

CSE 264 – Web Systems Programming

Prof. Dominic DiFranzo

Instructor's Contact Information:

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Office Hours:

Tue/Thur/Friday 12:35-1:00

Online Only

(<https://lehigh.zoom.us/j/94163353678?pwd=RFM3RFFwa1dDSEJMMMDZEZXXZ4aXRlZz09>)

Recitations (Live Coding Sessions):

Wed 10-11am (on Twitch)

(<https://www.twitch.tv/difrad>)

Course Information:

CSE 264

Spring, 2021

Mon/Wed 12:10-1:25

(Live lectures on Zoom, will also be recorded)

Zoom link:

<https://lehigh.zoom.us/j/94163353678?pwd=RFM3RFFwa1dDSEJMMMDZEZXXZ4aXRlZz09>

Course Description

Practical experience in designing and implementing modern Web applications. Concepts, tools, and techniques, including: HTTP, HTML, CSS, DOM, JavaScript, Ajax, graphic design principles, responsive design, Node.js, and MongoDB. Not available to students who have credit for IE 275. Prerequisite: CSE 017

Course Learning Objectives

By the end of this course, students will be able to

- Understand the basics of the technology that enables the World Wide Web
- Develop an understanding of the Javascript language in both client and server side environments
- Be able to build complex web applications through the use of HTML, CSS, Javascript and AJAX
- Understand basic security design for web applications
- Build web applications that work on both desktop and mobile devices

Prerequisites

CSE 17

Required Texts

None for this course. We will use a number of online guides and tutorials. Our main reference will be the Mozilla Developer Documentation (<https://developer.mozilla.org/en-US/docs/Web>). Other guides and tutorials will be listed in the course site.

Course Material

Programming Assignments, Slides, Class Announcements and all course material will be posted on CourseSite. (<http://coursesite.lehigh.edu>)

Tentative Topics Covered (not necessarily in the order below)

- History of the Web
- Web Architecture /HTTP/URIs
- REST
- Javascript
 - History and Language Features
 - Objects
 - Functions
 - Asych (Callbacks, Promises, Await)
- Node.js
 - Javascript on the Server Side
 - Server Static Content
 - Express.js
- MongoDB Backend
- HTML
- CSS
- Responsive Web Design
- Document Object Mode
- AJAX /jQuery
- Sessions and Authentication
- Web Security

Attendance, Participation

Live lectures will take place as originally scheduled on Zoom. You are encouraged to attend if you can. **But there is no requirement to do so**, as all lectures and material will be posted on

Course Site. This is to help students that are not in the EST timezone. If using Zoom, please be sure your mic is muted. You can unmute anytime to ask a question, or use the chat functionality as well. **You don't need to have your camera on during live Zoom lectures.**

I will also hold recitations sessions as live coding sessions on Wed 10-11am EST. Again, feel free to attend these if you can, they will also be recorded and posted on Course Site.

We will also be using Piazza for class discussion and Questions/Answers. Please sign up using this link: <https://piazza.com/lehigh/spring2021/cse264>

Please note: Lehigh will be signing a contract for Piazza. **Please ignore the donation requests!!**

Lehigh LTS has told me that they are finalizing a contract with Piazza. Please ignore the donation requests that Piazza is posting.

Piazza is NOT a charity and NOT a nonprofit. It is a for-profit startup whose business model is to sell information about students who opt-in to the Piazza Careers service. They have found that their business model is not working and so are aiming to get universities to license Piazza. In the meantime, they tried going to an ad-based approach that met with significant complaint, a variety of subscription models, and a donation-request model (presuming one might think it was a nonprofit even though it is not).

I have received word from Lehigh's CTO recently that Lehigh plans to purchase a Piazza license. While that is not in place as I write this, we've decided to go ahead and start classes on Piazza and anticipate a smooth (likely invisible) transition to the licensed model when the agreement is in place.

Quizzes

You will be given quizzes throughout the semester which will all be take-home. You will have 48 hours to finish and turn in your quiz. Quizzes will be open notes, open book, open internet. You can not consult or work with other students on the quizzes. The lowest graded quiz will be dropped.

