

Formation and Launch of the MIT Task Force on the Undergraduate Academic Program

February 27, 2024

Mary C. Fuller, Chair of the Faculty | **Ian A. Waitz**, Vice Chancellor for Undergraduate and Graduate Education

Dear colleagues,

We are delighted to announce the formation and launch of the Task Force on the MIT Undergraduate Academic Program.

This fulfills a critical recommendation of the Task Force 2021 and Beyond RIC1 (Undergraduate Program) and will build on reports prepared by several foundational working groups, some focused on the current GIRs and others updating recent studies for the purposes of this review.

The Task Force will consider all aspects of the undergraduate academic program as areas for potential improvement and revision. Its mandate extends to both curriculum and pedagogy and will encompass the GIRs in Science, Math & Engineering and Humanities, Arts & Social Sciences, as well as experiential learning.

The Task Force membership and full charge can be found below our signatures and online.

In light of the continued rise of remote and hybrid learning, the rapid expansion of generative AI, and the urgency of tackling issues such as climate change, this effort is as timely as it is ambitious.

Thanks to the work of numerous past committees and foundational working groups, the work of the Task Force is already underway. Opportunities for input and engagement by MIT community members will be forthcoming – and frequent.

We look forward to your support and guidance in creating the future of a rigorous, dynamic, and best-in-class MIT undergraduate education.

Sincerely,

Mary C. Fuller
Chair of the MIT Faculty and Professor, Literature

Ian A. Waitz
Vice Chancellor for Undergraduate and Graduate Education and Jerome C.
Hunsaker Professor of Aeronautics and Astronautics

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Task Force Membership

- Adam Martin, co-chair, School of Science
- Joel Voldman, co-chair, School of Engineering
- Kate Weishaar, staff, Office of the Vice Chancellor
- Esther Duflo, School of Humanities, Arts and Social Sciences
- Jeff Grossman, School of Engineering / Schwarzman College of Computing
- Isaac Lock, junior, Course 20 & Course 24-1
- Bill Minicozzi, School of Science, CUP
- Caitlin Ogoe, junior, Course 6-9
- Janet Rankin, Teaching + Learning Lab
- Skylar Tibbits, School of Architecture and Planning
- Lily Tsai, School of Humanities, Arts and Social Sciences
- Maria Yang, School of Engineering
- Karen Zheng, Sloan School of Management

Click [here](#) to see a recent addition to the membership.

Charge to the Task Force on the Undergraduate Academic Program

This Task Force responds to two different but overlapping needs: First, the need for a comprehensive regular review of our undergraduate educational program; this need was well articulated 18 years ago by the Task Force on the Educational Commons (2006). Second, the need to educate future generations of leaders, problem solvers, and citizens so that they are prepared and enabled to invent a future that will enhance human life and the life of the planet.

The Task Force will consider all aspects of the undergraduate academic program as areas for potential improvement and revision. Its mandate extends to both curriculum and pedagogy and will encompass both the SME and

HASS General Institute Requirements* (GIRs) as well as experiential learning. (Areas such as advising and the education of learners outside of MIT should not be considered to be within the scope of the Task Force). Any future vision or proposal will need to embody both changing needs and the enduring, core values that underlie our rigorous educational programs. We will also look to this Task Force and the process of review for lessons that will help us to create an effective template for future educational review and adaptation, including parameters for educational experiments that will enable us to innovate and advance as part of an ongoing change process.

Preparatory work for this review will be undertaken by several Foundational Working Groups that have been charged to report on aspects of the current degree requirements, aspects of current educational policy, and a few additional areas of learning or investigation.** Informed by these reports, the Task Force should also conduct broad outreach to the MIT community to understand the challenges and opportunities for our residential program and to engage the community in this project.

Through its engagement with the MIT community, the Task Force will seek to understand the kinds of preparation our graduates need. Beyond MIT, the Task Force should also consider how our students are being prepared in K-12 education, investigate curricula, requirements, and structures at peer or similar institutions, and incorporate the findings of relevant external studies.

While the Task Force may arrive at its own recommendations and vision, one aspect of its work should be to solicit and evaluate short proposals by individuals or groups within the MIT community, whether for limited or more sweeping changes. The Task Force may wish to request further development of especially promising proposals or to confer with their authors.

Any vision, in order to be implemented, requires consensus. The consensus of the faculty may extend to a modest revision of our educational programs, or it may extend to something more expansive; we would encourage the Task Force to consider both what is achievable and what is imaginable and to engage in ongoing dialogue with the faculty and the broader MIT community as potential recommendations take shape. While a compelling unified vision may emerge, the Task Force may also wish to provide a choice of pathways or a multi-part, phased proposal. The Task Force should also consider mechanisms that would enable limited educational experiments and innovations for assessment and, potentially, broader adoption as appropriate.

Proposals by the Task Force for changes in the undergraduate requirements will be considered by the appropriate committees of Faculty Governance for their consideration; to expedite the process, we recommend regular interaction between the Task Force and both CUP and FPC as these proposals are being drafted. The Task Force report may include proposals for motions to amend the Rules and Regulations of the Faculty if needed for implementation of its recommendations.

*The principal aims of the General Institute Requirements might be stated as the provision of:

- Foundational Building Blocks: The GIRs provide a common body of knowledge that faculty can then assume in teaching advanced subjects.
- Literacy in Essential Fields: The GIRs provide substantive knowledge in areas with which every MIT graduate should have familiarity.
- Methods for Creative Analytical Thinking: The GIRs teach modes of thinking and provide portable (transferable) tools, skills, and general strategies for formulating, analyzing, and solving problems.

While these are the principal aims of the MIT General Institute Requirements, the specific subjects and experiences in the undergraduate program that may best achieve these aims have evolved over time. The background, interests, and expectations of our undergraduate students have changed in recent years, as have the fields they will enter, and both pedagogy and the technology available for delivering educational experiences have evolved in important ways.

** Three of the Foundational Working Groups will focus respectively on the current state of the SME (science-math-engineering) and HASS (humanities-arts-social sciences) components of the GIRs and the Communication Requirement; these reports will be prepared by the committees charged with overseeing these three requirements. Further foundational work will be provided through three recent reports reviewed and updated as necessary for the purposes of the Task Force: the reports on Computational Thinking, Social Equity and Civic Responsibility (RIC2), and Lessons from Online Learning. Finally, the Committee on the Undergraduate Program has been asked to prepare a report on policies that shape the current undergraduate program.

Addendum to Enclosure F: Since the initial launch of the Task Force on the Undergraduate Program, the list of members has been updated to include Professor Rob Miller, Schwarzman College of Computing.