

# CLIMATE + SUSTAINABILITY SYSTEMS

*Toward your dreams*

## Climate + Sustainability Systems

The New Engineering Education Transformation (NEET) Climate and Sustainability Systems (CSS) thread offers hands-on coursework focused on three areas:

**New Materials and  
Processes**

**Energy Production and  
Distribution**

**Manufacturing**

This thread provides the training needed to **innovate the materials, devices, processes, and networked systems to support the urgent and imperative transition towards net-zero greenhouse gas emissions and a more sustainable planet.**

*NEET is a **3-year, experiential learning certificate program** (sophomore through senior year) that you complete in the usual four years along with your major. All NEET scholars gain **exclusive access to the NEET Scholars Collaboration Space (3-001).***



### CSS LEAD INSTRUCTOR

**Dr. Nathan Melenbrink**  
CSS Founding Lead Instructor, Lecturer  
MIT School of Engineering  
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# THREAD REQUIREMENTS

## Introductory Project Subject (recommended sophomore year):

22.03/3.0061[J]: Introduction to Design Thinking and Rapid Prototyping (6 units)

## Intermediate HASS Subject (recommended junior year):

21A.S01: Anthro-Engineering: Decarbonization at the Million-Person Scale (12 units)

## NEET Capstone Project Subject (taken junior or senior year):

### Choose ONE:

- 22.S094 | NEET Mongolia Project Capstone (12 units)
- UROP/SuperUROP related to climate, energy, materials, or manufacturing

## Elective Capstone-Level Project Subjects (taken junior or senior year):

### Choose ONE:

- 2.S981: Special Subject in Mechanical Engineering
- 3.042: Materials Project Laboratory
- 2.013: Engineering Systems Design
- 10.467: Polymer Science Laboratory
- 10.492 (A+B): Integrated Chemical Engineering Topics I (6 + 6 units)
- 10.493: Integrated Chemical Engineering Topics II (6 units)
- 10.494 (A+B): Integrated Chemical Engineering Topics III (6 + 6 units)
- Or other advanced project class

## Seminar Series (enroll for 3 semesters over the course of 3 years):

- 3.006/22.003[J] | NEET CSS Seminar

Speaker series featuring conversations with experts from academia and industry in energy, materials, or manufacturing, career input, special hands-on engagements, and technically-focused independent study options thereafter. (3 units)

## CSS FOUNDING FACULTY LEAD

### Professor Mike Short

CSS Founding Faculty Lead, NEET Associate Director  
MIT School of Engineering  
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Follow the action on Instagram at @mit\_neet!