



**Course Name:** Web Design with HTML5 and CSS3

**Course Number:** Design X455 - 024

**Number of Units:** ( 2 ) semester unit in Design

**Instructor Name:** Pamela Wong

**Instructor's email:** [pamela.wong@berkeley.edu](mailto:pamela.wong@berkeley.edu)

**Day and class meeting time:** March 17, 2022 to May 19, 2022, Thursday, 6:00PM – 9:00PM

**Semester and Year:** Spring 2022

**Location:** Live Online – Zoom video conferencing

**Phone Number:** Please email instructor your questions.

**Elective Class:** In the Professional Sequence in Graphic Design

**Honor Code:**

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- Tips for Maintaining My Academic Integrity

([http://extension.berkeley.edu/upload/academic\\_integrity.pdf](http://extension.berkeley.edu/upload/academic_integrity.pdf))

- UC Berkeley Extension Code of Student Conduct

(<http://extension.berkeley.edu/upload/studentconduct.pdf>)

## Course Description

This course offers an introduction to HTML5, CSS3, and some exposure to JavaScript/jQuery to create a website. This course will have you applying Web Standards and mastering fundamentals of wireframing, prototyping, development, and deployment and best practices for usability and accessibility will be discussed. This course utilizes open-source software but requires students to acquire web hosting and domain name.

## Course Objective

The objective of this course is to have students understand the Web design and development process and to build a complete site worthy of a portfolio piece. Students will begin with the research phase, then continue to wireframe, prototype, development, and finally deployment. Industry standard tools will be applied to this course including InVision, Visual Studio Code, GitHub, among others. As well we will progressively build out a final site over 10 weeks that will have students using HTML5 video, CSS transitions/transformations, responsive web design, browser development tools, site deployment, version control of code, and much more.

## Student Learning Outcomes

- Understand Document Object Model structure
- Integrate CSS files
- Semantic coding
- Identify HTML accessibility

- Understand and implement JavaScript/jQuery plugins
- Wireframe and Design multi page website
- Prototype interactive website using InVision
- Code web pages to create a website
- Learn about website optimization and performance
- Understand document structure
- Learn deployment and version control with Git

### **Intended Audience**

This course is intended for anyone interested in building their own website. The course will be very fast paced and hands on with an emphasis of during further exploration outside of the classroom. The topics and implementation will be vast but taught in a smaller compartmentalized manner so students can feel confident and will be setup for success. The goal is to have a narrow-scoped project but open the possibilities of further learning experiences. No prior programming or knowledge required, just a basic understanding of the file system on your computer.

### **Prerequisites**

There are no prerequisites for this course.

### **Instructional Method**

Each class will consist of a lecture, followed by in class exercises on the lecture with weekly assignments that pertain to specific elements of the final project. Students will also be assigned to corresponding chapters in the textbook that will be the basis of each week's lecture. The course is taught live online and personal laptops (Apple MacBook or Windows PC) are required.

### **Required Text**

Murach's HTML5 and CSS3, 4<sup>th</sup> Edition, by Anne Boehm and Zak Ruvalcaba, Mike Murach & Associates, Inc. (Copyright ©2018). ISBN-13: 978-1943872268, ISBN-10: 1943872260.

### **Materials**

- Access to a computer and Internet access
- Access to web hosting. This will be discussed in class and have Instructor assistance
- A Text editor, Visual Studio Code / Atom
- Personal storage either physical or cloud bases

### **Process for Evaluation**

- Assignments: 70%
  - Development Environment Setup (10%)
  - Wireframes 1 (10%)

- Wireframes 2 (10%)
- Designs 1 (10%)
- Designs 2 (10%)
- Prototype (10%)
- Coding Exercise 1 (5%)
- Coding Exercise 2 (5%)
- Participation: 10%
- Final Project: 20%

## **Grading**

Students will be expected to complete each homework assignment and each assignment should be ready for review the following week at the beginning of class. Assignments are critical to maintaining progress and project completion. Each assignment will be graded on completion and quality. Failure to complete the final project, meaning online with hosting provider, will result in automatic failure of the course. Because of the nature of course complexity and content late work will not be accepted.

### **A**

The student's work must reflect outstanding achievement both in quantity and quality. The work pursues concepts, techniques above and beyond the problem. The student must display exceptional attitude in critique participation, response to criticism, and professional conduct. The student's ability to communicate and execute ideas must exhibit outstanding achievement.

### **B**

The student's work must reflect above-average achievement both in quantity and quality. Student pursues ideas and suggestions presented in class and goes to extra effort to resolve required problems. The student must display a positive attitude in critique participation, response to criticism, and professional conduct. The student's ability to communicate and execute ideas must exhibit above-average achievement.

