

CS193C: Client-Side Internet Technology

Dr. Patrick Young

Summer 2014

Welcome to CS193C. This class will focus on client-side Internet technology including HTML, Cascading Style Sheets, JavaScript, and AJAX. We will also briefly discuss website design and use of graphics and multimedia on the web. The complete schedule of topics and lectures can be found at the end of this document.

Course Staff & Office Hours

Lecturer:	Dr. Patrick Young Gates 194 Office Hours: Tuesday 5:15-6pm, Thursday 5:30-6:15pm Office Phone: (650) 723-6090 E-Mail: patrick.young at stanford.edu Please do <u>not</u> leave me voice mail—use e-mail or post on Piazza instead.
Teaching Assistants:	Hugh Cunningham Office Hours: TBD E-Mail: hughec at stanford.edu Victoria Flores Office Hours: TBD E-Mail: vflores3 at stanford.edu Yuke Zhu Office Hours: TBD E-Mail: yukez at stanford.edu

We will be using the Piazza bulletin board system. The fastest way to get class help is to post on Piazza, as all four of us will be monitoring it regularly. If in doubt on whether or not your post is relevant or appropriate for other class members, you may post a private message on Piazza.

Grading

Midterm	30%
Final Quiz	10%
4 Homework Assignments	60% (at 15% each)

Course Assignments

Late Policy

Assignments turned in late will be penalized 10% for each day which has passed since the original due date. No assignment may be turned in more than a week after its original due date and no assignments will be accepted after midnight the evening of Friday August 15th.

I realize that you do have other classes and other responsibilities. Therefore, you will be given a late allowance of three late days can be used to excuse late assignments. This allowance may be used for a single assignment or it may be divided for use on multiple assignments. For example, if you turn in one assignment three days late, you've just used up your entire late allowance. However, if instead you turn in the assignment two days late you still have an additional late day which you can use for another assignment. To take advantage of a late day, send an e-mail to your teaching assistant that you wish to use your late assignment allowance.

Please remember that you are working under the Stanford Honor Code. If you are working on a late assignment you must not discuss the assignment with other students and you may not look at any published solutions until after the assignment is turned in.

Collaboration

All of the assignments should be done alone. The official policy on how much collaboration is allowed on the assignments is specified in a separate handout entitled "Computer Science and the Stanford Honor Code". Please make sure you read it.

Copying Code

Learning HTML, CSS, and JavaScript by studying the source code of other web pages is an accepted practice within the Internet community. I encourage you to look at the HTML, CSS, and JavaScript source of any interesting pages you happen to see. However, you should not copy the code verbatim for class assignments. I recommend looking at the source, trying to understand how it works, then hiding the source and trying to reproduce it on your own based on your new understanding. If you can't reproduce it without looking at the code, you clearly don't understand it yet. Feel free to come talk to me or the teaching assistant, and we'll try and help you out.

Editors

A number of editors exist for editing HTML, CSS, and JavaScript source code. Check the rules on each assignment for what is allowed. You may not use a WYSIWYG (What You See is What You Get) editor such as Dreamweaver unless the assignment explicitly gives you permission.

Exams

The midterm will be Thursday, July 31st from 6:30-10:30pm. The midterm will focus on programming and the actual practice of getting a JavaScript-enhanced webpage working. In place of a final we will have a final quiz worth 10% of your final grade. This quiz is scheduled for Saturday, August 16th at 7pm. The final quiz will focus on theory and terminology as well as material covered after the midterm.

If you cannot attend an exam for any reason, you must notify and receive approval from me *at least* a week in advance. In addition, you must have an alternative exam time scheduled *before* the actual exam. If either of these conditions is not met, I reserve the right to either reduce your score or give you a zero on the exam. Please note that in general requests for alternate exams will be denied, you will need a very good excuse to take the exam outside of the regularly scheduled time.

Local SCPD students are expected to come on campus for the final.

