CEE 176G/276G | Summer 2023:
Course Syllabus

Overview

This interactive, online design studio introduces techniques for applying the Design Thinking methodology (pioneered at Stanford's d.School) to create design ideas that are compelling, impactful and realizable.

In this course, we will:

- apply contextual, functional and human-centered design thinking techniques to design projects that promote **sustainability** by holistically considering space, form, environment, energy, economics, human behavior, and health.

- also focus on **resilience** - an important aspect of sustainability -- to consider how design ideas will be impacted (and, if designed thoughtfully, can help us continue to thrive) through disruptions, such as natural disasters or the global pandemic that we're experiencing today.

The course features a series of 4 design projects, exploring how Design Thinking can be applied and giving you an opportunity to practice it on diverse projects of different scales, including:

- products
- services
- places and spaces for living and working
- communities and urban environments

In each of these projects, you will work with a small design team to apply Designing Thinking by:

- **Empathizing** observing, listening, and interviewing to understand the needs
- **Defining** analyzing, diagnosing, and identifying the needs that your team will focus on
- **Ideating** generating, brainstorming, and refining potential design ideas
- **Prototyping** sketching, simulating, and modeling design ideas
- **Testing** observing users as they interact with your prototypes, gathering insights to refine

  your design ideas

Class Components

Class Sessions

The class will meet online for two scheduled class sessions per week. These class sessions will include a combination of discussions, case study presentations, interactive team exercises, and design studio working sessions.

## Participation in these Class Sessions is Required

As a member of our design studio, you are expected to attend all class sessions in person. So, while much of your project work will be completed outside of class time, you are expected to attend all class sessions in person at the scheduled class times.

Remote Access to Class Sessions

If you ever cannot attend the live class session, please join us online using this link:

https://bit.ly/CEE176G-ClassSessions

or connect using the Zoom link in Canvas:
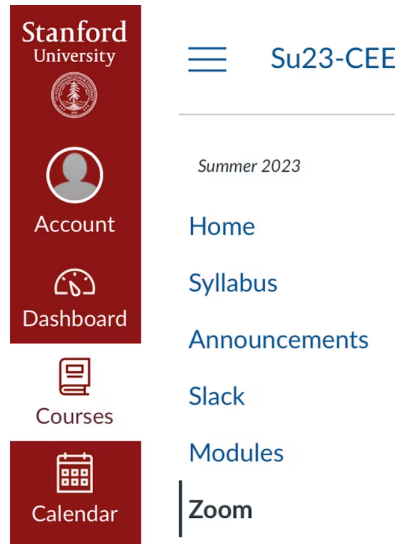
Reviewing Class Session That You Miss

And if you cannot attend in person join a class online at the live class time, you are expected to view the recording of the session prior to the next class meeting.

Design Projects

The class is organized into three modules -- each of which features a design project that will give you an opportunity to exercise and apply your design thinking skills to a design and propose a solution that promotes sustainable behaviors and practices.

Each design project will each require about 7 hours of work per week outside of the class sessions.

You'll be working independently on Design Project 1, then in small teams on Design Projects 2 and 3, to share a proposed design that:

- meets the needs that you or your team identifies
- illustrates your strategy for approaching the challenges and opportunities to your uncover
- demonstrates your application of the design thinking process
- makes a measurable impact on improving sustainable behaviors and practices

Weekly Consulting and Problem-Solving Sessions

We'll also host weekly consulting / problem-solving sessions, which will give you an opportunity to interact with the studio mentors and discuss the challenges that you're finding as you work on your projects in a more direct, focussed format.

Testing and Grading

The class will not have any exams. Your class grade will be determined by:

- your scores earned on each of the 3 design projects
- your participation in the in-person and online class discussions