### **C**

The student's work must reflect an acceptable achievement both in quantity and quality, and all work must be completed as assigned. The student must display a positive attitude in critique participation, response to criticism and professional conduct. The student should exhibit an acceptable level of ability in communication and execution of ideas.

### **D**

The student's work must reflect an average achievement both in quantity and quality, and partial work must be completed as assigned. The student displays an unsatisfactory attitude in critique participation, response to criticism and professional conduct. The student should exhibit an acceptable level of ability in communication and execution of ideas.

## F

The student's work and attitude reflect an unsatisfactory level of achievement both in quantity and quality. The student exhibits an unsatisfactory ability to communicate and execute ideas and a pattern of low productivity. The student's attendance record may be unacceptable. The student's lack of participation in critiques, poor response to criticism, and inappropriate professional conduct will result in a failing grade.

### Final Project:

You will need to recreate a website; however, you **should not be doing any asset creation** which means no logos, pictures, graphic images or anything that cannot be easily accessible through a simple Google Image search. The reason for this is **you should be focused on coding not doing Graphic Design.**

Final Project Demo: <https://whypam.github.io/x455-Proj-Demo-Spring-2022/>

Class Demo: <https://github.com/whypam/x455-HTML5-CSS3>

#### *Final Project Requirements:*

- Homepage
  - Requirements:
    - Fullscreen background image
    - HTML5 full screen video (optional/bonus)
- 2<sup>nd</sup> Page
  - Requirements:
    - X2 large paragraphs of text
    - X2 lists items
    - Image embedded into text block
- 3<sup>rd</sup> Page
  - Requirements
    - X3 slides carousel
    - X1 scrollable text area
- 4<sup>th</sup> Page
  - Requirements
    - HTML Table with 4 header and 4 columns
    - X10 table entries
    - Sortable table by headers
- 5<sup>th</sup> Page
  - Requirements
    - X3 embedded YouTube videos
    - X2 accordion text paragraphs
- 6<sup>th</sup> Page
  - Requirements

- X8 thumbnail images
- Image must have lightbox effect

## Class Overview

### All Homework will be submitted on Canvas

Week 1:	<p><b>Introductions:</b> Meet your classmates. Introduce yourself and tell the class a fun fact about yourself.</p> <p><b>Lecture:</b> Introductions to the course, what you will learn, tools, where to get help etc. Overview of final project, assignments, and course. Wireframing your project.</p> <p><b>Exercises:</b></p> <ul style="list-style-type: none"> <li>- Sign up for GitHub</li> <li>- Set up design folder</li> <li>- Start wireframes</li> </ul> <p><b>Homework:</b></p> <ul style="list-style-type: none"> <li>- Identify your band/artist</li> <li>- Read Ch. 1, 3 &amp; 17</li> <li>- Wireframe the following pages <ul style="list-style-type: none"> <li>- Home</li> <li>- 2<sup>nd</sup> Page</li> <li>- 3<sup>rd</sup> Page</li> </ul> </li> </ul>
Week 2:	<p><b>Lecture:</b> Introduction to the Visual Studio Code Editor. “What is HTML?” An overview of HTML and writing your first HTML file.</p> <p><b>Exercises:</b></p> <ul style="list-style-type: none"> <li>- Customizing Visual Studio Code</li> <li>- Setting up your project folder</li> <li>- HTML tags</li> <li>- Block vs inline-block</li> <li>- URLs and links</li> <li>- Browser Developer Tools</li> </ul> <p><b>Homework:</b></p> <ul style="list-style-type: none"> <li>- Read Ch. 2 &amp; 4</li> <li>- Wireframe the following pages <ul style="list-style-type: none"> <li>- 4<sup>th</sup> Page</li> <li>- 5<sup>th</sup> Page</li> <li>- 6<sup>th</sup> Page</li> </ul> </li> </ul>
Week 3:	<p><b>Lecture:</b> “HTML Deep Dive.” Semantic HTML, accessibility, and designing your project.</p> <p><b>Exercises:</b></p> <ul style="list-style-type: none"> <li>- Designing your final project</li> <li>- Semantic HTML Tags</li> </ul>

