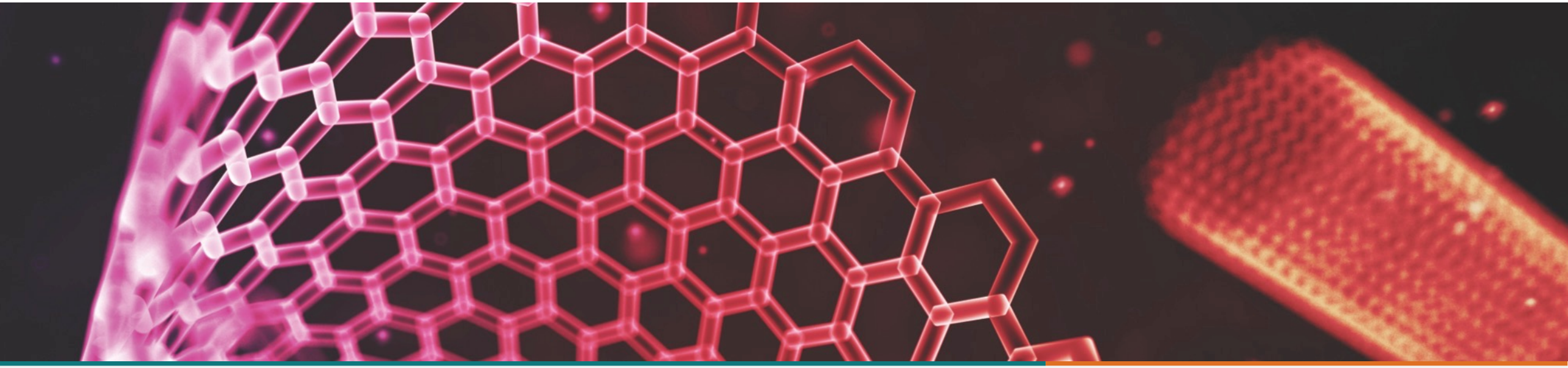
STEVENS
INSTITUTE of TECHNOLOGY
Schaefer School of Engineering & Science

CS 554 – Web Programming II
Course Introduction and Policies



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About Me

Education:

- Associate in Applied Science in Computer Programming and Systems from LaGuardia Community College.
- Bachelor of Business Administration w/ concentration in Computer Information Systems (minor in Psychology) from Baruch College.
- Master of Science in Computer Science from Stevens Institute of Technology.

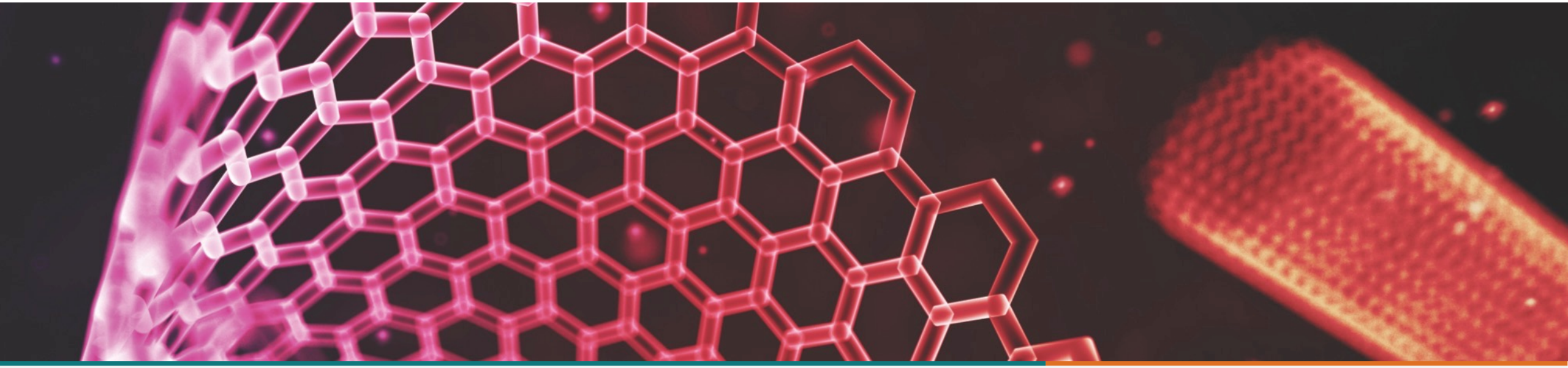
Professional:

- Professional programmer since 1998 (worked at various companies throughout the years, from small/mid-sized startups to large law firms and corporations).
- Current CTO of Startup and an Adjunct Professor here at Stevens.

Teaching:

- 2017-2018: Started as a TA in CS 546, CS 223, and CS 810.
- 2017-2018: Stevens Pre-College Program. Taught Intro to Computer Science and was a TA for the Cybersecurity program.
- Fall 2018-Present: Became an Adjunct Professor at Stevens teaching CS 546, CS 554 and more recently, CS 146.

Course Logistics and Policies



Who This Course Is For

- CS 546 is a prerequisite to this course
- Must be proficient in ALL 546 material
- If you have not taken 546, you are still responsible for being proficient in ALL 546 material.
- I will NOT go over 546 material with a 554 student.

