations

of the Initiative

L. Rafael Reif

Office of the Provost

Room 3-208

Massachusetts Institute of Technology

77 Massachusetts Avenue

Cambridge, MA 02139-4307

(617) 253-4500 phone

(617) 253-8812 fax

**The website URL where more information about the faculty diversity program(s) is available :**

<http://web.mit.edu/provost/raceinitiative/exec-g.html>

# Affordability and Access

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### Part 1

Institution has policies and programs in place to make it accessible and affordable to low-income students and/or to support non-traditional students. Such policies and programs may include, but are not limited to, the following:

- Policies and programs to minimize the cost of attendance for low-income students
- Programs to equip the institution's faculty and staff to better serve students from low-income backgrounds
- Programs to prepare students from low-income backgrounds for higher education (e.g. U.S. federal TRIO programs)
- Scholarships provided specifically for low-income students
- Programs to guide parents of low-income students through the higher education experience
- Targeted outreach to recruit students from low-income backgrounds
- Scholarships provided specifically for part-time students
- An on-site child care facility, a partnership with a local facility, and/or subsidies or financial support to help meet the child care needs of students

### Part 2

Institution is accessible and affordable to low-income students as demonstrated by one or more of the following indicators:

- A. The percentage of entering students that are low-income
  - B. The graduation/success rate for low-income students
  - C. The percentage of student financial need met, on average
  - D. The percentage of students graduating with no interest-bearing student loan debt
- 

"---" indicates that no data was submitted for this field

**Does the institution have policies and programs in place to make it accessible and affordable to low-income students?:**

Yes

**A brief description of any policies and programs to minimize the cost of attendance for low-income students:**

Need-blind admissions, all aid awarded based on need, meet full-need

**A brief description of any programs to equip the institution's faculty and staff to better serve students from low-income backgrounds:**

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**A brief description of any programs to prepare students from low-income backgrounds for higher education:**

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**A brief description of the institution's scholarships for low-income students:**

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**A brief description of any programs to guide parents of low-income students through the higher education experience:**

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**A brief description of any targeted outreach to recruit students from low-income backgrounds:**

QuestBridge

**A brief description of other admissions policies or programs to make the institution accessible and affordable to low-income students:**

Need-blind admissions, all aid awarded based on need, meet full-need

**A brief description of other financial aid policies or programs to make the institution accessible and affordable to low-income students:**

Need-blind admissions, all aid awarded based on need, meet full-need

**A brief description of other policies and programs to make the institution accessible and affordable to low-income students not covered above:**

Need-blind admissions, all aid awarded based on need, meet full-need

**Does the institution have policies and programs in place to support non-traditional students?:**

No

**A brief description of any scholarships provided specifically for part-time students:**

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**A brief description of any onsite child care facilities, partnerships with local facilities, and/or subsidies or financial support to help meet the child care needs of students:**

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**A brief description of other policies and programs to support non-traditional students:**

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**Does the institution wish to pursue Part 2 of this credit (accessibility and affordability indicators)?:**

Yes

**Indicators that the institution is accessible and affordable to low-income students::**

	Percentage (0-100)
The percentage of entering students that are low-income	18
The graduation/success rate for low-income students	93
The percentage of student financial need met, on average	100
The percentage of students graduating with no interest-bearing student loan debt	60

**The percentage of students that participate in or directly benefit from the institution's policies and programs to support low-income and non-traditional students:**

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**The website URL where information about the institution's affordability and access programs is available:**

<http://mitadmissions.org/afford/basics>

# Health, Wellbeing & Work

This subcategory seeks to recognize institutions that have incorporated sustainability into their human resources programs and policies. An institution's people define its character and capacity to perform; and so, an institution's achievements can only be as strong as its community. An institution can bolster the strength of its community by making fair and responsible investments in its human capital. Such investments include offering benefits, wages, and other assistance that serve to respectfully and ethically compensate workers and acting to protect and positively affect the health, safety and wellbeing of the campus community. Investment in human resources is integral to the achievement of a healthy and sustainable balance between human capital, natural capital, and financial capital.