	<ul style="list-style-type: none"> <li>- HTML Tables</li> <li>- Layouts</li> </ul> <b>Homework:</b> <ul style="list-style-type: none"> <li>- Read Ch. 6</li> <li>- Design the following pages <ul style="list-style-type: none"> <li>- Home</li> <li>- 2<sup>nd</sup> Page</li> <li>- 3<sup>rd</sup> Page</li> </ul> </li> </ul>
Week 4:	<b>Lecture:</b> “What is CSS?” Overview of CSS and how it is utilized. <b>Exercises:</b> <ul style="list-style-type: none"> <li>- Importing CSS (external CSS)</li> <li>- Styling HTML</li> <li>- CSS Box Model</li> </ul> <b>Homework:</b> <ul style="list-style-type: none"> <li>- Read Ch. 5 &amp; 8</li> <li>- Design the following pages <ul style="list-style-type: none"> <li>- 4<sup>th</sup> Page</li> <li>- 5<sup>th</sup> Page</li> <li>- 6<sup>th</sup> Page</li> </ul> </li> </ul>
Week 5:	<b>Lecture:</b> “CSS Deep Dive.” Working with InVision. <b>Exercises:</b> <ul style="list-style-type: none"> <li>- Setting up InVision project</li> <li>- We will be using CSS to create responsive elements and layouts. We will be using InVision to create a small interactive project</li> <li>- Custom fonts</li> <li>- Working with images</li> </ul> <b>Homework:</b> <ul style="list-style-type: none"> <li>- Create InVision Prototype</li> <li>- Read Ch 7</li> </ul>
Week 6:	<b>Optional:</b> Prototype Presentations <b>Lecture:</b> “Advanced CSS.” CSS animations, pseudo classes, transitions, and Flexbox. Importing CSS Libraries and custom text. CDNs. <b>Exercises:</b> <ul style="list-style-type: none"> <li>- Introduction to Font Awesome Icon Framework</li> <li>- Responsive website development</li> <li>- Set up final project and GitHub workflow</li> <li>- 1:1 walk me through prototype for feedback</li> </ul> <b>Homework:</b> <ul style="list-style-type: none"> <li>- Read Ch. 12 &amp; 14</li> <li>- Code the following pages <ul style="list-style-type: none"> <li>- Homepage</li> <li>- 2<sup>nd</sup> Page</li> </ul> </li> </ul>
Week 7:	<b>Lecture:</b> “What is JavaScript?”

	<b>Exercises:</b> <ul style="list-style-type: none"> <li>- HTML 5 Video</li> <li>- JavaScript plugins <ul style="list-style-type: none"> <li>- Lightbox</li> </ul> </li> </ul> <b>Homework:</b> <ul style="list-style-type: none"> <li>- Read Ch. 19</li> <li>- Code the following pages <ul style="list-style-type: none"> <li>- 3<sup>rd</sup> Page</li> <li>- 4<sup>th</sup> Page</li> </ul> </li> </ul>
Week 8:	<b>Lecture:</b> HTML5 Video & Filtering <b>Exercises:</b> <ul style="list-style-type: none"> <li>- Advanced CSS Help</li> <li>- JavaScript Plugins Help</li> </ul> <b>Homework:</b> <ul style="list-style-type: none"> <li>- Read Ch. 18</li> <li>- Code the following pages <ul style="list-style-type: none"> <li>- 5<sup>th</sup> Page</li> <li>- 6<sup>th</sup> Page</li> </ul> </li> </ul>
Week 9:	<b>Lecture:</b> Presentation of final project & Web hosting and FTP <b>Exercises:</b> <ul style="list-style-type: none"> <li>- 1:1 open lab help</li> </ul> <b>Homework:</b> <ul style="list-style-type: none"> <li>- Complete site</li> <li>- Prepare 5 - 7 minutes presentation</li> </ul>
Week 10:	<b>Present Final Projects</b>

### Submitting Questions:

If you are submitting questions, please do so through Canvas

### Helpful Resources

Much of the lectures and content for this course will involve utilizing the textbook. It is imperative you keep up with the reading assignments. Aside from the textbook here is a list of some very useful websites

- [CSS-Tricks](https://css-tricks.com/) (https://css-tricks.com/)
- [W3Schools](https://www.w3schools.com/) (https://www.w3schools.com/)
- [Can I use...](https://caniuse.com/) (https://caniuse.com/)
- [Ultimate CSS Gradient Generator](http://www.colorzilla.com/gradient-editor/) (http://www.colorzilla.com/gradient-editor/)
- [MDN Web Docs](https://developer.mozilla.org/en-US/) (https://developer.mozilla.org/en-US/)
- [Flexbox Guide](https://css-tricks.com/snippets/css/a-guide-to-flexbox/) (https://css-tricks.com/snippets/css/a-guide-to-flexbox/)
- [HTML Cheat Sheet](https://digital.com/tools/html-cheatsheet/) (https://digital.com/tools/html-cheatsheet/)

- [CSS3 Cheat Sheet](https://www.onblastblog.com/css3-cheat-sheet/) (https://www.onblastblog.com/css3-cheat-sheet/)
- [Front End Checklist](https://github.com/thedaviddias/Front-End-Checklist) (https://github.com/thedaviddias/Front-End-Checklist)