Course Communication - Slack

- We will be using Slack for most communication in the course. You will find an invitation link in the course modules on canvas.
- Every student should be in the slack workspace in the #cs-554 channel for course related questions. #general is used for general chat related to CS, #random is for any off-topic chat. **Do not ask any course related questions in any other channel other than #cs-554**
- Please do not direct message TA's or myself unless invited to, keep all communication in the chat channel.
- Even if you do not chat much in the channel, it is advised that you read the channel frequently for clarifications on assignments that other students may have asked.

Course Codebase

The lecture code as well as all lecture slides for the course can be found on GitHub:

- https://github.com/stevens-cs546-cs554/CS-554

Grade Breakdown

Labs: 40%

- Labs will be weighted evenly.

Exercises/Quizzes: 10%

- Most weeks we will have an extra exercise or quiz.

Final Project Implementation Plan: 5%

- Students will be form groups to create a web application, and and create an implementation plan detailing all the technology they will be using to create the application. Each group will meeting with the professor to discuss their plan.

Final Presentation: 5%

- You will give a technical presentation showcasing all aspects of the product and technological decisions.

Final Project Code: 40%

For the final project, students will create a web application with multiple backend and frontend components working together.

Final Project Code Grade Breakdown

The 40% will be split. 20% of the grade is for the project as a whole and the other 20% is for a group member’s individual contribution to the project. You MUST all use GitHub so individual contributions can be measured.

Late Assignments

You will have ample time to complete each assignment, so lateness will be harshly penalized:

- **Late labs will receive a 15-point penalty PER DAY. A lab is considered late 5 minutes after the due date/time (You have a 5-minute grace period).**
- **For final project components, the penalty is 25-points per day and a final project component is considered late 5 minutes after the due date/time (You have a 5-minute grace period).**

There are NO exceptions to these policies unless a verifiable doctor's note is provided, or you are officially excused from the office of Graduate Affairs.

Plagiarism and Cheating

- **I have a ZERO tolerance policy when it comes to sharing code with each other and cheating. Anyone caught cheating will receive an automatic 0 and be reported to the college.**
- Moss is run against every student's lab submissions to detect plagiarism in code and it is VERY VERY good at what it does.
- Moss is not only run against all current student submissions but also against ALL student submissions from previous semesters.
- If Moss detects a 40% or higher code similarity between your work and another student's or previous student's, you will receive an automatic 0 for that lab the first time you are caught. If you are caught a 2nd time, you will get a negative grade for that lab of -10%, if you get caught cheating a third time, you will receive an F in the course.
- You CANNOT use any code from a previous student found online on GitHub, any other online code repository etc..

Again, ZERO TOLERANCE.

What Will We Be Covering in This Course?

In this course, we will be taking our knowledge of basic website development and applying those principals to more complex web applications with modern technology.

1. You will be learning advanced CSS techniques
2. You will be subject to more detailed security issues
3. You will learn to split up backend and frontend components through the use of JavaScript frameworks
4. You will learn to use modern technology and multiple processes to achieve very fast web applications.

How We Will Cover This Material

This course is more researched based than 546.

Throughout the semester, we will be learning about different technologies with assignments focused on each week's content. We will cover many topics and go over an introduction to them and see how to use them. It is up to you as to which technologies you find interesting and wish to dive deeper into.

What Will We Do in This Course?

In this course, you will:

- Complete many assignments that will assess your understanding of the topics covered in class. These will be programming assignments.
- As a group, you will come up with an idea for a full web application to use as your final project and pick the technologies you are going to use for it.
- Create an implementation plan and discuss it with the professor.
- Give a technical presentation demonstrating your project result.
- Submit your final project code.

What Are the Labs Like?

- There will be assignments generally every week or every other week, designed to make you practice the material that we have been discussing in class. The assignments are a little more complex, that is why you are given more time to complete them. We will not have a lab for EVERY topic in the course. You will have exercises/quizzes on topics we do not have labs for.
- Each assignment will give you a good foundation for the technologies and techniques you will use for the final project.
- Assignments are incremental: You will be carrying techniques from earlier assignments into later assignments.

What Is the Final Project Like?

For your final project, you will create a complex web application that fulfills all of the following:

- Uses a frontend framework to create a single page application
- Has a responsive design so that the same view works across all sizes of devices
- Runs multiple processes through use of a worker and a web server.
- Uses at least two technologies not covered in the course and integrate it into your technology stack.
- Can defend against more complex security attacks
- Uses a NoSQL database
- Make front-end http requests to a server
- Performs DOM Manipulation and event handling through jQuery or other frameworks

Teaching Assistants

- Each TA will hold a 2-hour office hours every week via Zoom to answer your questions and they will also be in the Slack channel to answer any of your questions
- They will be making their introductions and posting their office hours soon.
- I am very protective over my TA's therefore rudeness, pushiness, hostility etc. will not be tolerated.
- The TA's have no authorization to change your lab grades without discussing it with me first. They also do not set the number of points you get deducted for an issue.
- If you have a question, please reach out to the TA's first, if they are unable to address your issue then reach out to me.

Readings

- In lieu of a textbook, assignments will require you to research the topics in order to complete them. I will point you to resources for each assignment.
- Most weeks, I will provide recommended readings and other resources regarding the content that will be covered.
- It is **highly beneficial** to read those readings before class as a form of preparation.
- For many labs and parts of your final project, you will be expected to read some form of documentation in order to learn how to use a particular technology or package.

Questions?