

# Coding I

## ACAD 275 (4 Units)

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**USC** Jimmy Iovine  
and Andre Young  
Academy

**Course 10209, Spring 2017**

### 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.

### 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 all of the basic technologies involved in publishing web pages and sites. This includes:

- HTML
- CSS
- DHTML

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

### Prerequisites

None.

### Instructor

Patrick Dent

### Contact

[dent@usc.edu](mailto:dent@usc.edu) / OHE530D / 213-821-1400

### Office Hours

T/Th 3:30-4:30pm in SKS404  
*And by appointment*

### Grader

Zhongyang Gao ([zhongyag@usc.edu](mailto:zhongyag@usc.edu))

### Website

<http://webdev.usc.edu/acad275>

### Required Textbooks

None

## Grading

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

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

## Grading Scale

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

A	100-93
A-	92-90
B+	89-87
B	86-83
B-	82-80
C+	79-77
C	76-73
C-	72-70
D+	69-67
D	66-65
F	64 or below

## Course Structure

Students are expected to:

- Participate in lecture discussions 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) will be offered nor will there be any changes made to the Final Exam schedule, except as permitted by university rules.

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 is 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.

## Incomplete and Missing Grades

Excerpts for this section have been taken from the University Grading Handbook, located at <http://www.usc.edu/dept/ARR/grades/gradinghandbook/index.html>. Please see the link for more details on this and any other grading concerns.

A grade of Missing Grade (MG) “should only be assigned in unique or unusual situations... for those cases in which a student does not complete work for the course before the semester ends. All missing grades must be resolved by the instructor through the Correction of Grade Process. One calendar year is allowed to resolve a MG. If an MG is not resolved [within] one year the grade is changed to [Unofficial Withdrawal] UW and will be calculated into the grade point average a zero grade points.

A grade of Incomplete (IN) “is assigned when work is no completed because of documented illness or other ‘emergency’ **occurring after the twelfth week** of the semester (or 12<sup>th</sup> week equivalency for any course scheduled for less than 15 weeks).”

## Students with Disabilities

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to your course instructor (or TA) as early in the semester as possible. If you need accommodations for an exam, the form needs to be given to the instructor at least two weeks before the exam.

DSP is located in STU 301 and is open from 8:30am to 5:00pm, Monday through Friday. Contact info: 213-740-0776 (Phone), 213-740-6948 (TDD only), 213-740-8216 (FAX), [ability@usc.edu](mailto:ability@usc.edu), [http://sait.usc.edu/academicsupport/centerprograms/dsp/home\\_index.html](http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html).

## Emergency Preparedness/Course Continuity in a Crisis

In case of emergency, when travel to campus is difficult, if not impossible, USC executive leadership will announce a digital way for instructors to teach students in their residence halls or homes using a combination of the Blackboard LMS (Learning Management System), teleconferencing, and other technologies. Instructors should be prepared to assign students a “Plan B” assignment that can be completed ‘at a distance.’ For additional information about maintaining your classes in an emergency, please access: <http://cst.usc.edu/services/emergencyprep.html>

## 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 Section 11, *Behavior Violating University Standards* <https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct/>.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* <http://equity.usc.edu/> or to the *Department of Public Safety* <http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us>. This is important for the safety whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* <http://www.usc.edu/student-affairs/cwm/> provides 24/7 confidential support, and the sexual assault resource center webpage [sarc@usc.edu](mailto:sarc@usc.edu) describes reporting options and other resources.

Examples of behavior violating University standards:

- The submission of material authored by another person but represented as the student's own work, whether that material is paraphrased or copied in verbatim or near-verbatim form.
- Acquisition of term papers or other assignments from any source and the subsequent presentation of those materials as the student's own work, or providing term papers or assignments that another student submits as his/her own work.
- Obtaining for oneself or providing for another person a solution to homework, a project or other assignments, or a copy of an exam or exam key without the knowledge and expressed consent of the instructor.
- Unauthorized collaboration on a project, homework or other assignment. Collaboration between students will be considered unauthorized unless expressly part of the assignment in question or expressly permitted by the instructor.

If the instructor, a grader, or a lab assistant suspects you of academic dishonesty, it has to be reported to SJACS. Do not share lab assignments with another student. Do not submit another student's work as your own. Do not look at other students' papers during exams. Do not leave the room during an exam. Do not cheat! As Trojans, we are faithful, scholarly, skillful, courageous, and ambitious.

### Support Systems

A number of USC’s schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* <http://dornsife.usc.edu/ali>, which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs* [http://sait.usc.edu/academicsupport/centerprograms/dsp/home\\_index.html](http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html) provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* <http://emergency.usc.edu/> will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.

