Media and Web Development - Fall 2018

ICOM-101-01 / MTEC-617-01
Wednesday : 2:00pm - 3:50pm : Main Building B214A (Machine Lab)
Course Credit: 2.0

Instructor: Dexter Shepherd
Office hours: By appointment
Email: dextershepherd@calarts.edu
TA Time: M/T/F : 6pm - 8pm : Machine Lab

Course Description

This course provides an introduction to practical web development for artists.
Each student will learn the basics of HTML and CSS, and how to combine them into a functioning portfolio website. Students will learn how to work with rich media sources, create dynamic animations, and deploy content to the web using free and open source tools. The final project in this course is to have a personal website up and running.

Student Learning Outcomes

- Students will learn the tools and technologies behind modern front end web development.
- Students will gain the skills needed to represent themselves and their practice through the web.

Materials

- Equipment
    - A computer with internet access
- Software
  we will install these together as the course progresses
    - A programming focused text editor of your choice (I recommend VSCode, Atom, or Sublime Text)
    - A modern web browser (Google Chrome, Firefox, Safari, Microsoft Edge)
    - Node.js

Expected expenses

Purchasing a domain name to use as your website URL is an optional, but strongly encouraged part of this course.
Domain name costs vary depending on TLD (.com, .me, .party, etc) and some other factors, but most personal
website domains come in at under $10 per year.

Schedule

Schedule is subject to change at any time

Week 1 - 9/12

- Welcome
- Go over syllabus
- Web fundamentals
- Fill out course info cards

Week 2 - 9/19

- Introduction to HTML
    - Elements and Tags and attributes
        - Typography
            - `h1` - `h6`
            - `p`
            - `em` and `strong`
        - Layout
            - `div`
            - `section`, `article`, `figure`, `nav`
        - links and images
            - `a` and `href`
            - `img`
    - Using codepen
    - Making structured text documents

Homework

- Make an account on codepen
- Design and code a "document" with html on codepen
    - Think about creating a Resume or CV, a simple flier for an event, liner notes for an album, or credits for a film. Go as far and be as creative as you like.
    - Make sure to use different heading levels with h1 through h6 tags (at least 2 different heading levels)
    - use the p tag to format text into paragraphs
    - divide your content into sections with `div`, `section`, or `article` tags
    - add emphasis with `em` and `strong` tags
    - Extra Credit : Use an `a` tag to link to another website
    - Extra Credit : Use an `img` tag to display an image

Week 3 - 9/26

- Introduction to CSS
    - Selectors
        - Tag
        - Child and sibling selectors
        - Class and ID attributes

        - Color
            - Web colors
            - Hex codes
            - `rgba()`
        - Font
            - System
            - Web fonts
            - loading from Google fonts
        - Positioning with CSS Box Model
            - `padding`, `margin`, `border`

Homework

- Fork your assignment from last week (or start a new project if you like)
- Add some CSS to style your HTML
    - Use the CSS Box model to add `padding`, `margin`, or `border` styles to an element
    - Change the `color` or `background-color` of an element
    - Change the font of an element from the default
        - Extra credit : Load a font from google fonts
    - Use at least one `class` attribute to selectively style some HTML
- If you didn't last week, add an `img` and `a` tag to your document

Week 4 - 10/3

- Advanced CSS
    - Positioning and layout
        - Flex Box
        - CSS Grid
    - Background Images
        - Gifs
        - Videos
    - Psuedo-selectors
        - `:hover`
        - `:active`
        - `:visitied`
    - Embedded content
        - Vimeo/Youtube
        - Soundcloud / Bandcamp
    - Gradients

    - Transitions and Animations

Homework
The things we learned in class this week are a little less linear, so for this assignment feel free to break away from the `styled text document` idea we have been working with. Try making a landing page, a looping animation, or just experiment and play with every we've learned so far.

Not all techniques will be relevant to all projects, try to use at least 2 of the things we learned this week. Plus anything else you are excited about.