<b>Credit</b>
Employee Compensation
Assessing Employee Satisfaction
Wellness Program
Workplace Health and Safety

# Employee Compensation

## Criteria

### *Part 1*

Institution's employees and/or the employees of its on-site contractors are covered by sustainable compensation standards, guidelines, or policies and/or collective bargaining agreements.

A sustainable compensation (or "living wage") standard, guideline or policy is one that addresses wages and benefits in terms of the ability of employees to meet basic needs. For example, a sustainable compensation policy may index hourly wages to a poverty guideline or to local cost-of-living indicators. A labor market survey, salary survey or similar assessment may be used in conjunction with a basic needs/cost-of-living approach, but is not sufficient on its own to count as a sustainable compensation policy.

### *Part 2*

Institution's employees and/or the employees of its on-site contractors receive sustainable compensation.

To earn points for Part 2 of this credit, an institution must assess employee compensation against one or more of the following:

1. A sustainable compensation standard developed or adopted by a committee with multi-stakeholder representation (i.e. its membership includes faculty, staff, and students and may include Human Resources administrators or other parties). The standard need not be formally adopted by the institution.
2. A sustainable compensation standard that is in use in the institution's locality. The standard may be formal (e.g. a "living wage" ordinance covering public employees) or informal (e.g. a standard adopted by a local, regional or national campaign).
3. An appropriate poverty guideline, threshold or low-income cut-off for a family of four.

For institutions that elect to assess compensation against a poverty guideline, threshold or low-income cut-off, sustainable compensation is defined as wages equivalent to 120 percent of the poverty guideline for a family of four. An institution may offset up to 20 percent of the wage criteria with employer-paid benefits that address basic needs (e.g. healthcare and retirement contributions).

Both parts of this credit are based on the total number of employees working on campus as part of regular and ongoing campus operations, which includes:

- Staff and faculty, i.e. all regular full-time, regular part-time and temporary (or non-regular) employees, including adjunct faculty and graduate student employees (e.g. teaching and research assistants). Institutions may choose to include or omit undergraduate student workers.
- Employees of contractors that work on-site as part of regular and ongoing campus operations. Such contractors may include, but are not limited to, providers of dining/catering, cleaning/janitorial, maintenance, groundskeeping, transportation, and retail services.

Construction and demolition crews and other temporary contracted employees may be excluded.

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This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.



# Assessing Employee Satisfaction

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution conducts a survey or other evaluation that allows for anonymous feedback to measure employee satisfaction and engagement. The survey or equivalent may be conducted institution-wide or may be done by individual departments or divisions. The evaluation addresses (but is not limited to) the following areas:

- Job satisfaction
- Learning and advancement opportunities
- Work culture and work/life balance

The institution has a mechanism in place to address issues raised by the evaluation.

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*"---" indicates that no data was submitted for this field*

## **Has the institution conducted an employee satisfaction and engagement survey or other evaluation that meets the criteria for this credit?:**

Yes

## **The percentage of employees (staff and faculty) assessed, directly or by representative sample:**

61

## **A brief description of the institution's methodology for evaluating employee satisfaction and engagement:**

On January 18, 2012 Provost Rafael Reif and Executive Vice President and Treasurer Israel Ruiz invited MIT faculty and staff to participate in a quality of life survey. The web-based survey was sponsored by the Council on Family and Work, Office of the Provost, and Chair of the Faculty. The purpose was to examine the work-life environment for faculty, other instructional staff, researchers, postdoctoral scholars, administrative staff, support staff, and service staff at MIT. The 2012 Survey closed in late February with more than 7,000 responses (61% overall response rate).

## **A brief description of the mechanism(s) by which the institution addresses issues raised by the evaluation (including examples from the previous three years):**

Since the data captured via the Faculty and Staff Quality of Life survey provides local responses, the department takes action based on the issues that have been identified. We are aware of several areas who are currently working to address the issues being raised.

