

8.13 Experimental Physics I



8.13 includes a three-week preliminary period, followed by work on three regular experiments and final presentations. The flow of the course, including key dates and assignments, is detailed in the list of [Modules](#). The assignment and activities schedule in the course syllabus is summarized in the [8.13 Course Calendar](#) [↓](#), at the bottom of the page. For 8.13 staff contact information, see [8.13 Teaching Team](#)

Preliminary Period		
<a href="#">Class Session 1</a>	<a href="#">Class Session 2</a>	<a href="#">Class Session 3</a>
<a href="#">Class Session 4</a>	<a href="#">Class Session 5</a>	<a href="#">Class Session 6</a>

<a href="#">Exp005. Photoelectric Effect</a>	<a href="#">Exp009. Michelson Interferometer</a>
--	--

Regular Experiments		
<a href="#">Exp01. Compton Scattering</a>	<a href="#">Exp07. Franck-Hertz Experiment</a>	<a href="#">Exp09. Relativistic Dynamics</a>
<a href="#">Exp12. Pulsed NMR: Spin Echoes</a>	<a href="#">Exp14. Speed and Mean Life of Cosmic-Ray Muons</a>	<a href="#">Exp15. Rutherford Scattering</a>
<a href="#">Exp17. Optical Emission Spectra of Hydrogenic Atoms</a>	<a href="#">Exp31. X-Ray Physics</a>	<a href="#">Exp43. Johnson and Shot Noise</a>
<a href="#">Exp46. 21-Centimeter Radio Astrophysics</a>	<a href="#">Exp51. Optical Trapping</a>	<a href="#">Exp56. CosmicWatch</a>
<a href="#">ExpOD01. Gravitational Wave Detection</a>	<a href="#">ExpOD02. Higgs Detection</a>	

[courseCalendar.pdf](#) [↓](#)  
[Minimize File Preview](#)



MIT 8.13 Course Calendar		
Day	Week	Activities
Mon	1	Introduction, safety, and ethics
Tue	1	Class 1: Speed of light, relativity, and ethics
Wed	1	Class 2: Speed of light, relativity, and ethics
Thu	1	Class 3: Speed of light, relativity, and ethics
Fri	1	Class 4: Speed of light, relativity, and ethics
Sat	1	Class 5: Speed of light, relativity, and ethics
Sun	1	Class 6: Speed of light, relativity, and ethics
Mon	2	Class 7: Speed of light, relativity, and ethics
Tue	2	Class 8: Speed of light, relativity, and ethics
Wed	2	Class 9: Speed of light, relativity, and ethics
Thu	2	Class 10: Speed of light, relativity, and ethics
Fri	2	Class 11: Speed of light, relativity, and ethics
Sat	2	Class 12: Speed of light, relativity, and ethics
Sun	2	Class 13: Speed of light, relativity, and ethics

Introduction to American Politics

The course syllabus can be downloaded [here](#) [↓](#).  
The lectures for 17.20 are Thursdays 3–5pm in [56-114](#). Recitations are Tuesdays 4–5pm ([56-180](#)) or Thursdays 10–11pm ([56-169](#)).

Here is the teaching team's contact information and office hours schedule:

Contact information			
Instructor	Email	Office	Office hours
Devin Caughey (professor)	<a href="mailto:caughey@mit.edu">caughey@mit.edu</a>	E53-463	Thu 12:00–12:30
Preston Johnston (TA)	<a href="mailto:prbj@mit.edu">prbj@mit.edu</a>	E53-420	Tues 2:05–3:30pm
Kim Vaeth (writing advisor)	<a href="mailto:kjvaeth@mit.edu">kjvaeth@mit.edu</a>	Zoom	Conference sign-up

The following pages contain information on the assignments and expectations for each week the semester (materials for Week 13 will be posted separately under [Debates](#)):

Weekly materials			
<a href="#">WEEK 1</a>	<a href="#">WEEK 2</a>	<a href="#">WEEK 3</a>	<a href="#">WEEK 4</a>
<a href="#">WEEK 5</a>	<a href="#">WEEK 6</a>	<a href="#">WEEK 7</a>	<a href="#">WEEK 8</a>
<a href="#">WEEK 9</a>	<a href="#">WEEK 10</a>	<a href="#">WEEK 11</a>	<a href="#">WEEK 12</a>

For an expanded view of all content assigned in the week, make sure to check out [modules](#). Additionally, you can find below additional resources relating to each of the papers, debates, and general extraneous assignments throughout the semester:

Assignment information				
<a href="#">SHORT PAPER #1</a>	<a href="#">SHORT PAPER #2</a>	<a href="#">LONG PAPER</a>	<a href="#">DEBATES</a>	<a href="#">NEWS REPORTS</a>

Concentrating/minoring political science

[MIT's undergraduate program in political science](#) combines professional social science training with opportunities for a broad liberal arts education. Political Science is concerned with the systematic study of government and the political process. At MIT we have classes in these subfields: Political Theory, Political Economy, American Government, Public Policy, International Relations, Comparative Politics, and Methods.

