

Course & Section Code: **WEB422** 

Course Name: **Web Programming for Apps and Services** 

Course Start & End Dates: 

**Q&A / Virtual Office Hour: On-Demand** 

Razi Iqbal razi.iqbal@senecacollege.ca Instructor Name & Email:

Enter Welcome Message here.

### Mode of Delivery: Online Virtual Classroom

This course is offered as a virtual classroom, providing students an opportunity to attend a weekly online class with a scheduled date and time. The course will include a combination of synchronous, real-time activities led and recorded by the instructor, complemented with **asynchronous** activities.

- Students are expected to attend and participate in each scheduled **synchronous** session for this course at the time specified.
- **Asynchronous** activities (e.g., assignments) can be completed anytime up to the specified due date.

### **Course Outline (Full course outline available here)**

Course Learning Outcomes (CLOs): Upon successful completion of this subject the student will be able to:

Students learn to design and create web applications and services that can be deployed at scale. The JavaScript language is used, with widely-used and powerful tools and frameworks. The major topic themes of this course include a study of the patterns for app and service development, using frameworks that enable rich and functional browser apps, working with robust and scalable data storage platforms, and deployment methodologies.

Method of

Various assignments and tests:

**Evaluation:** Test1 (10%)

Assignment 1 (10%) Assignment 2 (15%) Assignment 3 (15%) Midterm (20%) Final Exam (30%)

Prescribed Text(s):

None. We will rely on high-quality and authoritative resources on the web.

Optional Reference Material(s): None. We will rely on high-quality and authoritative resources on the web.

Please visit the **Seneca College bookstore** for more details.

# Weekly Schedule (Subject to Change)

Week & Date	Synchronous Class Time and Platform	Synchronous Topics and Activities	Asynchronous Activities, Readings and Deadlines	Related Course Learning Outcomes (CLOs)
1 Click or tap here to enter text.	13/09/2023	<ul> <li>Welcome to WEB422</li> <li>Front and backend concepts</li> <li>Dev environment setup</li> <li>Re-introduction to back-end web services and testing</li> </ul>	Click or tap here to enter text.	Front and backend concepts
2 Click or tap here to enter text.	20/09/2023	<ul> <li>Bootstrap, jQuery and others</li> <li>Short jQuery with Bootstrap Review</li> <li>Helpful utility functions with Lodash &amp; Rendering Data</li> <li>Handling Date / Time information using Moment</li> </ul>	Click or tap here to enter text.	General JS Libs and Accelerators
3 Click or tap here to enter text.	27/09/2023	<ul> <li>Introduction to Component-based architecture using React</li> <li>Introduction to React</li> <li>Getting started by running the default App</li> <li>Introduction to React Component</li> </ul>	Click or tap here to enter text.	React Web Development
4 Click or tap here to enter text.	04/10/2023	<ul> <li>Continue React Development</li> <li>Handling Events and Rendering Data</li> <li>Introduction to Routing</li> <li>Creating a UI with 3rd party Components</li> </ul>	Assignment 1 (10%)	React Web Development
5 Click or tap here to enter text.	11/10/2023	<ul> <li>React Forms &amp; Deployment</li> <li>Processing forms in React</li> <li>Serving a React App</li> </ul>		React Web Development

Week & Date	Synchronous Class Time and Platform	Synchronous Topics and Activities	Asynchronous Activities, Readings and Deadlines	Related Course Learning Outcomes (CLOs)
6	18/10/2023	Test 1	Test 1 (10%)	
7 Click or tap here to enter text.	25/10/2023	<ul> <li>Introduction to Angular</li> <li>Getting started by running the default App</li> <li>Introduction to Angular Components and Templates</li> </ul>	Click or tap here to enter text.	Angular Web Development
8 Click or tap here to enter text.	01/11/2023	<ul> <li>Additional Bindings, Directives, Events &amp; Routing:</li> <li>Attribute, Class, Style Bindings &amp; Directives</li> <li>Emitting Events</li> <li>Introduction to Routing</li> </ul>	Assignment 2 (15%)	Angular Web Development
9	08/11/2023	Midterm	Midterm (20%)	
10 Click or tap here to enter text.	15/11/2023	<ul> <li>Introduction to Services, HttpClient &amp; More Routing Options</li> <li>Angular Services Introduction</li> <li>Working with a Web API in Angular</li> </ul>	Click or tap here to enter text.	Angular Web Development
11 Click or tap here to enter text.	22/11/2023	<ul> <li>Introduction to Working with Forms in Angular</li> <li>Element "State" &amp; Validation</li> </ul>	Assignment 3 (15%)	Angular Web Development
12 Click or tap here to	29/11/2023	Introduction to Angular Deployment & Testing	Click or tap here to enter text.	Angular Web Development

