

# Advanced Web Design Studio

COMS 6998 · Fall 2018

## Goals

1. Master front-end and back-end technologies for making interactive websites.
  2. Discover specific user needs by developing a low-level, mechanical model of human behavior.
  3. Practice iterative design to meet specific user needs.
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## INSTRUCTOR

Prof. Lydia Chilton (<http://cs.columbia.edu/~chilton>)

OH: Tuesdays 4-5, CEPSR 612

Please contact staff through Piazza (<https://piazza.com/class/jlms7jya1slnm>) only

## TAS

Katy Gero

OH: TBA, CS OH room

Savvas Petridis

OH: TBA, CS OH room

## WEEKLY SCHEDULE

Lecture

Friday 2:10–4pm in Mudd 337

(also known as the Engineering Terrace)

## TEACHING METHOD

This is a studio style class in the tradition of art and architecture. Students are expected to already know the fundamental techniques. We will practice these techniques as well as give and receive critique on a weekly basis. Attendance is mandatory. Any absence, excused or otherwise, must be made up

## PREREQUISITES

All material from COMS 4170 (<http://coms4170.cs.columbia.edu/2018-spring/>) is a mandatory prerequisite for this class including: HTML, CSS, Bootstrap, JavaScript, critique, and iterative design. This material will not be covered; this course will exercise and hone the skills learned in that class. Students interesting in learning web programming and design should take COMS 4170.

## GRADING

In-class participation: 20%

Attendance is mandatory. Any absence, excused or otherwise, must be made up convenience of the staff. It is the students job to coordinate make up sessions within 6 days of the absence. To make up a class, find a staff member at least one other classmate and schedule a time to do a design review of your past week's progress. Give and recieved feedback from your peers.

Weekly Turn-ins: 60%

Every week student will turn in a document that described their progress during the week. There are 13 weeks of class and 12 turn-ins. Each turn-in is worth 5% of your final grade.

That document must contain three things:

- **Original Goals**

Establish one high level goal and 7-10 low-level goals that will help you accomplish the high level goal.

- **Lessons learned through iteration**

Report on 3 of the things that you learned that caused you to iterate. Consider the following format: My plan was to \_\_\_\_x\_\_\_\_. But I ran into problem \_\_\_\_y\_\_\_\_. And I solved it by doing \_\_\_\_z\_\_\_\_.

Where z = "I added a new subgoal", "I changed my high level goal", "I removed a subgoal" Each of the three things should take 1-2 paragraphs to describe. Images are encouraged.

- **Goal Progress**

For each of the goals in part 1. Which items you completed? Show images to document each item (either of the UI or code).

Final Project: 20%

Projects may be individual work, or students may work in pairs of 2. Project assessment is based on individual write ups of your contribution to the project.

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## Syllabus

Week 1: September 7

Web Services and CRUD (Flask, HTML, JavaScript, Bootstrap) (./pdfs/adv-web-1-intro.pdf)

Week 2: September 14

CRUD and Databases (Flask, Sqlite, SQLAlchemy)

Week 3: September 21

Databases and joins (Flask, Sqlite, SQLAlchemy)

Week 4: September 28

Real-Time communication (Socket.IO)

Week 5: October 5

Users and Sessions (Session variables)

Week 6: October 12

Python APIs

Week 7: October 19

Design: Observation and identifying problems

Week 8: October 26

Design: Prototyping

Week 9: October 26

Project Proposals

Week 9: November 2

Project Updates 1

Week 10: November 9

Project Updates 2

Week 11: November 16

Project Updates 3

Week 12: November 30

Project Updates 4

Week 13: December 7

Final Project Updates 5

Materials for this site coordinated by Lydia Chilton, adapted from previous material from Stanford CS 247. For problems with this site contact the staff on the class forum.

(<http://www.columbia.edu>)