

[The Status of Undergraduate Women at MIT](#)

2016 February

Recommendations (pp. 37-41)

Overall implementation score: 43%

Implementation score per item

Recommendation: 1.1 Require that students and departmental advisors meet at least twice per semester to promote the discussion of topics outside of academics.

Status: Not implemented. 0

Additional info: This will encourage professors to build relationships and check in with their students throughout the semester. Professors will also have more opportunities to point students to useful resources and to offer networking advice based on their advisees' interests.

Recommendation: 1.2 Create an online platform for advisor evaluations, similar to the current course evaluations website, where students provide feedback on their advising experience.

Status: Not implemented for undergraduates. (Graduate students can now evaluate their RA or thesis supervisor.) 0

Additional info: Students writing an evaluation would choose whether to have their demographic information anonymous to both students and professors, or just professors. This will provide students with more information in choosing department advisors that are best suited for their needs. This program could be piloted in the Department of Electrical Engineering and Computer Science (EECS) using a similar platform to HKN's undergraduate guide, or implemented institute-wide by the Dean for Undergraduate Education (DUE).

Recommendation:	1.3	Each department should have funds dedicated for social group events, such as dinners, between advisors and advisees. These events can help facilitate discussions between advisors and advisees.	
Status:		Some departments have these, many do not.	0.5
Recommendation:	1.4	Each department should have a Piazza forum, similar to the EECS academic advising Piazza page.	
Status:		Not implemented beyond EECS.	0
Additional info:		Having a public forum would allow students to freely ask questions and read previous responses, while also taking some of the burden off from advisors, who often answer these questions individually. The EECS Piazza forum has already been popular amongst students, with over 500 posts in 6 months.	
Recommendation:	2	Offer workshops for students throughout the academic year that address differences in technical experience among incoming freshmen.	
Status:		Not implemented.	0

Additional info:

Academics and Leadership: Section Three shows that many male students come to MIT with prior experience in programming, business, and building machines. This difference in prior experience can cause psychological barriers for students who have not seen this material when taking introductory classes, as the content is not new to many of their peers. To level the playing field, we recommend having short-term workshops available for all students throughout the academic year, especially during the fall semester. These workshops would take place over the course of several days, and would be aimed at introducing students to concepts many of their peers may have seen in high school. Potential topics could include “Fundamentals of Java,” “Western Blot Basics,” and “Introduction to SolidWorks.” The New Student Survey, administered to the incoming class every two years, could be used to gauge the backgrounds and needs of the student population. The MIT Division of Student Life, First-Year Experience (FYE) can oversee these workshops in collaboration with relevant student groups, such as MIT Design for America (DFA) and MITREs, with a trial of two workshops in Fall 2016.

Recommendation: 3 Develop bias training for all faculty, administrators, and teaching assistants.

Status: The ICEO and others have offered such workshops, but very few faculty, administrators, or teaching assistants have participated. 0.25

Additional info: As described in Environment: Section Four, students have heard insensitive remarks from community members who are expected to teach or guide them. These comments affect confidence and are not conducive to building positive relationships between students and educators. Furthermore, the existence of a similar recommendation proposed by the Black Students' Union at MIT, "Online diversity training to be completed after an undergraduate student's second year...", supports the demand for bias training on campus.

The Institute Community and Equity Officer, in conjunction with the Teaching and Learning Lab, should develop online training programs for members of the MIT community to promote a culture of sensitivity regarding gender and diversity issues. Faculty, administrators, and teaching assistants should be familiarized with research findings on evaluation bias, work-life issues, and gender schemas. Upon being hired, they should be expected to attend trainings based on this literature and taught how to approach different sensitive situations. Faculty and administrators would also be expected to attend at least one diversity workshop each year. The purpose of these trainings would be to help educators identify and reduce systematic forms of discrimination at MIT. This program would be piloted for the faculty in one department for one year, after which the program would be evaluated and expanded to other departments.

Recommendation: 4 Offer interdisciplinary and flexible majors designed for students whose academic and career goals demand greater breadth.

Status: Several interdisciplinary majors have been added since 2015.

Additional info: Academics and Leadership: Section One, shows that there has been an increase in the number of women majoring in traditionally male-dominated fields upon the addition of flexible majors. Thus, we recommend creating interdisciplinary majors in every department designed for students who wish to develop a strong foundation in one area but to also have the ability to explore other disciplines. These should be structured similarly to 2-A or 8-Flexible so that students can choose to major in any course and concentrate in another. One possible future major includes the medical track in EECS, 6-Medical, as proposed in 2013.

Recommendation: 5 Create a program to connect alumni and graduate students with undergraduates.

Status: Undergraduate women can connect with alumni via the Hub, <https://alumniadvisors.mit.edu/>. Another program connected undergraduate and graduate women, graduate women via <https://studentlife.mit.edu/impact-opportunities/diversity-inclusion/womenmit/events-programs/undergrad-grad-mentoring> Current matching is focused on careers and entrepreneurship. 0.75

Additional info:

Many students benefit from having a mentor in their field, especially if the mentor is knowledgeable in the opportunities available at MIT. Although there exist a number of alumni-undergraduate mentorship programs, including the Institute Career Assistance Network and the Community Catalyst Leadership Program, many of these opportunities are not well-known among undergraduates at MIT. Additionally, when undergraduates contact graduate students, they are typically looking for research opportunities rather than mentorship opportunities. At focus groups many female students spoke about the need for more role models. Since structured programs are popular amongst females at MIT, as shown in Environment: Section Three, lowering the barrier to find mentors can help address the necessity for more role models for women.

