



Proposing a New Undergraduate Degree Program
to the
MIT Faculty and Its Standing Committees

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Background

Consistent with the [guidelines for approval of undergraduate degree programs](#), which were voted into place by the MIT Faculty in May 2003, the review of a new undergraduate degree program is a multi-committee process. The primary committees involved are the [Subcommittee on the Communication Requirement](#) (SOCR), the [Committee on the Undergraduate Program](#) (CUP), and the [Committee on Curricula](#) (CoC).

Preliminary drafts are encouraged, particularly for proposals involving interdisciplinary and joint programs or proposals that raise questions concerning *Rules and Regulations of the Faculty* and/or other existing policy governing the undergraduate program. Proposals should not be submitted in final form until they have been vetted by the appropriate School and departmental curriculum committees.

On the proposal form, you will be asked to provide basic information about the degree program (the rationale for establishing it, anticipated demand for the degree, other programs that may be affected by the program), a description of the curriculum (its structure and coherence, required and recommended subjects offered by other programs, programs with which there is substantial overlap, a degree chart, roadmaps for completion (from varying points of entry), and answers to specific questions that pertain to each review committee's area of responsibility. The form also explains the requirements concerning letters of support that must accompany the proposal.

The degree program approval process is iterative and somewhat fluid so that, with agreement among the reviewing committees, some discussions and considerations may move forward simultaneously. Proposals are not normally approved by SOCR, CUP, and CoC at the same meeting at which they are initially presented and discussed. Instead, the proposals may be discussed across several meetings both in the presence of the proposers and in committee. The committees may also refer specific elements of a proposal to other entities for consideration and feedback.

Each committee focuses on different aspects of the proposal. In completing this form, please note that some sections are required by all review committees and others by some smaller set.

- SOCR is responsible for ensuring that each undergraduate degree program has appropriate communication-intensive subjects in the major (CI-M), as specified by the Institute's undergraduate Communication Requirement.
- The CUP's review focuses primarily on administrative infrastructure, policy, and governance and oversight issues.

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- The CoC's review focuses primarily on the curriculum, including the educational rationale, the sustainability and structure of the program, and its compliance with existing policy and rules.
- The FPC's review focuses on the process followed, any issues that are brought to its attention, and scheduling the item for consideration at a Faculty Meeting.

Proposals for a new degree type or for a new degree program that couples an undergraduate degree and a graduate degree follow a different review sequence. In these cases, the FPC and CUP review precedes CoC review. In the case of a combined undergraduate/graduate program, the Committee on Graduate Programs (CGP) must also indicate its approval.

The following chart illustrates the process for the review of new undergraduate degree programs.

Approval Process for Undergraduate Degree Programs

Step	Process	Review Body	Typical Timeline
1.	Approval of program of communication-intensive subjects in the major (CI-Ms)	Subcommittee on the Communication Requirement (SOCR)	October / November
2.	Approval of the administration and governance of the program, including advising and resources	Committee on the Undergraduate Program (CUP)	Follows SOCR approval, normally in November / December.
3.	Approval of the proposed curriculum	Committee on Curricula (CoC)	Follows CUP approval, normally in December / IAP.
4.	Approval for presentation to the Faculty	Faculty Policy Committee (FPC)	Follows CoC approval.
5.	Presentation and vote by the Faculty	MIT Faculty	Meets on the third Wednesday of the month during the academic year. ¹ Motions to establish new degree programs are presented and held over to the next month for a vote. Programs must have Faculty approval before May to be offered in the following academic year. ²
6.	Forwarded to the MIT Corporation for final approval	MIT Corporation	

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* See <http://committees.mit.edu/> for individual committee and staff contacts.

¹ September through May, excluding January.

² Approval requires a majority vote, with a minimum of 30 faculty members in attendance and voting.

Guidelines for Degree Charts

Summary of General Institute Requirements

The first section of the degree chart must summarize the General Institute Requirements (GIRs). Any items in the departmental program that also fulfill a GIR must be expressly identified here. Below is a sample GIR section from Course 9.

General Institute Requirements (GIRs)	Subjects
Science Requirement	6
Humanities, Arts, and Social Sciences Requirement [three subjects can be satisfied by 9.00 and two other HASS subjects in the Departmental Program]	8
Restricted Electives in Science and Technology (REST) Requirement [one subject can be satisfied by 9.01 in the Departmental Program]	2
Laboratory Requirement [can be satisfied by a laboratory in the Departmental Program]	1
Total GIR Subjects Required for SB Degree	17
Communication Requirement	
The program includes a Communication Requirement of 4 subjects: 2 subjects designated as Communication Intensive in Humanities, Arts, and Social Sciences (CI-H); and 2 subjects designated as Communication Intensive in the Major (CI-M).	

Summary of Departmental Requirements

Departmental requirements follow immediately after the GIR summary; they must be introduced by the following statement, formatted as shown:

PLUS Departmental Program

Subject names are followed by credit units and by prerequisites, if any (corequisites in italics).

