

Arts, Technology and the Business of Innovation

Acad275: Dev 1

4 Units Tuesdays / Thursdays 2 – 4:50 p.m. IYH210 Spring 2022

Website: http://iyawebdev.com/acad275a

Instructor: Patrick Dent

Office: Online (and in IYH210)

Office Hours See course site for scheduled hours

And by appointment

Contact Info: dent@usc.edu / 213-821-1400

Note: Email is the preferred method of contact. I will typically respond with 24 hours (M - F).

Grader: Vidhi Mehta <vidhitus@usc.edu>

IT Help: https://uscedu.sharepoint.com/sites/IYAStudent/SitePages/IT-Resources.aspx

Hours of Service: 8:30am – 6:30pm Contact Info: iya.helpdesk@usc.edu

Course Objective

Whether Twitter, Facebook, Google Maps, or Dropbox, the vast majority of cutting-edge software applications are now developed on the Web. Because of this, being able to develop websites scripting is a core competency that any innovative technologist must understand.

Student will learn the basics of web page creation and web objects, scripting and interactivity. By the end of the course students will not only have the skills to build an interactive web site but will have a solid foundation in scripting fundamentals.

Course Concepts

This course teaches JavaScript to provide an extremely interactive introduction to the logic of coding. It combines the programming with HTML/CSS, so that upon completion students will be able to create dynamic websites.

This course is intended to cover the basic technologies involved in publishing web pages and sites. This includes:

- HTML
- CSS
- Dynamic (DHTML) and beginner Javascript

This class will also introduce students to web objects and scripting including:

- Fundamental scripting and programming concepts
- The Javascript and jQuery languages
- Manipulating and adding interactivity to web objects

Grading

The following percentage breakdown will be used in determining the grade for the course.

| Assignments | 30% |
|------------------------|------|
| Participation and labs | 15% |
| Examinations | 20% |
| Major Group Project | 35% |
| Total | 100% |

Grading Scale

The following shows the grading scale to be used to determine the letter grade.

| 100-94 |
|-------------|
| 94-90 |
| 90-87 |
| 87-83 |
| 83-80 |
| 80-77 |
| 77-73 |
| 73-70 |
| 70-67 |
| 67-64 |
| 64 or below |
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Group Project Timeline

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|--------------------|-----------|-----------------------|--|
| Due Week 12 | Milestone | Design concepts | |
| Due Week 14 | Milestone | Content Build | |
| Due end of Week 15 | Milestone | Final Technical Build | |

Course Structure

Students are expected to:

- Participate in lecture discussions, demo builds and critiques
- Complete weekly lab assignments and projects
- Manage and complete individual class projects

Students are responsible for completing assignments and projects by stated deadlines. Most assignments will be uploaded by students to their USC Web space and linked from an assignment page.

Policies

No make-up exams (except for documented medical or family emergencies).

Due dates and requirements for all Labs and Assignments will be posted on the course site. Students will "post" their work to their USC web space as defined on the course site.

It if the student's responsibility to post work by the due date following the defined class procedures, even if you miss class. Work turned in late will lose 10% credit per day and late work is not accepted after two weeks past the due date. To receive credit for late work you MUST email the grader that you posted a lab or assignment after the due date or you will not receive credit.

An attendance sheet will be circulated each lecture. You must sign in for lecture to receive lecture attendance credit.

Academy Student Attendance Policy

The Academy maintains rigorous academic standards for its students and on-time attendance at all class meetings is expected. Each student will be allowed two excused absences over the course of the semester for which no explanation is required. Students are admonished to not waste excused absences on non-critical issues, and to use them carefully for illness or other issues that may arise unexpectedly. Except in the case of prolonged illness or other serious issue (see below), no additional absences will be excused. Each unexcused absence will result in the lowering of the final grade by 1/3 of a grade (e.g., an A will be lowered to A-, an A-will be lowered to B+, etc.).

Students remain responsible for any missed work from excused or unexcused absences. Immediately following an absence, students should contact the instructor to obtain missed assignments or lecture notes and to confirm new deadlines or due dates. Extensions or other accommodations are at the discretion of the instructor.

Automatically excused absences normally may not be used for quiz, exam or presentation days. Using an excused absence for a quiz, exam or presentation, such as in the case of sudden illness or other emergency, is at the discretion of the instructor.