**The year the employee satisfaction and engagement evaluation was last administered:**

2,012

**The website URL where information about the institution's employee satisfaction and engagement assessment is available:**

<http://web.mit.edu/ir/surveys/staffsurvey.html>

# Wellness Program

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## Responsible Party

TBD TBD  
TBD  
Office of the Registrar

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## Criteria

Institution has a wellness and/or employee assistance program that makes available counseling, referral, and wellbeing services to all members of any of the following groups:

- Students
  - Staff
  - Faculty
- 

"---" indicates that no data was submitted for this field

## Does the institution make counseling, referral, and wellbeing services available to all members of the following groups?:

	Yes or No
Students	Yes
Staff	Yes
Faculty	Yes

## A brief description of the institution's wellness and/or employee assistance program(s):

MIT Medical's Mental Health and Counseling Service is a resource for the entire MIT community: Students, Employees, Faculty, Staff, and Family members. MIT Medical offers assistance to individuals dealing with personal concerns including anxiety, depression, relationship problems, or stress.

They also provide consultation and guidance to friends, roommates, faculty members, family members, and others who are concerned about the wellbeing of an MIT student or any other member of the Institute community.

Any member of the MIT community can use the Mental Health and Counseling Service without a referral. Mental health and counseling services are free for students; copayments may be required for employees. Employees with a health plan other than the MIT Health Plan may be charged for visits.

**The website URL where information about the institution's wellness program(s) is available:**

[http://medweb.mit.edu/directory/services/mental\\_health.html](http://medweb.mit.edu/directory/services/mental_health.html)

# Workplace Health and Safety

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

### Part 1

Institution has reduced its total number of reportable workplace injuries and occupational disease cases per full-time equivalent (FTE) employee compared to a baseline.

### Part 2

Institution has fewer than 5 reportable workplace injuries and occupational disease cases annually per 100 full-time equivalent (FTE) employees.

This credit includes employees of contractors working on-site for whom the institution is liable for workplace safety, for example workers for whom the institution is mandated to report injuries and disease cases by a health and safety authority such as the U.S. Occupational Health and Safety Administration (OSHA) or the Canadian Center for Occupational Health and Safety (CCOHS). Injuries and disease cases include OSHA/CCOHS-reportable fatal and non-fatal injuries (or the equivalent) arising out of or in the course of work and cases of diseases arising from a work-related injury or the work situation or activity (e.g. exposure to harmful chemicals, stress, ergonomic issues). See *Sampling and Data Standards*, below, for further guidance on reporting injuries and disease cases.

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### Submission Note:

Employee numbers for OSHA reporting are reported by calendar year (January-December) rather than fiscal year (July-June). Recordable instances are not estimates - they are real numbers based on incidents recorded for each fiscal year (July-June).

"---" indicates that no data was submitted for this field

Please enter data in the table below::

	Performance Year	Baseline Year
Number of reportable workplace injuries and occupational disease cases	220	222
Full-time equivalent of employees	8,956	8,881

**Start and end dates of the performance year and baseline year (or three-year periods):**

	Start Date	End Date
Performance Year	July 1, 2012	June 30, 2013
Baseline Year	July 1, 2007	June 30, 2010

**A brief description of when and why the workplace health and safety baseline was adopted:**

To be consistent across the STARS report, baseline years were set to be three fiscal years from 2008 to 2010.

**A brief description of the institution's workplace health and safety initiatives:**

The Environment, Health, and Safety Office has implemented several key programs to reduce workplace incidents and ensure buy-in from principal investigators/faculty. A new orientation program was created in FY2011 to ensure that these individuals were aware of various resources available on campus.

Beyond this program, major initiatives including the Working Alone Policy and the Machine Shop program sought to improve safety in light of a recent tragedy at Yale University. These policies brought together key stakeholders including the Environment, Health, and Safety Council and the Academic Council to improve safety while maintaining the ability to conduct cutting edge research. Furthermore, the EHS office has begun conducting a risk assessment of all labs on campus through the Comprehensive Laboratory Hazard Assessment. After a successful pilot program, this is being rolled out across the Institute.

