Course Outline Summer 2017

WMDD 4935 Server-Side Scripting

Credits: 1.5

Tuesday 09:30-12:20 B014 & Thursday 11:30-14:20 B018
Course Format: Lecture 1.0 h + Seminar 0.0 h + Lab. 2.0 h

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Office Hours: Tuesday 13:00-14:00

Course Description:
Introduction to a server-side scripting languages (e.g., JavaScript(using Node)) and framework (e.g., hapijs) for implementing dynamic websites. Includes: working with form data and data validation; integration with backend databases.

Registration in this course is restricted to students admitted to the Post-Degree Diploma in Web and Mobile App Design and Development.

Prerequisite(s): A minimum "C" grade in WMDD 4835, 4840, and 4920. WMDD 4920 may be taken concurrently.

Learning Outcome:
Upon successful completion of this course, students will be able to:
- write and deploy scripts
- create server-side apps that respond to http requests and connect to a database
- plan and code a simple api
- implement frameworks and other modules into a project

Textbook and Course Materials:
No textbook is required however there will be several required readings throughout the class as well as recommendations for supplementary readings and other study materials.

Assessments and Weighting:
Quizzes: 15%
Project 1: 10%
Project 2: 10%
Project 3: 10%
Project 4: 15%
Labs and Class Participation: 15%
Final Exam 25%

Course Breakdown

This breakdown of the course is subject to change throughout the term, I will try to provide adequate advanced notice of any significant changes.

Week 01:
Introductions, go over syllabus, talk about course content, required software and accounts.

Week 02:
Intro to NodeJS, module patterns, fs(file system) module
Lab exercises introduced

Week 03:
Events, Streams and Buffers

Week 04:
Quiz 1
Setting up a new project(NPM, Package.JSON…)
Intro to HTTP and the http module in node

Week 05:
HTTP routes,
Content-Type
simple API example
Assignment 01 fs module simple static site generator

Week 06:
Introduction to MongoDB
Using MongoDB with Atlas
CRUD
Assignment 02 intro to MongoDB

Week 07:
Planning an API
API design

Week 08:
Quiz 2
Intro to hapi
configuration over code
Routes and handlers

Week 09:
hapi and mongodb
Separate configuration from code dotenv module, process.env
hapi CRUD
Assignment 03 API planning

Week 10:
hapi plugins vision and inert
Static pages, template engines
Forms
Assignment 04 book lending API

Week 11:
More hapi plugins
Validation with joi
Authentication

Week 12:
Quiz 3
Deploying with now
Notes on transitioning from development to production

Week 13:
Exam review
Labs Due

Grading:

A+ 95-100	B+ 80-84	C+ 65-69	D 50-54
A 90-94	B 75-79	C 60-64	F 0-49
A- 85-89	B- 70-74	C- 55-59	

See the college calendar for additional information about grades.

Late Assignments:
In order to complete this course successfully, you must observe all applicable program policies. A late assignment will have 10% deducted from its mark for the first day (24 hour period) it is late. This increases to 20% for each of the second and third days. After the fourth day, the mark will be recorded as zero. Weekends count as one day. In other words, one day late is -10%, two days late is -30%, three days late is -50%. If you can not submit an assignment on the due date, it is up to the student to contact one of the instructors to hand it in personally or to have another instructor sign and date it (for physical material). Attendance:
Attendance will be taken at the start of each class. If you will be missing a class, it is YOUR responsibility to contact the instructor and make arrangements to obtain any missed material or assignments. It may be challenging to catch up on missed material due to the speed and volume of material being presented.
Due Dates:
See accompanying Course Outline and check supplied notes. Detailed requirements for each assignment will be provided when they are assigned.
Digital Files:
You are required to keep a copy of all files that are submitted as part of the assignments in this class until you receive your final grade. It is your responsibility to maintain backups of your files.
Cheating and Plagiarism:
Studying and examining similar projects to the one you are implementing is encouraged however what you submit should be solely your own work. Failure to do so may result in disqualifying your project and in turn failure in the course.
Transfer Credit: For information, visit bctransferguide.ca
College Policies:
E1003 – Student Code of Conduct
F1004 – Code of Academic Conduct
E2008 – Academic Standing - Academic Probation and Suspension
E2006 – Appeal of Final Grade
F1002 – Concerns About Instruction
E2011 – Withdrawal from Courses