Software

Unfortunately different World Wide Web browsers treat both HTML and JavaScript differently. Because supporting versions of Internet Explorer involves a great deal of specialized work, while I will be teaching some of the techniques to support IE, you will not be required to support it on assignment. Instead in order to get you used to testing on and supporting multiple web browsers and we will have you use Chrome and Firefox. Please get the latest (non-beta) versions of these browsers. Check individual assignments for browser requirements.

Course Materials

Web references will generally be sufficient to learn Client-Side Programming. I will be providing links to relevant resources on Piazza.

If you're looking for more extensive material, in general, I recommend the O'Reilly Media books. Stanford has a license providing access to online-versions of O'Reilly books. They can be accessed from:

<http://proquest.safaribooksonline.com/>

Please note that our license only provides for an extremely limited number of users who can access these online books from Stanford simultaneously.

Those accessing from off campus will need to use Stanford's Proxy Server. Information on the Proxy Server can be found here:

<http://library.stanford.edu/using/connect-campus>

The Class Web Site

The class website can be found at:

<http://cs193c.stanford.edu/>

The class website will include announcements, handouts, assignment support materials, and links to web sites related to material covered in class.

Piazza Discussion System

We will be using the Piazza online discussion system. Signup for Piazza at:

<http://piazza.com/stanford/summer2014/cs193c>

Tentative Class Schedule

This is a tentative class schedule.

Lecture 1: Introduction & Basic HTML (Week 1, June 24)

Course Administration, Client-Side Processing, Basic HTML

Lecture 2: HTML & CSS (June 26)

HTML, CSS, the HTML5 Specification, Standard CSS Float Layout, Alternatives

Lecture 3: HTML, CSS, and CSS Layout (Week 2, July 1)

Continued discussion on HTML and CSS, Mobile Web Layout

Lecture 4: HTML, CSS, JavaScript (July 3)

Closing comments on HTML & CSS. Introduction to JavaScript.

Lecture 5: JavaScript & DOM (Week 3, July 8)

JavaScript Basics, Working with the Document Object Model

Lecture 6: JavaScript Events (July 10) *Assignment 1 Due*

Basic Events, W3C and IE-Specific Events

Lecture 7: JavaScript Debugging (Week 4, July 15)

Debugging Techniques

Lecture 8: JavaScript & CSS (July 17) *Assignment 2 Due*

Using JavaScript to Access and Modify CSS Properties

Lecture 9: More JavaScript & CSS (Week 5, July 22)

Lecture 10: AJAX (July 24)

AJAX, Using the XMLHttpRequestObject, Miscellaneous JavaScript

Lecture 11: Website Design, High-Performance Websites (Week 6, July 29)

General Website Design Principles

Midterm (July 31, 6:30-10:30pm) *Assignment 3 Due*

No lecture.

Lecture 12: JQuery, Twitter Bootstrap, Angular.js, ... (Week 7, August 5)

Lecture 13: More JQuery, Twitter Bootstrap, Angular.js, ... (August 7)

Lecture 14: Node.js (Week 8, August 12)

Lecture 15: TBD (August 14) *Assignment 4 Due*

Final Exam (Saturday, August 16, 7pm)

The Stanford Honor Code

The standard of academic conduct for Stanford students is as follows:

A. The Honor Code is an undertaking of the students, individually and collectively:

- (1) that they will not give or receive aid in examinations; that they will not give or receive unpermitted aid in class work, in the preparation of reports, or in any other work that is to be used by the instructor as the basis of grading;
- (2) that they will do their share and take an active part in seeing to it that others as well as themselves uphold the spirit and letter of the Honor Code.

B. The faculty on its part manifests its confidence in the honor of its students by refraining from proctoring examinations and from taking unusual and unreasonable precautions to prevent the forms of dishonesty mentioned above. The faculty will also avoid, as far as practicable, academic procedures that create temptations to violate Honor Code.

C. While the faculty alone has the right and obligation to set academic requirements, the students and faculty will work together to establish optimal conditions for honorable academic work.