# Coding 1: Web Publishing and Development

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## Course Outline

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. <b>Lab:</b> FTP to aludra, set up directories and permissions, upload image (due W1b – 1/12)
Week 1b	Jan 12	Basic HTML objects and tags. Images. <b>Lab:</b> Classpage (due W2a -- 1/19) <b>Assignment:</b> Tutorial Page (due W2a -- 1/17)
Week 2a	Jan 17	Review of Basic HTML, 'Good code.' Intro to CSS, styles and stylesheets. <b>Lab:</b> Calendar (due W2b -- 1/19) <b>Assignment:</b> Resume (due W2b -- 1/19)
Week 2b	Jan 19	Style review. "Divs", layout and the "box" model Remote and local files. Folder structures. <b>Assignment:</b> Film Article (due W3a -- 1/24)
Week 3a	Jan 24	CSS Part 2: Stylesheet review, Graphic css and " <i>caniuse.com</i> ", Display, position, max- and min-, visibility. Drop-down nav. <b>Lab:</b> Zen Garden (due W3b – 1/26) <b>Project:</b> Individual site project proposal (due 3b – 1/26)
Week 3b	Jan 26	Creating re-usable CSS classes. HTML Form objects. <b>Assignment:</b> Survey (due W4a – 1/31) <b>Project:</b> Individual project HTML Frontpage build (due W5b -- 2/9)
Week 4a	Jan 31	CSS3: position, opacity, display revisited, embedded fonts, columns, background image compositing, transitions. <b>Assignment:</b> Interactive Article (due W4b – 2/2)
Week 4b	Feb 02	CSS3 review: background compositing, transitions. HTML Review. Exam prep. Introduction to IA, Web design, color issues, Wire framing and style tiles <b>Lab:</b> Practice exam (due W5a -- 2/7)

Week 5a	Feb 07	<b>HTML Examinations</b>
Week 5b	Feb 09	Using a 'visual editor', General introduction to Dreamweaver Updated HTML5 "skeleton". HTML5 structural/semantic tags. HTML media tags. iFrames and embedded video. Image maps. Image sprites. <b>Assignment:</b> Peer critiques of frontpages (due W6a – 2/14) <b>Lab:</b> Frontpage "alternate" style tiles (due W6a – 2/14) <b>Lab:</b> Sprite graphic (due W6a -- 2/14)
Week 6a	Feb 14	Introduction to Responsive Web Design, media queries <b>Lab:</b> Print stylesheet (due W6b – 2/16) <b>Assignment:</b> Responsive film review (due W7a – 2/16)
Week 6b	Feb 16	TBA <b>Project:</b> Responsive frontpage/homepage (due W8a – 2/28)
Week 7a	Feb 21	Introduction to concepts in Dynamic HTML. Introduction to web objects. Object-oriented scripting basics. Intro to working with external scripts and plug-ins. <b>Lab:</b> Interactive info page (due W7b -- 2/23)
Week 7b	Feb 23	Introduction to jQuery <b>Lab:</b> Implement a slideshow plug-in (due W8a – 2/28) <b>Lab:</b> Add jQuery to a form (due W8a – 2/28) (Tentative) <b>Group Project:</b> EC2 group "pitch" website (due TBA / mid- to late-March)
Week 8a	Feb 28	jQuery fundamentals <b>Assignment:</b> Interactive Photo Gallery (due W8b – 3/2)
Week 8b	Mar 02	Introduction to Javascript syntax and the DOM <b>Assignment:</b> Build a Javascript color setter (due W9a -- 3/7)
Week 9a	Mar 07	Variables, Expressions, Functions <b>Lab:</b> Function lab (due W9b – 3/9) <b>Assignment:</b> Calculator app (due W10a – 3/21)
Week 9b	Mar 09	Conditional Logic, Editing Style Properties <b>Lab:</b> Edit CSS properties of web objects (due W10a – 3/21)
	Mar 14, 16	<i>Spring Break</i>
Week 10a	Mar 21	

Week 10b	Mar 23	Arrays, Dynamic Documents <b>Assignment:</b> Random photo page (due W11a -- 3/28)
Week 11a	Mar 28	Data validation <b>Lab:</b> Email validation (due W11b -- 3/30) (Tentative) <b>Group Project:</b> C.S. group business website (due TBA)
Week 11b	Mar 30	Regular Expressions, Loops <b>Lab:</b> Re-structuring data (due W12a -- 4/4)
Week 12a	Apr 4	Searching through Arrays <b>Assignment:</b> Dynamic bookmark data page (due W13a -- 4/11)
Week 12b	Apr 6	Scripting media. jQuery animation. Using other libraries <b>Lab:</b> Web animation (due W10b -- 4/11)
Week 13a	Apr 11	jQuery and Javascript review. Exam prep. <b>Project:</b> Group Project Technical Proposal (due W14a -- 4/18)
Week 13b	Apr 13	<b>JS Examinations</b>
	TBA	<i>Object detection, return, Window and document objects, Dynamic form objects revisited <b>Lab:</b> Build a computer (due W13b -- 4/18)</i>
Week 14a	Apr 18	JS Data Objects, JSON
Week 14b	Apr 20	Ajax (tentative). Cookies. Timers. <b>Lab:</b> Build a cookie-driven page (due W15a -- 4/25)
Week 15a	Apr 25	Special Topics (TBA)
Week 15b	Apr 27	Web technologies overview, The Web development industry, Next-generation development
(Tentative)	<b>Apr 28</b>	<b>GROUP Project Final Build posted by 6pm</b>
	May 4	<i>Student Presentations of Group Projects</i>