To further understand future issues, the EHS office has also expanded its incident reporting system to include students and not just staff. This collaboration with MIT Medical has improved the visibility of recordable incidents so that they can be more easily addressed in the future.

**The website URL where information about the institution's workplace health and safety initiatives is available:**

[http://ehs.mit.edu/site/work\\_safety](http://ehs.mit.edu/site/work_safety)

# Investment

This subcategory seeks to recognize institutions that make investment decisions that promote sustainability. Most institutions invest some of their assets in order to generate income. Together, colleges and universities invest hundreds of billions of dollars. Schools with transparent and democratic investment processes promote accountability and engagement by the campus and community. Furthermore, institutions can support sustainability by investing in companies and funds that, in addition to providing a strong rate of return, are committed to social and environmental responsibility. Investing in these industries also supports the development of sustainable products and services. Finally, campuses can engage with the businesses in which they are invested in order to promote sustainable practices.

Throughout this subcategory, the term “sustainable investment” is inclusive of socially responsible, environmentally responsible, ethical, impact, and mission-related investment.

<b>Credit</b>
Committee on Investor Responsibility
Sustainable Investment
Investment Disclosure

# Committee on Investor Responsibility

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution has a formally established and active committee on investor responsibility (CIR) or similar body that makes recommendations to fund decision-makers on socially and environmentally responsible investment opportunities across asset classes, including proxy voting. The body has multi-stakeholder representation, which means its membership includes faculty, staff, and students and may include alumni, trustees, and/or other parties.

Institutions for which investments are handled by the university system and/or a separate foundation of the institution should report on the investment policies and activities of those entities.

A general committee that oversees the institution's investments does not count for this credit unless social and environmental responsibility is an explicit part of its mission and/or agenda.

This credit applies to institutions with endowments of US \$1 million or larger. Institutions with endowments totaling less than US \$1 million may choose to omit this credit.

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## Submission Note:

Yes. For complicated or new issues, MIT convenes the Advisory Committee for Shareholder Responsibility to make recommendations on broad policy questions. The committee is composed of faculty, staff, students and trustees. MIT also has set up a separate task force composed of faculty, students and staff to consider, among other things, investment issues related to fossil fuels.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.



## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

There are two possible approaches to this credit; institutions may pursue one or both. Institutions for which investments are handled by the university system, a separate foundation of the institution and/or a management company contracted by the institution should report on the combined activities of those entities.

### *Option 1: Positive Sustainability Investment*

Institution invests in one or more of the following:

- **Sustainable industries** (e.g. renewable energy or sustainable forestry). This may include any investment directly in an entire industry sector as well as holdings of companies whose entire business is sustainable (e.g. a manufacturer of wind turbines).
- **Businesses selected for exemplary sustainability performance** (e.g. using criteria specified in a sustainable investment policy). This includes investments made, at least in part, because of a company's social or environmental performance. Existing stock in a company that happens to have socially or environmentally responsible practices should not be included unless the investment decision was based, at least in part, on the company's sustainability performance.
- **Sustainability investment funds** (e.g. a renewable energy or impact investment fund). This may include any fund with a mission of investing in a sustainable sector or industry (or multiple sectors), as well as any fund that is focused on purchasing bonds with sustainable goals.
- **Community development financial institutions** (CDFI) or the equivalent (including funds that invest primarily in CDFIs or the equivalent).
- **Socially responsible mutual funds with positive screens** (or the equivalent). Investment in a socially responsible fund with only negative screens (i.e. one that excludes egregious offenders or certain industries, such as tobacco or weapons manufacturing) does not count for Option 1.
- **Green revolving loan funds** that are funded from the endowment

### *Option 2: Investor Engagement*

Institution has policies and/or practices that meet one or more of the following criteria:

- Has a publicly available sustainable investment policy (e.g. to consider the social and/or environmental impacts of investment decisions in addition to financial considerations)
- Uses its sustainable investment policy to select and guide investment managers
- Has engaged in proxy voting to promote sustainability, either by its CIR or other committee or through the use of guidelines, during the previous three years
- Has filed or co-filed one or more shareholder resolutions that address sustainability or submitted one or more letters about social or environmental responsibility to a company in which it holds investments, during the previous three years