In the case of prolonged illness, family emergencies, or other unforeseen serious issues, the student should contact the instructor to arrange for accommodation. Accommodation may also be made for essential professional or career-related events or opportunities. All accommodations remain at the discretion of the instructor, and appropriate documentation may be required.

Spring 2022 addendum:

- · Unless students provide an accommodation letter from USC's Office of Student Accessibility Services or a letter from IYA Student Services detailing visa or travel restrictions, attendance and active participation is expected in the classroom. Any student with such accommodations should submit their accommodation document to the instructor as soon as possible to discuss appropriate accommodations. Either classroom recordings or live remote access to the class via Zoom will be provided.
- · Students who are experiencing illness should not attend class in person. Please inform the instructor in advance of any class sessions that you can't attend for medical reasons, and accommodations will be arranged to view recorded lectures and submit alternatives to any missed class participation. Students will not be penalized for not attending class in person under these circumstances.
- · In the event that you find yourself experiencing COVID-19 related symptoms, in keeping with university recommendations, you should Stay home! This is the best way to prevent spreading COVID-19 as supported by scientific evidence; Please do not come to an in-person class if you are feeling ill, particularly if you are experiencing symptoms of COVID-19

HOW TO PURCHASE SOFTWARE AT THE DISCOUNTED ACADEMY RATE:

The following software are available for purchase **online** at the Iovine and Young Academy discounted rate

| <u>Software</u> | IYA Short-Term License |
|----------------------|--|
| Adobe Creative Cloud | \$70 2021-2022 annual license (active through July 2022) |

To purchase:

- Visit: https://commerce.cashnet.com/IOVINE
- Select the software license(s) you would like to purchase by clicking "View Details" or the software title, and make your purchase
- You will receive an order confirmation receipt at the email address you provided
- You will be notified by email when the software license has been activated

If you have any questions about this process, please do not hesitate to contact Academy IT Support at iya.helpdesk@usc.edu.

Course Schedule: A Weekly Breakdown

| Week 1a | Jan 10 | Course introduction. Overview of the Internet and the World Wide Web and related technologies. Introduction to HTML. FTP and 'uploading' files to a server. <i>Lab:</i> FTP to aludra, set up directories and permissions, upload image (due W1b) |
|---------|--------|---|
| Week 1b | Jan 12 | Basic HTML objects and tags. Images. Lab: Classpage (due W2a) Assignment: Tutorial Page (due W2a) |
| Week 2a | Jan 17 | Review of Basic HTML, 'Good code.' Intro to CSS, styles and stylesheets. Assignment: Resume (due W2b) |
| Week 2b | Jan 19 | Style review. "Divs", layout and the "box" model Remote and local files. Folder structures. Lab: Calendar (due W3a) Assignment: Film Article (due W3a) |
| Week 3a | Jan 24 | CSS Part 2: Stylesheet review, Graphic css, "caniuse.com", Display, position, max- and min-, visibility. Drop-down nav. Intro to Flexbox Lab: Flexbox nav (due W3b) Project: Individual site project proposal (due 3b) |
| Week 3b | Jan 26 | Creating re-usable CSS classes. HTML Form objects. Assignment: Survey (due W4a) Project: Individual project HTML Front build (due W5b) |
| Week 4a | Jan 31 | CSS3: position (con't), display (con't), opacity, columns, embedded fonts, background image compositing, transitions. Assignment: Interactive Article (due W4b) |
| Week 4b | Feb 02 | CSS3 review: background compositing, transitions. HTML Review. Exam prep. Introduction to IA, Web design, color issues, <i>Lab:</i> Practice exam (due W5a) |
| Week 5a | Feb 07 | HTML Examinations |