The MIT Alumni Association should expand existing programs, and strengthen efforts to publicize these mentorship opportunities to both students and alumni. Many of the current programs focus on mentorship with regards to career. These programs should be developed to include guidance to undergraduates in leadership, wellness, or different academic fields. This program can be implemented through an online platform where alumni and graduate students can sign up and list areas of interest and expertise, such as “Negotiation,” “Stress Management,” “Product Design,” or “Entrepreneurship.” Undergraduates would be able to search for possible mentors who have relevant experience and contact them through the platform.

Recommendation: 6 Offer more classes with a focus on health, education, and environment.

Status: During 2017-18, at least 13 undergraduate subjects were offered in health-related areas (including the new 20.213 Genome Stability & Engineering in the Context of Diseases, Drugs, and Public Health) , 5 in education (including the new CMS.595 Learning, Media and Technology), and 13 in environment (e.g. 2.982: Ecology and Sustainability of Coastal Ecosystems). 1

Additional info: It is important to offer classes that align with students' interests. Females on average respect leaders in public service more than CEOs or entrepreneurs, as discussed in Academics and Leadership: Section Five. We therefore recommend offering more classes that focus on applications to healthcare, education, or other public service sectors. For example, D-Lab classes, which use engineering to tackle a broad range of global poverty issues, have been very successful at attracting female engineers.

Recommendation: 7 Create a program for students to get mentorship and funding to pursue entrepreneurial activities.

Status: Not implemented. 0

Additional info: Interest in starting businesses decreases from freshman to senior year, as shown in Confidence and Stress: Section Two. To help retain enthusiasm for entrepreneurship, UAAP should develop a program, modeled after the Undergraduate Research Opportunities Program, focused on encouraging students to work on an independent project. Students would contact a professor or graduate student to supervise them and be compensated hourly for their work. Since females are more likely to stress about their financial future and spend more hours working for pay, it is important that monetary incentives be part of the program.

Recommendation: 8 Provide more opportunities to lead class discussions in TEAL and CI-H classes.

Status:	Not systematically implemented; some faculty discussions underway on how to enhance leadership development in these subjects.	0
Additional info:	<p>Academics and Leadership: Section Four describes how females feel less comfortable leading class discussions. By offering more opportunities for students to lead in the classroom, students would gain experience and confidence.</p> <p>In order to promote a culture of engaged learning in MIT's classrooms, students in TEAL and CI-H classes should be required to lead a discussion in at least one class over the course of a semester. In TEAL classes, this would involve the student leader presenting their group's solution to the TA or professor. Similarly, in CI-H classes, the student leader would ask questions based on the class's readings and facilitate discussion.</p>	
Recommendation:	9 Showcase professors outside of their research.	
Status:	The Chancellor's office, DSL, GSC, and other offices have done many such events in the last two years, for example http://news.mit.edu/2017/tea-with-teachers-students-interview-professors-1222	1
Additional info:	<p>Environment: Section Four highlights the disconnect between students and professors. Most students only see their professors in an academic context. To address this, we recommend that MIT Tech TV create an online platform that contains interviews of professors discussing their lives outside of academia, including their failures, hobbies, and experiences as students. This would allow professors to be more accessible and relatable. A different professor could be interviewed each month, and eventually students would be able to vote for which professor they would like to see be interviewed. To supplement the online interviews, The Tech, MIT's student newspaper, can feature a Question and Answer column for professors to respond to questions submitted by students at MIT.</p>	

Recommendation:	10	Increase the number of questions in Institute surveys that focus on diversity and inclusion.	
Status:		Done. Several new questions were added to the 2017 Student Quality of Life Survey.	1
Additional info:		This report encourages the MIT Office of Institutional Research and the MIT Office of the Registrar to conduct further analysis to confirm or rebuffer our findings. These offices should include additional questions in their surveys regarding diversity and inclusion within living groups and classroom settings.	
Recommendation:	11	Strengthen efforts to recruit and retain female faculty.	
Status:		In the absence of coordinated or systematic efforts, the only way to measure this is by recruitment outcomes. In AY2016 the number of female faculty dropped. In AY2017 it increased.	0.5
Additional info:		Environment: Section Four illustrates the effect of the lack of female faculty on the confidence of female students. To address this issue we encourage MIT department heads to continue strengthening efforts to hire more female faculty. This is the first recommendation in the 2011 Report on the Status of Women Faculty in the Schools of Science and Engineering at MIT, Recommendations to Ensure Equity section, as well as the first priority recommendation to promote equity in the 2015 report on Advancing a Respectful and Caring Community. It is clear that implementing this recommendation will have a far-reaching impact across MIT's campus.	