- Has a publicly available investment policy with negative screens, for example to prohibit investment in an industry (e.g. tobacco or weapons manufacturing) or participate in a divestment effort (e.g. targeting fossil fuel production or human rights violations)
  - Engages in policy advocacy by participating in investor networks (e.g. Principles for Responsible Investment, Investor Network on Climate Risk, Interfaith Center on Corporate Responsibility) and/or engages in inter-organizational collaborations to share best practices
- 

**Submission Note:**

MIT does not release lists of its investment holdings or managers. MIT is invested in a wide variety of sustainability-related businesses such as a large-scale solar energy producer in India, companies on the forefront of biofuel technology in the U.S., and community development programs.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

# Investment Disclosure

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## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

Institution makes a snapshot of its investment holdings available to the public, including the amount invested in each fund and/or company and proxy voting records. The snapshot of holdings is updated at least once per year.

Institutions for which investments are handled by the university system, a separate foundation of the institution and/or a management company contracted by the institution should report on the combined activities of those entities.

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### Submission Note:

MIT discloses investment policy documents and publishes an annual update letter but does not provide details of specific investments.

"---" indicates that no data was submitted for this field

### Does the institution make a snapshot of its investment holdings available to the public?:

No

### The percentage of the total investment pool included in the snapshot of investment holdings:

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### A copy of the investment holdings snapshot:

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### The website URL where the holdings snapshot is publicly available:

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# Innovation

## Innovation

These credits recognize institutions that are seeking innovative solutions to sustainability challenges and demonstrating sustainability leadership in ways that are not otherwise captured by STARS.

Credit
Innovation 1
Innovation 2
Innovation 3
Innovation 4

## Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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## Criteria

1. Innovation credits are reserved for new, extraordinary, unique, ground-breaking, or uncommon outcomes, policies, and practices that greatly exceed the highest criterion of an existing STARS credit or are not covered by an existing STARS credit.
2. In general, innovation credits should have roughly similar impacts or be on the same scale as other STARS credits.
3. Outcomes, policies, and practices that are innovative for the institution's region or institution type are eligible for innovation credits.
4. The innovative practice, policy, program, or outcome must have occurred within the three years prior to the anticipated date of submission.
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For example, if an institution claims an innovation credit for water use reduction, the institution might solicit a letter from a hydrologist or a water expert from another campus or organization to verify that the strategy is innovative. An innovation may be affirmed internally by campus personnel who are independent of the policy, practice, program, or outcome. Please note that it is not required that the individual be employed in the higher education sector to submit a letter of verification.

The letter should be specific to a single innovation credit. If an institution is claiming three innovation credits, it would solicit and submit three separate letters, with each letter speaking to the specific innovation credit it addresses.

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**Title or keywords related to the innovative policy, practice, program, or outcome:**

MIT Efficiency Forward

**A brief description of the innovative policy, practice, program, or outcome :**

In an effort to dramatically cut energy use at one of the country’s premier academic and research institutions, NSTAR and MIT are teaming up to launch the single most aggressive efficiency project in NSTAR history. Dubbed “MIT Efficiency Forward,” the program has a goal of cutting electricity use by 15 percent over three years through innovative programs, substantial student, faculty, and staff engagement, and the piloting of new technologies and approaches at MIT. The long-term partnership is a first-of-its kind for both the Institute and the utility and establishes a new approach for sustainable solutions. In the three-year period, the target energy savings is 34 million kilowatt-hours; that’s equivalent to the amount of electricity used by more than 4,500 Massachusetts homes in a given year.

- Source 1:

<http://mitei.mit.edu/news/shared-success-story-points-hopeful-energy-future-massachusetts>

- Source 2:

<http://web.mit.edu/newsoffice/2010/nstar-mit-0526.html>

**A brief description of any positive measurable outcomes associated with the innovation (if not reported above):**

MIT has surpassed its first 32 million kwh savings goal. On track to save an additional 20 million kwh through 2015.