| Week 5b | Feb 09 | Introduction to Responsive Web Design, media queries Introduction to CSS frameworks, libraries, Bootstrap Using a 'visual editor', introduction to Dreamweaver Updated HTML5 "skeleton". H5 structural/semantic tags. <i>Lab:</i> Print stylesheet (due W6a) <i>Lab:</i> Frontpage design notes (due W6a) Assignment: Responsive film review (due W6b) |
|----------|------------|--|
| Week 6a | Feb 14 | Etiquette and basics of design critiques. Critique. Assignment: Peer critiques of frontpages (due W6b) |
| Week 6b | Feb 16 | HTML media tags. iFrames and embedded video. Image maps. Image sprites. <i>Lab:</i> Frontpage "alternate" style tiles (due W7a) |
| Week 7a | Feb 21 | Introduction to concepts in Dynamic HTML. Introduction to web objects, object-oriented scripting basics. Introduction to Javascript syntax and the DOM Assignment: Build a Javascript color setter (due W7b) |
| Week 7b | Feb 23 | Variables, Expressions, Functions Lab: Function lab (due W8a) Assignment: Calculator app (due 8b) Assignment: Individual Project Milestone: Content Build (due W10b) |
| Week 8a | Feb 28 | Review of functions. Conditional Logic. <i>Lab:</i> JS TV form page (due 8b) |
| Week 8b | Mar 02 | Review of Conditional Logic. Introduction to jQuery Lab: Add jQuery to a college page (due W9a) Lab: Add jQuery to a resource page (due W9a) |
| Week 9a | Mar 07 | jQuery fundamentals Assignment: Interactive Photo Gallery (due W10a) |
| Week 9b | Mar 09 | Review of JS vs jQ syntax Intro to Dyanmic Documents. Intro to working with external scripts and plug-ins. Lab: Implement a slideshow plug-in (due W10b) |
| | Mar 14, 16 | Spring Recess |
| Week 10a | Mar 21 | Review of Dynamic Documents, Intro to Arrays Assignment: Random photo page (due W10b) |

| | | Assignment: Individual Project: Final Build (due W12a) |
|----------|--------|---|
| Week 10b | Mar 23 | Array review, Data validation Lab: Email validation (due W11a) Assignment: Dog photo page (due 11b) |
| Week 11a | Mar 28 | Regular Expressions, Loops Lab: Re-structuring data (due W11b) Assignment: Designs for Group Project (due W11b) |
| Week 11b | Mar 30 | Searching through Arrays Intro to source contro, github Assignment: Dynamic bookmark data page (due W12B) Lab: Github group repo (due W12a) Group Assignment: Group critique prep (due 12a) |
| Week 12a | Apr 04 | Group Projects Design critique. jQuery and Javascript review. Exam prep. Group Project: Content Build (due W14a) Group Project: Technical Proposal (due W14a) Group Project: Final Build (due end of W15) |
| Week 12b | Apr 06 | JS Examinations |
| Week 13a | Apr 11 | Scripting media. jQuery animation. <i>Lab:</i> Web animation (due W14a) |
| Week 13b | Apr 13 | Data storage, timers |
| Week 14a | Apr 18 | JS Data Objects, JSON |
| Week 14b | Apr 20 | Calling data APIs |
| Week 15a | Apr 25 | Special Topics (TBA) |
| Week 15b | Apr 27 | Web technologies overview, The Web development industry, Next-generation development |
| | Apr 28 | GROUP Project Final Build posted by 11:59pm |

Student Presentations of Group Projects

May 04

Statement on Academic Conduct and Support Systems

Academic Conduct:

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Part B, Section 11, "Behavior Violating University Standards" policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on Research and Scholarship Misconduct.

Students and Disability Accommodations:

USC welcomes students with disabilities into all of the University's educational programs. The Office of Student Accessibility Services (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at osas.usc.edu. You may contact OSAS at (213) 740-0776 or via email at osasfrontdesk@usc.edu.

Support Systems:

Counseling and Mental Health - (213) 740-9355 – 24/7 on call studenthealth.usc.edu/counseling Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

National Suicide Prevention Lifeline - 1 (800) 273-8255 - 24/7 on call suicidepreventionlifeline.org Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-9355(WELL), press "0" after hours – 24/7 on call studenthealth.usc.edu/sexual-assault

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office for Equity, Equal Opportunity, and Title IX (EEO-TIX) - (213) 740-5086 eeotix.usc.edu Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298 uscadvocate.symplicity.com/care_report

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

The Office of Student Accessibility Services (OSAS) - (213) 740-0776 osas.usc.edu OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

USC Campus Support and Intervention - (213) 821-4710 campussupport.usc.edu Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity, Equity and Inclusion - (213) 740-2101 diversity.usc.edu Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 - 24/7 on call dps.usc.edu, emergency.usc.edu Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call dps.usc.edu Non-emergency assistance or information.

Office of the Ombuds - (213) 821-9556 (UPC) / (323-442-0382 (HSC) ombuds.usc.edu

A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

Occupational Therapy Faculty Practice - (323) 442-3340 or otfp@med.usc.edu chan.usc.edu/otfp Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.