- Use `flex` or `grid` in your layout
- Use a css gradient, or the `background-image` to add detail
- Use a pseudo-selector to add conditional styling to some part of your site
- Use a CSS transition to animate an element on `:hover`
- Add a CSS animation to your site

Week 5 - 10/10

- Leaving Codepen!
    - Installing and using a text editor
    - File Structure
        - unix path syntax
    - The stuff codepen hides
        - `head` and `body` tags
        - `style` tag
    - Installing Node.js
        - Running a development server
    - Using devtools
- Go over content for the quiz

Homework

- Migrate one of the last two assignments (something with both HTML and CSS) out of codepen.
    - Create an index.html file and a style.css file
    - Link your style.css file to the index.html with a `style` tag inside the `head` element of your html
- Submit your work as a .zip file containing both your html and css files

Week 6 - 10/17

- Quiz
    - Does not count towards your course grade
    - Progress check for everyone so we can revisit problem areas

- Deployment
    - Github Pages
    - Dropbox
    - Netlify
    - Surge.sh
- Buying and linking domains

Homework

- Deploy one of your projects to the web
- Extra credit : Purchase and link a custom domain

Week 7 - 10/24

From this point onwards the schedule is more open, depending on the results of the quiz we may revisit some older material, or push forward and focus on whatever everyone is excited about

- Responsive Web Development
    - Responsive / Mobile First design
    - Media Queries
    - CSS Frameworks (Bootstrap / Material)
- Testing for mobile
    - Dev tools
    - Simulator
    - Mobile debugging with Safari
    - NGrok

Homework
Work on your final site. If you want to expand on your previous assignments, GO FOR IT! If you want to start something new, this is a good time to spin that up.

Week 8 - 10/31

- Basic Javascript
    - Selecting elements with jquery
    - listening for events (click, hover, key press)
    - animation (jquery or anime.js)

Homework
Continue working on your final site.

Week 9 - 11/7

- Open period
    - Dig further into topics that are interesting
    - More Javascript if needed

Homework
Continue working on your final site.

Week 10 - 11/14

- Workshop time
    - Free work period to make progress with your final projects
    - Time to dig into specific issues and go over any key points we missed during the semester
- Address road blocks before thanksgiving break

Homework
Continue working on your final site.

Week 11 - 11/28

- Present final projects

Week 12 - 12/5

- Present final projects

Course Policies

All coursework in this course will be graded individually, with a focus on the students progression and growth.
Technical assignments will have clearly marked grading criteria. Each of which must be completed to receive full credit. Where possible, assignments will include extra credit criteria to encourage experimentation and risk taking.
The final project, and the work weeks associated with it, will be graded in the context of the course at large, and the students personal goals.

Final grades will be based on the following breakdown

- Attendance: 25% - 3 absences will yield an NX grade for the course.
- Assignments: 50%
- Final Project: 25%

Units

- Undergraduate students should be committing a total of 6 hours per week, including lectures.
- Graduate students should be committing a total of 8 hours per week, including lectures.
- Time spent outside of class constitutes researching, planning, and executing assignments

In-Class Behavior

Inappropriate, aggressive, or offensive behavior or language, or provocation of conflict will not be tolerated in this class.
If something about the class is making you uncomfortable, please contact your instructor immediately.

Institute Policies

Plagiarism: Plagiarism is the use of ideas and/or quotations (from the Internet, books, films, television, newspapers, articles, the work of other students, works of art, media, etc.) without proper credit to the author/artist. While the argument in a paper can be enhanced by research, students are cautioned to delineate clearly their own original ideas from source material. Students should introduce source material (either quoted or paraphrased); note when the source material ends; and provide citations for source materials using standard documentation formats.

According to CalArts policy, students who misrepresent source material as their own original work and fail to credit it have committed plagiarism and are subject to disciplinary action, as determined by the faculty member, the dean of the student's school and the Office of the Provost. If you have questions regarding plagiarism or would like direction on how to credit source material, there are reference guides on permanent reserve in the CalArts library. Please contact one of the CalArts reference librarians for more information.

These ideas are just as viable in the world of computer programming. If you use code written by someone else, you must provide attribution by including an authors name and/or url in your code comments!

Students with Disabilities: Students who have documented disabilities and who want to request accommodations should first go to the Student Affairs office in A207. The Office of Student Affairs will meet with students and communicate with their faculty about appropriate classroom accommodations. Students are encouraged to use these procedures early in the semester, so that the proper arrangements can be in place throughout the course.