Programming Assignments

There will be a number of programming assignments throughout the semester. Each programming assignment will have information on how to turn it in (usually in the form of a private GitHub repo) along with the date it is due. You are allowed to submit assignments late as long as you do not use more than 5 late days over all assignments over the entire semester. A weekend will count as one day.

Grading Components

Final 10%

Quizzes (lowest dropped) 35%

Final Project 15%

Programming Assn. (lowest dropped) 40%

Encountering Problems

- If you are having problems, please talk to me ASAP; **do not wait till the end of the semester.**
- I can be flexible regarding deadlines under exceptional circumstances.
- If you are experiencing undue personal or academic stress at any time during the semester or need to talk with someone about a personal problem or situation, I encourage you to seek support as soon as possible. I am available to talk with you about stresses related to your work in my class and help you find the resources you need.

Grading Scale

94-100	= A
90-93	= A-
87-89	= B+
84-86	= B
80-83	= B-
77-79	= C+
74-76	= C
70-73	= C-
67-69	= D+
64-66	= D
60-63	= D-
<60	= F

Statement on Academic Integrity

Student Senate Statement on Academic Integrity

We, the Lehigh University Student Senate, as the standing representative body of all undergraduates, reaffirm the duty and obligation of students to meet and uphold the highest

principles and values of personal, moral and ethical conduct. As partners in our educational community, both students and faculty share the responsibility for promoting and helping to ensure an environment of academic integrity. As such, each student is expected to complete all academic course work in accordance to the standards set forth by the faculty and in compliance with the University's Code of Conduct.

The work you do in this course must be your own. This means that you must be aware when you are building on someone else's ideas—including the ideas of your classmates, your professor, and the authors you read—and explicitly acknowledge when you are doing so. Feel free to build on, react to, criticize, and analyze the ideas of others but, when you do, make it known whose ideas you are working with. If you ever have questions about drawing the line between others' work and your own, ask me and I will give you clear guidance or you may visit Lehigh Library's 'Proper Use of Information' page at <http://libraryguides.lehigh.edu/plagiarism>

Here is the way these standards will be applied in this class:

You may discuss programming assignments with other members of the class, but please note that

THE FOLLOWING ARE STRICTLY PROHIBITED:

- Showing your code to another member of the class or leaving your code in a location where it can easily be accessed by someone else
- Reading another student's code whether or not they have given you permission

Violations of any of these rules will be referred to the discipline committee.

Accommodations for Students with Disabilities

Lehigh University is committed to maintaining an equitable and inclusive community and welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact Disability Support Services (DSS), provide documentation, and participate in an interactive review process. If the documentation supports a request for reasonable accommodations, DSS will provide students with a Letter of Accommodations. Students who are approved for accommodations at Lehigh should share this letter and discuss their accommodations and learning needs with instructors as early in the semester as possible. For more information or to request services, please contact Disability Support Services in person in Williams Hall, Suite 301, via phone at 610-758-4152, via email at indss@lehigh.edu, or online at <https://studentaffairs.lehigh.edu/disabilities>.

The Principles of Our Equitable Community

Lehigh University endorses The Principles of Our Equitable Community [http://www.lehigh.edu/~inprv/initiatives/PrinciplesEquity_Sheet_v2_032212.pdf]. We expect each member of this class to acknowledge and practice these Principles. Respect for each other and for differing viewpoints is a vital component of the learning environment inside and outside the classroom.

Lehigh University Policy on Harassment and Non-Discrimination

Lehigh University upholds The Principles of Our Equitable Community and is committed to providing an educational, working, co-curricular, social, and living environment for all students, staff, faculty, trustees, contract workers, and visitors that is free from harassment and discrimination on the basis of age, color, disability, gender identity or expression, genetic information, marital or familial status, national or ethnic origin, race, religion, sex, sexual orientation, or veteran status. Such harassment or discrimination is unacceptable behavior and will not be tolerated. The University strongly encourages (and, depending upon the circumstances, may require) students, faculty, staff or visitors who experience or witness harassment or discrimination, or have information about harassment or discrimination in University programs or activities, to immediately report such conduct.

If you have questions about Lehigh's Policy on Harassment and Non-Discrimination or need to report harassment or discrimination, contact the Equal Opportunity Compliance Coordinator (Alumni Memorial Building / 610.758.3535 / eocc@lehigh.edu)