Course Addendum

Semester**:**   Subject Code: **WEB322**   Section**:**
Subject Title: **Web Programming Tools and Frameworks**
Professor:
E-mail: Ext**.**
Office Hours**:**

Created by:
Approved by:

Kathy Dumanski, Chair, School of Software Design and Data Science

Please read this addendum to the general course outline carefully. It is your guide to the course requirements and activities.

Please refer to the course outline for learning outcomes, course description and text and materials.

Please also visit sdds.senecacollege.ca for key information on courses, graduation requirements, transfer credit, and more from the School of Software Design and Data Science.

Assessment Summary

- 6 Assignments - 50% ([A1] = 5%, [A2-A6] = 9%/ea)

- 6 Tests - 50% (10%/ea) – **Note: Lowest test mark is dropped**

Course Policies

To obtain a credit in this subject, a student must:

- Achieve an average of 50% or better for all assignments

- Achieve an average of 50% or better for all tests

- Achieve a weighted average of 50% or better on the overall course

Academic Policies:

TENTATIVE WEEKLY SCHEDULE (Topics reflected on course website)

Week	Topic or Skill	Reading	Assessment	Weight
Week 1	• Development Environment / Technology / Tools • Web Servers & HTTP Request / Response Paradigm • HTTP Protocol Overview	Course Introduction	**Assignment 1 Released**	**5%**
Week 2	• What is Node.js / Why use it? • Modules explained • NPM – Node Package Manager • Package.json Explained • Building a simple web server using Node.js with Express.js	Node.js Introduction	**Assignment 2 Released**	**9%**

Week 3	• Object Oriented JavaScript Review: • Advanced JavaScript / ES6 Features:	JavaScript Concept Review	**Test 1 (Weeks 1 & 2)**	**10%**
Week 4	• What is Express.js? • Configuration & Settings • Routing • Middleware • Error Handling • Chrome Dev tools – Network tab, Response data	Express.js Introduction	**Assignment 3 Released**	**9%**
Week 5	• HTML Forms Review • Processing Forms in Express.js	Processing forms with Express.js	**Test 2 (Weeks 3 & 4)**	**10%**
Week 6	• Template Engines in Express.js • Handlebars.js	Template Engines – Handlebars.js	**Assignment 4 Released**	**9%**
Week 7	• Setting up a "Postgres" Database • Downloading the "sequelize" & "pg" modules • Object-Relational Mapping Explained & Requesting Data • Returning & Formatting data using Handlebars.js	Relational Database	**Test 3 (Weeks 5 & 6)**	**10%**
STUDY WEEK				

Week 8	• What is a NoSQL Database? Advances / Disadvantages • Configuring a NoSQL Database (MongoDB) • Downloading / installing MongoDB Driver (module) for Node • Queries • MongoDB Atlas • Mongoose.js • Schema, indexes	MongoDB	**Assignment 5 Released**	**9%**
Week 9	• Review: What is AJAX? Why do we need it? • Requesting data (JSON) on the Client Side using JavaScript • Processing AJAX Requests on the server and returning data • RESTful API Introduction	AJAX Review / Practical AJAX Programming	**Test 4 (Weeks 7 & 8)**	**10%**
Week 10	• Cookies • Sessions • Authorization vs. Authentication	Managing State Information	**Assignment 6 Released**	**9%**
Week 11	• jQuery Introduction • Introduction to the Bootstrap UI Framework	Introduction to jQuery & Bootstrap Frameworks	**Test 5 (Weeks 9 & 10)**	**10%**
Week 12	• HTTPS • Letsencypt.org, free https certificates forever • Password Encryption, bcrypt.js	Security Considerations		

Week 13	(Course Review)		Test 6 (Weeks 11 & 12)	10%

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