- HASS concentration (3 subjects):** To make Course 17 your HASS concentration, you must take three political science subjects, including at least one upper-level subject. The three subjects must be connected based on a theme, subfield, or other basis.
- Minor (6 subjects):** Course 17 is home to three minor program offerings: Political Science, Public Policy, and Applied International Studies. Each minor program comprises six subject. You can use three of these subjects towards a concentration as well.

For more information on Course 17, contact the Political Science Undergraduate Administrator, [Dr. Kate Hoss](#).

Registering to vote

[MIT partners with TurboVote](#)—a non-profit website that seeks to increase voter turnout by helping its users register to vote, find polling places, and research election issues—to help students, faculty, and staff register to vote in local, state, and national elections, by mail or in person, whether they reside in Massachusetts or another state. [It takes five minutes or less to](#)

ES.A101: Hack Yourself: Data-driven Wellbeing and Learning

Before First Class	<a href="#">Welcome survey</a> <a href="#">Install Python</a> <a href="#">Favorite meme/gif/funny/whatever</a>
September 6, 2024 (Week 1)	<a href="#">The mind is a muscle</a>
Between Weeks 1 and 2	<a href="#">VIA Strength assessment</a> <a href="#">Positive Introduction</a> <a href="#">Weeks 1-2 reading</a> <a href="#">Create Sigma account</a>
September 13, 2024 (Week 2)	<a href="#">Motivation and strengths</a>
Between Weeks 2 and 4	<a href="#">Sharing your positive introductions</a> <a href="#">Strengths practice</a> <a href="#">Optimism assessment</a> <a href="#">Weeks 2-4 reading</a> <a href="#">Weeks 2-4 optional reading</a>
September 27, 2024 (Week 4)	<a href="#">Stress and resilience</a>
Between Weeks 4 and 5	<a href="#">Best possible future self</a> <a href="#">Apply the ABCs</a> <a href="#">Weeks 4-5 reading</a>
October 4, 2024 (Week 5)	<a href="#">Attention and active learning</a>
Between Weeks 5 and 6	<a href="#">Goal setting exercise</a> <a href="#">Weeks 5-6 reading</a>
October 11, 2024 (Week 6)	<a href="#">Goals, satisficing, and learning differences</a>
Between Weeks 6 and 7	<a href="#">Exchange letters with your future self</a> <a href="#">Weeks 6-7 reading</a> <a href="#">Optional satisficing plan</a>
October 18, 2024 (Week 7)	<a href="#">Habits, social media, and spaced learning</a>
Between Weeks 7 and 8	<a href="#">Forming a new habit</a> <a href="#">Weeks 7-8 reading</a>
October 25, 2024 (Week 8)	<a href="#">Relationships</a>
Between Weeks 8 and 9	<a href="#">Fostering high-quality connections</a> <a href="#">Weeks 8-9 reading</a>
November 1, 2024 (Week 9)	<a href="#">Teams</a>

• Week 3: Playtesting

Week 3

Week 3 Developer Diary

T Sep 19: P1 Playtest Session 1

9/19 Reading and Discussion: Playtesting

[CMS.611] 2:00 PM - 5:00 PM Tuesday 09/19/2023

Game: Ultimate Chicken Horse

Sep 19 - playtest 1.pdf

Feature Lists\_2023.pdf

Feature List Exercise

Th Sep 21: P1 Playtest Session 2

9/21 Reading and Discussion: Communication

2023 Fall CMS.611J/6

MIT GAME LAB

Week 1

Module Link

Tuesday: No class, nothing due.

Thursday:

- [Syllabus](#)
- We will go over some class logistics and introduce this year's game theme.
- We'd like to know more about you - take this [survey](#) [↗](#)!
- [Game Analysis assignment](#) - due Monday

Pages like this one will be released every Friday at 10:00 am EST to give a look ahead at next week's class. Bulleted items under each day are due BEFORE the class on the day they pertain to. All of the materials found in the Modules tab for the associated week, linked in the Module Link at the beginning of the page.

Creating Video Games