**A letter of affirmation from an individual with relevant expertise:**

[MIT-Innovation\\_Credit.docx](#)

**Which of the following STARS subcategories does the innovation most closely relate to? (Select all that apply up to a maximum of 5):**

	Yes or No
Curriculum	No
Research	No
Campus Engagement	No

<b>Public Engagement</b>	No
<b>Air &amp; Climate</b>	Yes
<b>Buildings</b>	Yes
<b>Dining Services</b>	No
<b>Energy</b>	Yes
<b>Grounds</b>	No
<b>Purchasing</b>	No
<b>Transportation</b>	No
<b>Waste</b>	No
<b>Water</b>	No
<b>Coordination, Planning &amp; Governance</b>	Yes
<b>Diversity &amp; Affordability</b>	No
<b>Health, Wellbeing &amp; Work</b>	No
<b>Investment</b>	No

**Other topic(s) that the innovation relates to that are not listed above:**

Energy efficiency

**The website URL where information about the innovation is available :**

<http://web.mit.edu/facilities/environmental/efficiencyforward/index.html>

### Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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### Criteria

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**Title or keywords related to the innovative policy, practice, program, or outcome:**

MIT Clean Energy Prize

**A brief description of the innovative policy, practice, program, or outcome:**

The CEP is the US's largest student run energy innovation and entrepreneurship competition that awards over \$400,000 in prizes annually.

The Clean Energy Prize's mission is to be the catalyst for a unified competition to help develop a new generation of energy entrepreneurs and great new companies. This will be achieved by working to stimulate productive relationships between academic, community, industry, and government organizations with strong interests in meeting the world's energy challenge through innovation and entrepreneurship.

**A brief description of any positive measurable outcomes associated with the innovation (if not reported above):**

MIT Clean Energy Prize. The MIT Clean Energy Prize is one of the foremost university competitions in the world that provides applicants with the opportunity to demonstrate new and exceptional ways to effectively make clean energy a cost-effective concept that will bring about positive environmental impacts. Its mission statement says thus, "The MIT Clean Energy Prize will catalyze a new generation of clean energy solutions to meet the world's energy challenge through innovation and entrepreneurship." Since established in 2008, this innovation and venture creation competition has aided in the startup of a number of energy ventures, including Covalent Solar and Levant Power.

The Clean Energy Prize innovation and entrepreneurship competition awards over \$400,000 in prizes to cutting-edge startups from universities across the US. We prepare tomorrow's clean energy leaders by advancing their relationships with academic, community, industry, and government players to help them meet the world's pressing energy challenges.

The CEP is generously sponsored by:

Title Sponsor: NSTAR

Gigawatt Sponsors: GE and GDF Suez

Legal Sponsor: Morrison and Foerster

Megawatt Sponsors: Factor(E) and the Massachusetts Clean Energy Center

**A letter of affirmation from an individual with relevant expertise:**

[MIT-Innovation\\_Credit.docx](#)

**Which of the following STARS subcategories does the innovation most closely relate to? (Select all that apply up to a maximum of five):**

	Yes or No
Curriculum	No

<b>Research</b>	No
<b>Campus Engagement</b>	Yes
<b>Public Engagement</b>	Yes
<b>Air &amp; Climate</b>	Yes
<b>Buildings</b>	No
<b>Dining Services</b>	No
<b>Energy</b>	Yes
<b>Grounds</b>	No
<b>Purchasing</b>	No
<b>Transportation</b>	No
<b>Waste</b>	No
<b>Water</b>	No
<b>Coordination, Planning &amp; Governance</b>	Yes
<b>Diversity &amp; Affordability</b>	No
<b>Health, Wellbeing &amp; Work</b>	No
<b>Investment</b>	No

**Other topic(s) that the innovation relates to that are not listed above:**

Student run organization

**The website URL where information about the innovation is available:**

<http://cep.mit.edu/>

### Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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### Criteria