This section of the degree chart must clearly identify the structure of the program and the options within it. If the program is divided into subsections, each subsection heading should be highlighted in bold and should show the units of coursework that must be completed for that subsection. Express units as a range where appropriate. Examples:

Required Subjects [List subjects after subheading]	36
Restricted Electives [List subjects after subheading]	21-24

In listing subjects on a degree chart for committee review³, each subject must show a number, title, total units of credit, GIR attribute (if applicable), and prerequisites and corequisites (if applicable). The following guidelines also apply:

- List only one number for a joint subject.
- Format corequisites in italics.
- Use an asterisk to denote situations in which alternate prerequisites are available for a subject.

³ Subjects are displayed differently in the published catalog.

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- Use standard format rather than subject numbers to describe subjects in the Science Core that are prerequisites. Those formats are: Biology (GIR), Calculus I (GIR), Calculus II (GIR), Chemistry (GIR), Physics I (GIR), and Physics II (GIR).
- Identify a minimum of two CI-M subjects in the degree chart.

Sample subject entries:

- 2.009** The Product Engineering Process, 12, CI-M; 2.001, 2.003J, 2.005; 2.670*; senior standing or permission of instructor
- 3.053J** Molecular, Cellular, and Tissue Biomechanics, 12; 18.03*, Biology (GIR), 2.370*
- 4.605** Introduction to the Theory and History of Architecture, 12, HASS-A
- 5.12** Organic Chemistry I, 12, REST; Chemistry (GIR)
- 8.13** Experimental Physics I, 18, LAB, CI-M; 8.04
- 8.223** Classical Mechanics II, 6; Physics I (GIR), Calculus II (GIR)
- 18.03** Differential Equations, 12, REST; *Calculus II (GIR)*
- 18.062J** Mathematics for Computer Science, 12, REST; Calculus I (GIR)
- 21H.931** Seminar in Historical Methods, 12, CI-M, HASS-H
- 24.900** Introduction to Linguistics, 12, HASS-S, CI-H

Choices between subjects may be designated in any of several ways. The most common are:

As a choice between subjects, for example:

12.110 Sedimentary Geology, 12; 12.001

or

12.119 Analytical Techniques for Studying Environmental and Geologic Samples, 12, LAB

As a choice from a list, for example:

Select one of the following:

3.016 Mathematical Methods for Materials Scientists and Engineers, 12; Calculus II (GIR)

18.03 Differential Equations, 12; Calculus II (GIR)

18.034 Differential Equations, 12; Calculus II (GIR)

As a statement with a list of numbers, for example:

To satisfy the requirement that students take two CI-M subjects, students must take 24.260 *and* one of the following: 24.120, 24.201, 24.221, 24.231, 24.251, or 24.263.

As a statement that identifies requirements by area, for example:

Three additional subjects as specified in one of the following concentrations: Finance, Information Technologies, Marketing Science, Operations Research.

At the end of the departmental requirements, the chart must indicate the units of credit that also satisfy the GIRs, which are subtracted from the total number of units in the program, and the units of credit for Unrestricted Electives (minimum of 48 required). Each program must then summarize the total units in the program, which should be expressed in a range if appropriate. The minimum number of “units beyond” is 180; the maximum allowed is 198.

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Departmental Program units that also satisfy the GIRs	(36)
Unrestricted Electives	48
Total Units Beyond the GIRs Required for the SB Degree	183-198

No subject can be counted both as part of the 17-subject GIRs and as part of the 183-198 units beyond the GIRs. Every subject in the student's departmental program will count toward one or the other, but not both.

Miscellaneous Statements and Footnotes

If the asterisk is used to denote alternate prerequisites in the degree chart, the following must appear:

Notes

*Alternate prerequisites are listed in the subject description.

Other notes about the program may be inserted at the discretion of the department and/or the Committee on Curricula.

Roadmaps: Sample Layout

Roadmaps may include up to 8.5 subjects per year. A maximum of 12 units of required coursework may be available only during IAP, but programs must provide contingencies to ensure that a student’s program is not disrupted by circumstances beyond his or her control.

Six-unit subjects are counted as half-subjects; subjects of 9 – 15 units are counted as one subject; 18-unit subjects count as 1.5 subjects; and subjects of 21 – 24 units count as 2 subjects. The roadmaps must show at least 48 units of unrestricted electives, 12 of which should fall in the freshman year. Program requirements must include 180 (minimum) to 198 (maximum) units beyond the GIRs.

Below is a sample layout for a typical roadmap; GIR subjects are highlighted in red. Roadmaps must be provided for first-term sophomores, second-term sophomores, and first-term juniors.

	Fall	IAP	Spring
Year 1	Physics I 12		Physics II 12
	Chemistry 12		Calculus 12
	Calculus 12		HASS 12
	HASS (CI-H/CI-HW) 12		Elective 12
	# subjects: 8 # subjects in major: 1 # units beyond GIRs: 12		
Year 2	HASS (CI-H) 12		HASS 12
	Biology 12		
	# subjects: # subjects in major: # units beyond GIRs:		
Year 3	HASS 12		HASS 12
	# subjects: # subjects in major: # units beyond GIRs:		
Year 4	HASS 12		HASS 12
	# subjects: # subjects in major: # units beyond GIRs:		
Total # subjects in major:		Total units beyond GIRs:	