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

**Course Number**: DESIGN X455

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

**Instructor Name**: Lisa Tusberg

**Instructor’s emai**l: lisa.tusberg@berkeley.edu

**Day and class meeting time**: Thursdays 6:30-9:30 PM

**Room Number**: 502

**Semester and Year:** Spring 2019

**School Address:** 160 Spear Street, San Francisco, CA

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

**Required Course**: In the Professional Program in Graphic Design  
**Elective Course**: In the Professional Program in UX Design

**Honor Code**:

UC Berkeley Extension Honor Code: All members of the UC Berkeley Extension community are expected to act with honesty, integrity, and respect for others. For further information,please refer to:

• Tips for Maintaining My Academic Integrity

(<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 and 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 require 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 phases. Industry standard tools will be applied to this course including Sketch, Atom, 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.

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**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 Sketch
* Code web pages to create a website
* Learn about website optimizations 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 weeks lecture. The course is taught in a PC lab but personal laptops (macOS) are equally welcome in the classroom.

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**Required Text**

HTML5 the missing manual, by Matthew McDonald, OREILLY

Press: 2nd Edition (Copyright ©2014). ISBN-13: 978-1-4493-6326-0

**Materials**

* Access to a computer and internet access
* Access to web hosting. Github account. <https://github.com/>
* A Text editor, Atom will be preinstalled and highly encouraged <https://atom.io/>
* Access to the Sketch App: <https://www.sketchapp.com/> (free one month trial)
* Use of the Abstract plugin <https://sketchapphub.com/resource/abstract/>
* Personal storage either physical or cloud bases

**Process for Evaluation**

* Assignments: 60%
  + Weekly wireframe assignments
  + Prototype
  + Weekly coding assignments
* Participation: 10%
* Final Project: 30%

**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 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.

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**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 band website, however you should not be doing any asset creation which means no logos, album covers, pictures, 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.

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Progression of final project can be found here:

* Final Project Guide: https://github.com/wsfuller/html5-css3-class
* Final Project Demo: https://www.williamsfuller.com/projects/deftones-site/index.html

*Final Project Requirements:*

Your site should consist of the following pages

* Homepage
  + Requirements:
    - HTML5 video element
* About
  + Requirements:
    - Large text bodies
    - Importing image(s)
    - HTML Lists
    - HTML text tags
* Discography
  + Requirements
    - Create at least 3 albums with Cover, Title, Genre, Year, and full track listing
* Media
  + Requirements
    - Add 10 image with Lightbox Effect
    - Embed at least 3 YouTube videos
* Merch
  + Requirements
    - Add at least 5 items in 2 different categories
    - Implement Filtering of categories
* Tour Dates
  + Requirements
    - Create HTML Table with headers: Venue, Location, Date, Time, and Where to buy tickets
    - Must have link outs to venue and where to buys

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**Class Overview**

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| Week 1: | **Introductions:** Meet your classmates. Introduce yourself and tell the class a fun fact.  **Lecture:** Will be introduced to the final project and course overview. Brief introduction to HTML, CSS, and JavaScript. Web standards and specifications, where to get help and various resources available.  **Exercises:** You will be introduced to Atom and plugins we will use for development. You will create a brand new site directory with .html page(s). Sketch App Demo.  **Homework:** Identify the band in which you want to create a site for.  **Read Chapter 1**: *Your First Look at HTML Markup*. Pages 10-35.  **Read Chapter 2**: *Structuring Pages with Semantic Elements*. Pages 37-65  **Wireframe in Sketch App**: Design Low-Fidelity Wireframes focused on content.  Homepage, About, and Discography  Resource links:  <https://www.w3schools.com/css/css_intro.asp>  <https://www.w3schools.com/html/html_intro.asp>  <https://www.w3schools.com/js/js_intro.asp>  <https://www.w3.org/standards/webdesign/accessibility>  <https://validator.w3.org/#validate_by_uri+with_options> |
| Week 2: | **Lecture:** Deep dive into HTML5 with structure, tags, layouts, text, images, and links.  Optimizing images in Sketch for devices.  **Exercises:** We will be implementing various HTML5 tags, import images, learning how to optimize images and learning about URLs and linking. (jpg, gif, png, optimal sizes for images)  **Homework:** Create Final Project Directory containing all required pages and links to all pages.  **Read Chapter 3:** *Writing More Meaningful Markup*  **Wireframe in Sketch App**: Media, Merch, and Tour Dates. |
| Week 3: | **Lecture:** CSS building blocks, working w/ style sheets, defining selectors  **Exercises:**  Will be implementing CSS lecture components  **Homework:** Start designing your website. You will need to take your wire frames and start designing High-Fidelity Mockups focused on brand, theme, images, fonts, colors.  Homepage, About, and Discography pages**.**  **Read Chapter 7:** Responsive Web Design with CSS3 |
| Week 4: | **Lecture:** Discuss custom text, layouts, grid systems  **Exercises:** Understanding different ways to implement Text  **Homework: Chapter 6** Fancy Fonts with CSS 3  **Appendix A**: Essential CSS. Pages 435-449 |
| Week 5: | **Lecture:** Responsive web design with mobile first development, and discuss prototyping, enhancements with CSS3, and using Sketch  **Exercises:** We will be using CSS to create responsive elements and layouts.  We will be using Sketch to create a small interactive project  **Homework:** Create Sketch Prototype |
| Week 6: | **Present Prototypes**  **Lecture:** HTML Tables and Lists  <https://www.w3schools.com/html/html_tables.asp>  <https://www.w3schools.com/html/html_lists.asp>  **Homework:** Code out Tour Dates and About page  **Read Chapter 5** Audio & Video. |
| Week 7: | **Lecture:** Version control systems and using Git.  Discuss deployment process and different protocols. HTML Video  **Exercises:** Deploy our code to a GitHub repository and work with HTML5 videos  **Homework:** Code Homepage and Discography pages |
| Week 8: | **Lecture:** Discuss JavaScript, jQuery, and web hosting  **Exercises:** Install Lightbox and Filtering plugins  **Homework:** Code Merch Store and and Media pages. Obtain web hosting service. |
| Week 9: | **Lecture:** Discuss site deployment  **Exercises:** We will be working on getting our sites deployed and online  **Homework:** Make final adjustments to project and prepare to present for 5 - 7 minutes |
| Week 10: | **Present Final Projects** |

**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/)
* [W3Schools](https://www.w3schools.com/)
* [Can I use…](https://caniuse.com/)
* [Ultimate CSS Gradient Generator](http://www.colorzilla.com/gradient-editor/)
* [MDN Web Docs](https://developer.mozilla.org/en-US/)
* [Flexbox Guide](https://css-tricks.com/snippets/css/a-guide-to-flexbox/)
* [HTML Cheat Sheet](https://digital.com/tools/html-cheatsheet/)
* [CSS3 Cheat Sheet](https://www.onblastblog.com/css3-cheat-sheet/)
* [Front End Checklist](https://github.com/thedaviddias/Front-End-Checklist)