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**Title or keywords related to the innovative policy, practice, program, or outcome:**

Campus Sustainability Undergraduate Research Opportunity (UROP)

**A brief description of the innovative policy, practice, program, or outcome:**

Conduct undergraduate research that can impact changes in energy use on the MIT campus. Campus Sustainability UROPs are offered in partnership with the Sustainability Office and MITEI Education Office and give undergraduates a chance to be involved in research while also contributing to programs that reduce the energy and resource footprint of the MIT campus. Funding is provided for students to work with both a faculty supervisor and an operations advisor on a project that examines energy use, energy production, water use, resource use, recycling, transportation or any of a variety of campus sustainability topics. This program was the first formal program to integrate campus sustainability research into MIT's prized UROP program, which places undergraduates in research roles that are worthy of academic credit. The program boasts both a faculty and staff research advisor to direct research that enhances MIT's knowledge of campus sustainability.

**A brief description of any positive measurable outcomes associated with the innovation (if not reported above):**

Campus Sustainability UROPs have provided an enriching gateway for student research on campus sustainability issues, often research that leads them to a long term engagement with the topic on campus in both curricular and extra curricular activities. Several UROPs have formed the research basis for several institute programs on campus including a behavior awareness campaign with tested strategies; an eco-rep program; student engagement ideas competition, and many others.

**A letter of affirmation from an individual with relevant expertise:**

[MIT-Innovation\\_Credit.docx](#)

**Which of the following STARS subcategories does the innovation most closely relate to? (Select all that apply up to a maximum of five):**

	Yes or No
Curriculum	Yes
Research	Yes
Campus Engagement	---
Public Engagement	---
Air & Climate	---
Buildings	---

Dining Services	---
Energy	---
Grounds	---
Purchasing	---
Transportation	---
Waste	---
Water	---
Coordination, Planning & Governance	Yes
Diversity & Affordability	---
Health, Wellbeing & Work	---
Investment	---

**Other topic(s) that the innovation relates to that are not listed above:**

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**The website URL where information about the innovation is available:**

<http://mitei.mit.edu/campus-energy/get-involved>

### Responsible Party

**Steven Lanou**

Deputy Director of Sustainability  
Office of Sustainability

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**Title or keywords related to the innovative policy, practice, program, or outcome:**

MIT Clockworks Building Energy Dashboard

**A brief description of the innovative policy, practice, program, or outcome:**

MIT Clockworks Building Energy Dashboard was designed from the bottom-up to serve our repair and maintenance staff through a state of the art building continuous-commissioning system that provides real-time system fault detection to alert building managers of potential energy waste due to system problems. The system also provides a community-oriented energy dashboard showing energy use for most of MIT's buildings.

**A brief description of any positive measurable outcomes associated with the innovation (if not reported above):**

The dashboard forms the nucleus of MIT's continuous building commissioning program. The system has highlighted \$100s of thousands of dollars of energy savings opportunities due to the identification of building operating systems failures that typically would go un-noticed. The system calculates the potential energy loss costs and allows for more advanced cost/benefit analysis.

**A letter of affirmation from an individual with relevant expertise:**

[MIT-Innovation\\_Credit.docx](#)

**Which of the following STARS subcategories does the innovation most closely relate to? (Select all that apply up to a maximum of five):**

	Yes or No
Curriculum	No
Research	No
Campus Engagement	Yes
Public Engagement	No
Air & Climate	No
Buildings	Yes
Dining Services	No
Energy	Yes

<b>Grounds</b>	No
<b>Purchasing</b>	No
<b>Transportation</b>	No
<b>Waste</b>	No
<b>Water</b>	No
<b>Coordination, Planning &amp; Governance</b>	No
<b>Diversity &amp; Affordability</b>	No
<b>Health, Wellbeing &amp; Work</b>	No
<b>Investment</b>	No

**Other topic(s) that the innovation relates to that are not listed above:**

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**The website URL where information about the innovation is available:**

<https://sustainability.mit.edu/living-lab>