Call for White Papers

Task Force on the Undergraduate Academic Program

Introduction

How do we lay a foundation for an MIT education of the 21st century? For more than a hundred years, MIT has been unrivaled in the public's imagination as the place where the brightest students go to dream up – and achieve – the seemingly impossible. MIT students solve the problems of today and tomorrow. They see possibilities where others cannot. They care about the world. They care about community. Our motto is *mens et manus* – mind and hand, bringing theory together with practice. At MIT, the idea is always that students will take their education and go and do something extraordinary with it.

MIT is also a place of educational innovation, including the shift to a more science-driven approach to engineering starting in the 1930s, the formation of SHASS following the Lewis Report in 1949, UROP in 1969, IAP in 1971, OpenCourseWare, and MITx in the 21st century. We have another opportunity now to reimagine the undergraduate educational experience for today and tomorrow.

The Task Force (TFUAP), informed by a broad set of conversations, reports, and data, and after refinement, has released a set of learning and process goals for the MIT undergraduate educational experience. Now comes the exciting (but hard!) part – developing an academic program that meets those goals in our uniquely MIT way. To do this, we need to build on the collective wisdom of the MIT community because excellent ideas are distributed broadly within our community.

With this call, we invite individuals and groups in the MIT community to submit white papers with their suggestions for the MIT undergraduate academic program. Note that advising is not part of our call. While some of these goals will certainly also involve advising, focus on how the academic program would reinforce benefits from proper advising. In the course of Spring 2025, we will use these white papers to inform the design (or multiple designs) of an undergraduate academic experience, which we will then share with the community.

Overall Guidelines

Here are the primary specifications for the white papers:

1. Each white paper should address at least one learning/process goal (see Appendix A for a list of goals and the full Phase 1 report for further explanations). Please note which goal(s) your white paper addresses and how. If the white paper addresses only some aspects of a

particular goal, please note that as well. If possible, note how you would determine whether your proposed design was successful in achieving the goal(s).

2. We especially welcome and encourage white papers that address multiple learning/process goals in an integrated manner (in contrast to treating each goal in isolation). For example, a white paper might propose a class that combines technical ways of thinking (part of learning goal 2) with evaluating texts and artistic production from the past and present (part of learning goal 3).

3. White papers are due by 11:59 pm on February 3 and can be submitted via [this Google form](#).

4. We plan to post white papers on our [website](#). If you prefer, we can post your white paper anonymously (not attributed to a person or group) or keep it confidential (not posted at all). If so, please specify.

5. We provide optional templates below, though any format is fine. We welcome non-written formats as well; please reach out to us for guidelines if you intend to submit a non-written proposal.

6. Keep it succinct. While there is no minimum or maximum length, we ask that you attempt to balance brevity and completeness.

7. We welcome submissions from anyone in the MIT community: students, staff, faculty, and alumni. Good ideas come from everywhere!

8. We welcome submissions from individuals or groups. If you'd like help connecting with someone in a particular discipline or help forming a group, please email tfuap@mit.edu and we are available to help.

9. We may contact you after we review your submission for additional details and/or to connect you to similar proposals to further develop ideas.

10. Address potential tradeoffs between goals in your white paper. For example, if you are proposing many required classes, how might that affect learning goal 1 or process goal 2?

11. Discuss implementation and sustainability as well. What would be a viable approach/process to implement the ideas? What resources would be needed? What obstacles might exist? How might we overcome these obstacles? We will be considering the overall simplicity of the design and the feasibility of implementation.

Please contact us at tfuap@mit.edu if you have any other questions.

Optional Templates

Below we provide four templates you can use if you find them helpful, depending on whether you are proposing a:

- Curriculum: a constellation of classes and other curricular/co-curricular experiences, policies, etc. that aim to address many or all the goals. Our existing collection of HASS and SME GIRs, along with the relevant policies, is an example of a curriculum.

- Class/experience: a curricular subject or co-curricular experience that aims to address one or more goals.

- Pedagogy: a way of teaching that may address one or more goals. TEAL and project-based learning include examples of pedagogy.

- Policy: an MIT-wide policy to address one or more goals. For example, "no classes during 5-7p" is a policy related to the academic experience.

Curriculum

Curricular ideas may reenvision the entire four-year experience but may also include curricular proposals that are meant to serve a smaller cohort or subset of the undergraduate population with a particular interest. They could also be components that concern a certain period of time (e.g. first year, senior year, etc), or certain subject areas. Programs may serve as one of multiple student options to meet required learning goals.

1. Briefly describe the overall vision and format of the (partial or whole) curriculum. Consider how you might describe this curriculum to a prospective student or first-year student who is wondering why the various parts of the curriculum are important.