Week & Date	Synchronous Class Time and Platform	Synchronous Topics and Activities	Asynchronous Activities, Readings and Deadlines	Related Course Learning Outcomes (CLOs)
enter text.		<ul> <li>Introduction to Building / Deploying an Angular app using Node.js</li> <li>A brief introduction to the Angular testing landscape</li> </ul>		
13 Click or tap here to enter text.	06/12/2023	<ul> <li>Introduction to Securing a Web API with JWT</li> <li>Review User Account Management / Security (MongoDB or Redis / bcrypt)</li> <li>Securing routes in an existing API using Passport.js / Passport-jwt</li> <li>Updating an Angular app to use JWT (Route Guards / Http Interceptors)</li> </ul>	Click or tap here to enter text.	Web APIs
14 Click or tap here to enter text.	12/12/2023	Final Exam Assessment	Final Exam (30%)	Click or tap here to enter text.

## **Learning Strategies for Success**

Class Preparation: Always come prepared to learn, by completing your weekly readings prior to each class, participating in

online discussions, attending all classes and submitting any assigned work on time. Your instructor will create and post all content relating to course delivery and assessment (such as lecture notes and recordings, assignments and rubrics/evaluation schemes, reading materials, etc.) in advance of the

scheduled synchronous activity, to provide students with adequate time to prepare.

Attendance: It is important that students attend all classes and/or review class recordings for increased

understanding and best course outcomes. As courtesy/consideration for others, plan to arrive on time

as late arrivals are disruptive to the class, even in a virtual learning environment.

**Blackboard Access:** It is important for students to regularly check their course Blackboard site for recaps or highlights of

past lectures, general weekly announcements about any changes and/or reminders of scheduled events upcoming in the course, and notifications regarding the availability of marks and feedback on

graded assessments (Grade Centre).

**Email:** Students should regularly check their "@myseneca.ca" student email for communications on course-

and college-related matters. To learn how to set up and check your student email, visit the ITS website.

Assignments: All assignments must be submitted by the due date stated by the instructor and in the manner directed

by the instructor (e.g. on a separate Word document through Blackboard).

Late assignments will be penalized as per instructor's guidelines.

In extenuating circumstances, students must notify the instructor in advance of the deadline for possible extensions. Valid reasons include medical emergencies, family illness or family death. Please note that valid documentation (such as an original doctor's note) may be required. Make-up

opportunities may be arranged and communicated by the instructor.

#### **Academic Support:**

A variety of free academic support services are available to all Seneca students. For more information, please visit the Learning Centres.

We are committed to supporting our students. Please go through this <a href="10-minute module">10-minute module</a> to assess your readiness for online learning and access the following link for more information: <a href="Learning Online at Seneca">Learning Online at Seneca</a>

#### **Additional Resources:**

Services for Students

The Learning Portal

Academics and Student Services Policies

# Student Accommodations:

All requests for academic accommodations will be handled by the Counseling and Accessibility Services office, which will electronically provide the academic accommodation plan to the appropriate instructor and/or designate of the Program Area. Faculty will arrange testing accommodations for eligible students. For more information or to request academic accommodations, please visit Counselling and Accessibility Services.

# Recording Lectures and Educational Activities:

To support access to course content, lectures may be recorded and the links to the lectures posted on Blackboard. These resources are intended to be used as a student study aid and are not a substitute for participation (exception may include remote students residing in another time zone). Video recordings will primarily capture the instructor and onscreen content. Students will not be visible on video recordings unless their webcam is enabled. Voices will be captured as audio recording along with questions posted in the chat tool. Students may speak with their instructor to determine alternative means of participating if they are concerned about their voice or text being recorded.

All recordings must adhere to the Recording Lectures and Educational Activities Policy.

#### **Academic Integrity:**

Seneca upholds a learning community that values academic integrity, honesty, fairness, trust, respect, responsibility and courage. These values enhance Seneca's commitment to deliver high-quality education and teaching excellence, while supporting a positive learning environment. Ensure that you are aware of Seneca's <u>Academic Integrity Policy</u>. Review section 2 of the policy for details regarding approaches to supporting integrity. Section 2.3 and Appendix B of the policy describe various sanctions that can be applied, if there is suspected academic misconduct. Please be reminded that plagiarism is a form of cheating and there are serious penalties for cheating.

By registering in this course, you are agreeing to the following declaration:

"I affirm that I will not give or receive any unauthorized help on assessments and that all work provided will be my own. I agree to abide by Seneca's Academic Integrity Policy, and I understand that any violation of academic integrity will be subject to the penalty outlined in the policy."

Approved by,	
Sheri Ladoucier	, Academic Program Manage