

Experiential Sustainability: 1.005

Course Leader

Ty Christoff-Tempesta, Materials Science and Engineering, ty.christoff@mit.edu

Faculty Sponsor

Desirée Plata, Civil and Environmental Engineering

Note: this syllabus is tentative and subject to change.

Course description

Welcome to Experiential Sustainability! Through weekly, hour-long discussion groups of around five students, you'll have the opportunity to explore sustainability issues around your own experiences—whether these are projects you're working on, internships, summer research, future goals, or your experiences as an MIT student. Each discussion group will be led by a Graduate Facilitator (GF), and you will have short weekly assignments to guide you through your sustainability exploration, as well as a final project. Fundamentally, the class is driven by you: we want you (as a discussion group and as an individual) to explore these issues as *you* want to explore them—with our help and guidance along the way. All of us on the Teaching Team are excited to work with you this summer.

Grading and assessment

For the class to be student-driven, you have to be prepared to contribute to each session, which means reading, watching, or listening to the short, mandatory weekly assignments.

- Attendance and participation 50%
- Short weekly assignments 25%
- Final project 25%

You must pass each portion of the class to pass the class as a whole. To pass the participation grade, you may only have one unexcused absence (to make up for an unexcused absence, talk to your Graduate Facilitator). Missed classes and late assignments are excused with a note from [Student Support Services](#).

Time commitment

This class is a 3-credit class, which means you can expect a total time commitment (including all homework and class time) of ~42 hours over the term.

Overview of assignments

As noted in the “Grading and Assessment” section above, there are two kinds of assignments for this class: weekly assignments and the final project.

Weekly Assignments

Weekly assignments are due 24 hours before the time of your week’s discussion group.

- *Readings and videos.* Each week will have approximately one hour of light reading and videos, drawn from different sources to provide different perspectives on sustainability.
- *Your research leading up to your final project.* For Weeks 3-7, you will have assignments that will help you build up to your final project. The basic form of the assignment is to find an article or artifact—a podcast, video, popular or academic article, a piece of art—related to your final project (or what you think your final project will be), and write a 100-word reflection or make a 1-minute video to send to your GF.

Final Project

Your final project for this class is highly flexible. We will provide you with certain options—write a 1,750-word essay, create a website, interview someone in your field and write a commentary about it, make a series of vlogs—and you can propose your own.

Deadlines:

- *Meet with your GF to discuss final project idea:* before your Week 5 session.
- *Submit final proposal:* before your week 6 section.
- *Submit your final project:* one week after your last class session

Learning goals

By the end of this class, students will:

- Have a broad introduction to sustainability challenges, governance, science, and frameworks
- Be able to identify, address, and communicate the sustainability implications of their own work
- Evaluate sustainability-focused interventions through several lenses explored in the class

Class schedule

Below are the general themes for the class. We'll cover each theme in 1-2 discussion sessions, for which we'll share short readings, podcasts, and videos that will serve as catalysts for discussion. However, how the discussion goes will be up to you and your fellow group members (and Graduate Facilitator) to decide together. We're also planning a virtual Sustainability Field Trip that will likely take place halfway through the summer (details coming soon).

Week 1: Introduction and exploring your relationship to sustainability

Overview: In this first class, we explore what sustainability means to you, what the biggest challenges in sustainability are, and how considering sustainability may add value to our summer work and beyond.

Week 2: Framing sustainability and the UN Sustainable Development Goals

Overview: How can we analyze complex sustainability issues at work, in our labs, in our projects, and in our environments in an approachable way? What does the global community view as the most challenging areas in sustainability, and how might we begin to tackle them? Using the UN Sustainable Development Goals, we'll investigate how to break down complex sustainability challenges and identify interventions (solutions).

Week 3: Sustainable development

Overview: As businesses and companies seek to change behaviors in response to climate change, what technologies or strategies can be used to balance economic and environmental well-being? This week, we'll explore what sustainable development means in relation to our summer positions or areas of interest, and how a circular economic model could fit into them.

Week 4: Consumers and corporations

Overview: Businesses increasingly incorporate sustainability targets as part of their corporate goals, often as a result of consumer pressure. This week, we delve into the history and murkiness of greenwashing, the role of consumers and companies in addressing sustainability challenges, and whether these actions will generate meaningful change.

Week 5: Policymaking

Overview: Sustainability-focused governance often lags behind - or contradicts - the science on appropriate actions to protect the environment. This week, we explore the more common tools used in crafting policy and the forces involved in shaping it. Within this, we wonder: how does corporate lobbying influence policymaking? How are competing interests balanced in crafting laws?

Week 6: The history of Environmental Justice

Overview: Environmental crises disproportionately affect marginalized communities among racial and socioeconomic lines. For example, high-polluting industrial plants and waste management sites have more frequently been located in minority-dominant communities. This week, we explore the environmental justice movement in the US and analyze the role of the government and corporations in its history.

Week 7: Environmental Justice today

Overview: This week, we investigate contemporary Environmental Justice movements, both within and outside the dominant cultural perspective on sustainability. We consider the role of activism in these cases, and the role of citizens, companies, and governments in these events.

Weeks 8 and 9: Student final project workshop

Overview: In these class sessions, you'll present your preliminary work on your final project and get feedback from your peers and Graduate Facilitator.

Week 10: Choose your own topic, course reflection, course feedback

Overview: reflect on the semester, students choose what topic to focus on; we'll also set aside some time to get your (the students') feedback on the class, see how your thinking has evolved over the summer, and explore how your time at MIT - and career more broadly - could incorporate thinking on sustainability.

One week after your final class: Final project due

Other course sessions

Field Trip!

We will have two “field trips;” it’s mandatory that you come to at least one. (If you have scheduling conflicts, please consult with your GF on a make-up assignment.) You can boost your participation grade by attending both. These field trips may include a panel discussion with climate experts on pressing sustainability issues and class-wide climate action negotiation simulations.

SustainabilityFest

Sometime in September 2021 you will present your final project to the wider MIT community at SustainabilityFest. (More details to come.)

Participation

Participation is central to Experiential Sustainability. We want you to work through sustainability issues in the way that’s best for you, which requires participation. Your participation grade will not just be determined by the amount you participate, but also the manner. On the first day of class, the members of your discussion groups and your Graduate Facilitator will make ground rules for discussion.

Academic integrity

We take academic integrity very seriously. If you’re in doubt about what counts as a breach of academic integrity, get in touch with your Graduate Facilitator or refer to the [Academic Integrity Handbook](#). If academic dishonesty is proven, there will be severe disciplinary consequences, which may include any or all of: a redo of the assignment for a reduced grade; failure on the assignment; failure of the course; a letter in the student’s file in the Office of Student Citizenship or referral to the Committee on Discipline. If you’re tempted to plagiarize, it’s always better to speak to your Graduate Facilitator, the course leaders, your advisor, academic deans, or another trusted authority on campus who can help you.

Accommodation

If you have a disability, you have a right under the American with Disabilities Act to an accommodation. As a matter of Institute policy, accommodation requests must first go through [Student Disabilities Services](#). If you are eligible, they will give you an

accommodation letter that you should bring to your Graduate Facilitator as soon as possible. That way you and your Graduate Facilitator can work together to make sure all of the course content is accessible to you. We take this very seriously and it is our top priority to support all of our students.

If you have concerns

If you have concerns with anything about the class for any reason, please contact your Graduate Facilitator, the course leaders, or write through an anonymous form. (You can also contact the [Ombuds Office](#).) Everyone in the class deserves to feel that they're in a positive and safe environment, and no issue is too small.