

Server-side Web Programming Section 01 cs 174

Spring 2023 3 Unit(s) 01/25/2023 to 05/15/2023 Modified 01/25/2023

Contact Information

Instructor:	Robert Nicholson
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Office Hours:	Friday 2:00-4:00 pm or by appointment (via Zoom)
Class Days/Time	Tuesday / Thursday 12:00-1:15 pm

Course Description and Requisites

Development and deployment of multi-tier web-based applications. Introduction to HTML, XML, enterprise design patterns, web services and database access.

Prerequisite: CS 46B (with a grade of "C-" or better); Computer Science, Applied and Computational Math, or Software Engineering Majors only.

Letter Graded

Program Information

Diversity Statement - At SJSU, it is important to create a safe learning environment where we can explore, learn, and grow together. We strive to build a diverse, equitable, inclusive culture that values, encourages, and supports students from all backgrounds and experiences.

Course Goals

Learn to develop, test and deploy server-based web applications using a range of architectures, tools, and frameworks.

Course Learning Outcomes (CLOs)

CLO 1: Understand the architecture, components, and protocols of the World Wide Web (WWW). [PLO 1]

CLO 2: Develop and deploy server-based web applications using common architectures and frameworks. [PLO 1]

CLO 3: Apply techniques to make web applications reliable, secure, fast, accessible, and search-engine friendly. [PLO 1]

Course Materials

There is no text required for this course.

Course Requirements and Assignments

Students will work on small individual assignments to develop basic skills.

Students will then work in teams to build a significant web application of their choice.

Exams

The exams will test understanding (not memorization) of the material taught during the semester and now well each of you participated in your team assignments and project. Instant messaging, e-mails, texting, tweeting, file sharing, or any other forms of communication with anyone else during the exams will be strictly forbidden.

There can be no make-up quizzes and midterm examination unless there is a documented medical emergency. Make-up final examinations are available only under conditions dictated by University regulations.

✓ Grading Information

Individual total scores will be computed with these weights:

25%	Individual Assignments**
45%	Team Project*
15%	Midterm exam**
15%	Final exam**
	* <i>team scores</i> ** <i>individual scores</i>

Each assignment and exam will be scored (given points) but not assigned a letter grade. The average score of each assignment and exam will be available in Canvas after it has been graded.

Course grades will be based on a curve. The median total score will earn a B-. Approximately one third of the class will earn higher grades, and another one third will earn lower grades.

University Policies

Per [University Policy S16-9 \(http://www.sjsu.edu/senate/docs/S16-9.pdf\)](http://www.sjsu.edu/senate/docs/S16-9.pdf), relevant university policy concerning all courses, such as student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g. learning assistance, counseling, and other resources) are listed on [Syllabus Information web page \(https://www.sjsu.edu/curriculum/courses/syllabus-info.php\)](https://www.sjsu.edu/curriculum/courses/syllabus-info.php). Make sure to visit this page to review and be aware of these university policies and resources.

Course Schedule

1	1/26/23	Intro - Web architecture and protocols
2	1/31/23	html and css; responsive design
3	2/2/23	html and css; responsive design
4	2/7/23	php
5	2/9/23	php
6	2/14/23	Forms: get and post
7	2/16/23	Back-end databases
8	2/21/23	JavaScript
9	2/23/23	JavaScript; validation; DOM
10	2/28/23	AJAX; JQuery

11	3/2/23	Angular et al
12	3/7/23	Web services; traditional & restful
13	3/9/23	html canvases
14	3/14/23	CSS & Javascript animation
15	3/16/23	Architecture: Model / View / Controller
16	3/21/23	MIDTERM
17	3/23/23	Frameworks
18	4/4/23	WordPress
19	4/6/23	Public APIs and resources
20	4/11/23	Search Engine Optimization
21	4/13/23	Tools: Google Analytics; Search Console; Web Speed
22	4/18/23	Performance Optimization
23	4/20/23	Internationalization
24	4/25/23	Security
25	4/27/23	Standards: files, accessibility, legal
26	5/2/23	Usability and Testing
27	5/4/23	Review and prep for final
28	5/9/23	Project Presentations
29	5/11/23	Project Presentations
30	5/18/23	FINAL