



Civil and
Environmental
Engineering

MIT Civil and Environmental Engineering
Master of Engineering, *Structural Mechanics and Design*

1.THG / Thesis Guidelines

The MEng thesis is the result of an individual research project conducted by each student in the program in close collaboration with their faculty thesis supervisor. Thesis research begins immediately upon arrival at MIT, and concludes in May with the submission of the signed thesis document. The official MIT deadline for thesis submission is **May 5, 2023**.

Research Requirement and 1.THG

1.THG is a subject associated with a program of research leading to the writing of a graduate thesis. Research plays an integral role in the graduate degree, and research effort is tracked through enrollment in 1.THG. This subject is associated with the laboratory, field, computational, or theoretical research undertaken by each student working with a faculty supervisor in CEE at MIT.

Graduate students are required to register for 1.THG every semester (including IAP), and as part of this, meet with their supervisors on a regular basis. MEng students are required to register for 24 units of 1.THG during the program (we recommend 10 units in fall and spring and 4 units over IAP) and should meet with their supervisors on a weekly basis.

The general process and timeline for conducting and writing the MEng thesis is as follows:

September-October 2022

Thesis topic exploration, preliminary literature review, meetings with potential supervisors, supervisor and topic selection.

November-December 2022

Thesis literature review completed, research question and methodology established, preliminary research results gathered, thesis outline started.

January-February 2023

Research methodology(ies) carried out, including numerical and computational work, physical experiments, etc. Students are expected to be present on campus during IAP conducting research.

March 2023

Final research results and analysis/interpretation completed, writing on all chapters initiated.



April-May 2023

Thesis writing, revising, editing, and submission.

Students will work closely with their thesis supervisors and CEE faculty throughout all steps of the thesis process. As part of the 24 1.THG units completed in the program, students will have milestones, deadlines, and presentations to ensure steady progress and to share thesis research and results with their peers and supervisors.

Outside of meetings with supervisor(s), most thesis activities related to 1.THG will take place weekly with Professors Mueller and Ochsendorf in Academic Year 2022-2023. A detailed schedule for the 2022-2023 academic year is given below.

Key 1.THG Dates and Assignments, Fall 2022

Friday, September 16, 2022, 12pm-2pm, 1-131

Thesis key dates overview by APO and introduction to MIT Libraries for MEng Students

Friday, October 14, 2022, 12pm-2pm, MEng Room

Short research presentations by CEE faculty for MEng Students

Friday, October 21, 2022

Preliminary literature review due on Dropbox

Select and annotate three scholarly publications representative of your interests and possible focus of the MEng thesis. A written paragraph devoted to each publication should summarize the completed research and propose future work that could be done toward the thesis. This document should be used in conversations with potential thesis supervisors.

Friday, October 28, 2022

Thesis proposal signed by supervisor due to APO [cee-apo@mit.edu]

Prepare a one-page abstract proposing research for the MEng thesis. The abstract should introduce the topic, outline research methodology, and summarize the goals of the work. The thesis supervisor must also sign the cover sheet to indicate their agreement in supervising the proposed topic.

Submit signed copy of thesis proposal electronically, using form on [CEE.MIT.EDU/RESOURCES](https://cee.mit.edu/resources)

Friday, November 4, 2022, 12pm-2pm, MEng Room

Thesis progress presentations by each student



Prepare a 6-minute presentation using PowerPoint or similar software to introduce your research topic, review critical existing research in the same area, identify the original research question, outline the proposed methodology, anticipate results, and conclude with the impact of the work. Feedback on both the content and clarity of the presentation will be provided by CEE faculty.

Friday, December 9, 2022

Thesis outline due to supervisor

Full thesis draft in outline form, including the five standard chapters: 1. Introduction, 2. Literature Review, 3. Methodology, 4. Results, 5. Conclusions. The first three chapters should be more filled out, including text and images, while the later chapters can include placeholders for anticipated content.

Key 1.THG Dates and Assignments, Spring 2023

Friday, February 10, 2023, 12pm-2pm, MEng Room

Thesis progress presentations by each student

Prepare a 5-minute presentation using PowerPoint or similar software to give updates on your thesis research, following a similar format to the November presentation (with more focus on methodology and results). Feedback on both the content and clarity of the presentation will be provided by CEE faculty.

Friday, March 17, 2023

Progress thesis draft due to supervisor

Expansion on thesis draft outline from December, including substantial updates to Literature Review, Methodology, and Results. Your supervisor will give comments and feedback in person and/or in writing on your draft.

Friday, April 14, 2023

Full thesis draft due to supervisor

Near-final thesis draft with all chapters written, and results completed, analyzed, and interpreted. This deadline is critical to receive final feedback from your supervisor.

Poster draft due to supervisor

Outline of poster content planned for final presentations in mid-May

Friday, April 28, 2023

Final thesis draft due to supervisor

Finalized thesis that has been copy-edited, formatted according to MIT Guidelines (<https://libraries.mit.edu/distinctive-collections/thesis-specs/>), and thoroughly reviewed by the



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student for legibility, clarity of arguments, and overall quality. This is the final version to be approved by the supervisor prior to printing and submission.

Friday, May 5, 2023

Thesis submission deadline

Poster submission deadline

mid-May 2023, 5-7 pm, location TBD

Present final poster to CEE community at the end of year award ceremony.