2. Describe the curricular experiences and how they address the various goals. These experiences may take the form of classes, categories of classes, educational experiences, pedagogy, policies, etc.

   a. Briefly explain why each of these should be included, noting which goal(s) each addresses

   b. Note which classes/experiences already exist in some form at MIT and which would need to be developed

3. Note parts of the curriculum that will be incorporated into the majors (such as our current communication requirement).

4. Note any considerations that could affect the success of this curriculum. Describe any pitfalls you foresee and how you might address them.

5. Set priorities: Is there a "minimum viable" version of your curriculum? Are some elements "must-have" versus "should-have" versus "nice-to-have"?

Class/Experience

1. Briefly describe the content and format.

2. Identify the learning and/or process goal(s) addressed.

3. List the types of assignments and assessments students would be expected to complete.

4. If relevant, identify one or more existing classes or co-curricular experiences at MIT or another institution that could inform this design.

Pedagogy

1. Briefly describe the proposed pedagogical strategy and how particular classroom practices and learning activities associated with that strategy can advance specific learning or process goals.

2. If applicable, please provide specific examples of how this strategy has been used effectively at MIT or elsewhere. Note that these examples can be drawn from a range of scales and scopes.

3. How would you implement this strategy at MIT?

4. In addition to highlighting the strengths of the proposed pedagogy, please note any weaknesses and address any anticipated critiques. For example, are there goals that this pedagogy does not support?

Policy

Related to calendar, grading, etc.

1. Briefly explain the policy and how it relates to particular learning or process goals.

   a. Is this entirely new or does it replace an existing policy?

   b. Who "owns" the policy (faculty governance, Registrar's Office, individual departments, etc.)?

   c. How is the policy enforced and by whom?

2. Describe the variables that may impact implementation.

IAP Workshops for Proposers

TFUAP will hold a series of workshops in January to help guide individuals or groups interested in developing white papers. These relatively free-form events can be used to form groups, ask questions about intent or details of individual learning/process goals, or workshop ideas. To receive more information about these sessions or indicate your interest in attending, please [complete this brief form](#).

TFUAP-run workshops will be general in focus. If you or your group would like to host a workshop on a particular topic or set of goals, please email tfuap@mit.edu and we will add your workshop to the sign-up form.

What's Next

After we collect all the white papers, we will spend time in Spring 2025 discussing them within TFUAP. We may contact white paper authors for additional information or suggest that certain groups get together to see if their ideas can be integrated.

Currently, we hope to synthesize overall designs that address every learning and process goal included in the Phase One report. If this is not possible, TFUAP may determine whether a particular goal or part of a goal should be adjusted.

Ultimately, the white papers will inform the design (or multiple designs) of an undergraduate academic program that we will then share with the community.

Appendix A: Learning and Process Goals

Learning Goals

1. Every MIT graduate will know strategies for managing their time, advocating for and taking care of themselves, and finding fulfillment and belonging in their academic/professional pursuits and personal life.

2. Every MIT graduate will be equipped to define and solve problems using fundamental technical ways of thinking, including mathematical, computational, and scientific. Every MIT graduate will share a common base of technical understanding.

3. Every MIT graduate will be able to critically analyze their values and their responsibility to other people and the planet and articulate reasons for their choices. They will understand relationships between individuals and society. Graduates will also know how to gather

evidence from, interpret, and make arguments about events, texts, and artistic production from the past and present.

4. Every MIT graduate will be able to work collaboratively in teams, give and receive productive feedback, and take on leadership roles.

5. Every MIT graduate will be able to effectively develop and revise written, oral, and visual communication to articulate their ideas, claims, and arguments to a range of audiences. They will be able to actively listen to and engage with others whose perspectives differ from their own.

6. Every MIT graduate will be a critical reader, thinker, and listener who carefully examines assumptions, data, information, and ideas, before formulating an opinion or proposing a solution.

7. Every MIT graduate will have the knowledge and skills to become a leading member and help advance the state of the art in their chosen field of study.

8. Every MIT graduate will be able to apply their knowledge and skills to solve real-world challenges. They will be able to ask insightful questions and have the flexibility to creatively address problems from a variety of contexts, even those different from their chosen field of study.

9. Every MIT graduate will be a curious, life-long learner, able to learn effectively in academic and non-academic contexts.

10. Every MIT graduate will be empowered to dream big. They will have the capacity to draw on their creativity to imagine, design, or build transformative future worlds that better serve humankind.

Process Goals

For all students, the MIT academic experience will:

1. Build & strengthen community, and support academic & social belonging

2. Support wellbeing

3. Include experiential learning and physical making/breaking

4. Celebrate unique passions, creativity, joy of learning, and sense of wonder

5. Provide meaningful mentoring relationships