*Coding for Spatial Practices I*

Columbia University

Graduate School of Architecture, Planning and Preservation

ARCH A4988, Fall 2024

Tuesday, 7PM – 9PM (EST)

600 Avery | Ware Lounge, 1172 Amsterdam Avenue, New York, NY 10027

Instructor: Celeste Layne, [cl2754@columbia.edu](mailto:cl2754@columbia.edu)

Course Communication: [Slack](https://join.slack.com/t/slack-vj66319/shared_invite/zt-2q6uuxcx3-ewKzWuzfAu4ck7I7qr4ITw)

Course Materials: [Google Drive](https://drive.google.com/drive/folders/1sQRM-y6ZUOy4dq9UybGGBqDzlXgTgzl0?usp=drive_link)

Class Repository: [curly-pancake](https://github.com/celestelayne/curly-pancake)

Course Description

*Coding for Spatial Practices I* introduces students to web design and development as a means of representation, speculation and communication. Students will learn the foundational, front-end languages HTML, CSS and JavaScript to create work for the web browser.

To guide our study, we will explore questions such as: What is the relationship between architecture and the World Wide Web? What parallels can be drawn between the development process and our own design processes?

In hands-on sessions, students will respond to creative prompts and generate long-form projects which allow them to develop concepts, ideas, and strategies for web-based projects. These projects will be supplemented/contextualized by lectures, and readings to reinforce core concepts.

Course Schedule (Subject to change)

| Week | Day | Theme | In Class | Assignment |
| --- | --- | --- | --- | --- |
| 01 | 09/03 | Hello World | [Class Introductions](https://drive.google.com/file/d/1_LDvHj2XyyDOKbk_jxeu5N2mT4lG1s9X/view?usp=drive_link) | Apply to Enroll  Due 09/10 |
| 02 | 09/10 | Organizing Content | [Lecture: HTML Basics](https://drive.google.com/file/d/1p7IStwO4Hp9RaS0L8JebQqj5IuBk0hjl/view?usp=drive_link)  Set Up: Github, Code Editor, Slack  Exercise 01: Hello World  Exercise 02: Markup GSAPP Event | **P1 Image Journal**  Due 10/15  Assignment 02: Markup Lina Bo Bardi  Due 09/24 |
| 03 | 09/17 | Organizing Content | [Lecture: Visual Information Design](https://drive.google.com/file/d/1jbQXw6mm98zlWOXM9ec6zNhWVm4x86Qh/view?usp=drive_link)  Exercise 03: Style GSAPP Event |  |
| 04 | 09/24 | Presenting Content | [Lecture: CSS Basics](https://drive.google.com/file/d/1IRtDrr0ae8DxV5XgQoH3MUKJZanwB8O6/view?usp=drive_link)  Exercise 04: Layout GSAPP Event | [Assignment 03:](https://docs.google.com/document/d/1WWfhlqwQUBBm3B1IJc517rsDmGQBG0E7qh13lufsIzk/edit?usp=sharing) Style Lina Bo Bardi  Due 10/01 |
| 05 | 10/01 | Presenting Content | [Lecture: Color, Type & Gestalt](https://drive.google.com/file/d/17uwbpHIuuQmLm17F0Pc83ecvKPzkT0wo/view?usp=drive_link)  Exercise 5: Button with hover states |  |
| 06 | 10/08 | Organizing the Page | [Lecture: Layout & Grids](https://drive.google.com/file/d/1BKePXhGA2u6bBXx8ghTf6vcCuxBCbisr/view?usp=drive_link)  Exercise 6: Build a navigation bar using flexbox | [Assignment 04:](https://docs.google.com/document/d/1-A3EY9L8xMHEZZio-1B5RxYRn5xF6WSElX3yC83RZC8/edit?usp=sharing) Layout Lina Bo Bardi  Due 10/15 |
| 07 | 10/15 | Organizing the Page | Lecture: Flexbox  Exercise 7: Build an off-canvas menu | **P1 Image Journal Due** |
| 08 | 10/22 | Organizing the Page | Lecture: Responsive Web | Assignment 05: Make the Lina Bo Bardi article responsive using media queries  Due 10/29  **P2 Catalog**  Due 12/16 |
| 09 | 10/29 | Interacting with the Page | Lecture: Motion Basics  Exercise 8: Color Switcher | Assignment 06: Navigation with hover states and @keyframe animations  Due 11/12 |
| 10 | 11/04 | NO CLASS  Election Day | | |
| 11 | 11/12 | Interacting with the Page | Lecture: Functions & Events  Exercise 10: Add small interactions to the web page | Assignment 07: Sentence Generator  Due 11/19 |
| 12 | 11/19 | Interacting with the Page | Lecture: Events and Objects  Exercise 11: TBD | Assignment 10: Complete  Color Switcher Due 11/26 |
| 13 | 11/26 | Launching Your Site | Lecture: Search, Filter and Sort  Exercise 12: TBD | Assignment 11: Off Canvas Menu Bar  Due 12/03 |
|  |  | Thanksgiving Break  Nov 27–29 | | |
|  |  | Final Reviews  Dec 2–11 | | |
|  | 12/16 | Last Day Work is Due | | |

Course Objectives

* Use the browser as a platform for expression and experimentation
* Produce working prototypes of web pages and gain a working knowledge of HTML, CSS and Javascript.
* Understand the technology involved in implementing a website
* Learn to find answers online to coding problems

Class Activities

* Projects  
  This course features 2 in-depth projects that relate to the lectures.
* In-Class Exercises  
  Exercises will solidify material covered in lecture. At minimum, follow the instructions for each exercise but personal experimentation is strongly encouraged.
* Assignments  
  The take home assignments will reinforce the lecture taught in class and the in-class exercises covered.

Prerequisites

* No coding requirements
* A willingness to explore the web in many forms, uses, and aesthetics, as well as a whole array of alternative and out of the ordinary sites

Requirements

* Hardware
  + A laptop or desktop
  + Backup storage: use a cloud service or external hard drive to backup your work. You are responsible for ensuring all of your work is available throughout the class. You will not be excused for preventable loss of data.
* Software
  + [Github](https://github.com/)
  + A text editor for coding such as [Visual Studio Code](https://code.visualstudio.com/)
  + Accounts to the following services: [Slack](https://slack.com/), [Are.na](https://www.are.na) and [Codepen](https://codepen.io)

Deliverables

All work should be published online through your Github website. Students will deliver projects and exercises in one digital bundle on the last day of class. A document with a detailed checklist and instructions to organize this bundle will be posted to Google Drive before the last week of the course.

Attendance

Attendance is mandatory. Please join meeting times promptly to avoid cascading delays. Work missed due to any type of absence is the student’s responsibility. Three or more absences will result in a failing grade. I understand that things may arise and you will need to miss a class; but please inform me beforehand so we can plan around it. That said, you are responsible for making up any missed assignments by the next class.

Our Slack channel will be the main source of communication on class schedule and logistics.

Grading

* Stay informed of class plans and requirements announced via Slack, and actively communicate any concerns
* Complete all assignments to the best of your ability
* Actively participate in class discussions
  + Attendance & Participation 20%
  + Assignments 60%
  + Final Presentation 20%