Boston University
Metropolitan College
MET CS602: Server Side Web Development

BU MET 50

Overview

The Server-Side Web Development course concentrates primarily on building web applications using NodeJS, PHP, MongoDB, MySQL and ES6/ES7 Features.

Instructor, Contact Email and Office Hours:

Instructor
> Andrew Sheehan

E-mail
> asheehan@bu.edu

Office hours
> Usually after class, unless prior arrangments are made.

Official BU Calendar
> http://www.bu.edu/reg/calendars/

BU Blackboard: MET CS602 relies on the BU LMS system, learn.bu.edu. You need to have an account to have access to our course with all its material. Please attempt to login as soon as you can and verify that your account works.

Topic Coverage

1. *PHP*
2. *NodeJS*
3. *MongoDB*
4. *MySQL*
5. *ES6/ES7 features*

Course Books

- **REQUIRED** Murach's PHP and MySQL, 3rd Edition **ISBN-13:** 978-1943872381
- **REQUIRED** Web Development with Node and Express: Leveraging the JavaScript Stack Ethan Brown **ISBN-13:** 978-1491988640

Course Policies

- Homework will not be accepted after the due date. We will examine the solutions on the day it is due; thus, you cannot hand it in late.
- I do not take attendance; but I do get to know my students. If you never/rarely show for class, I will know.
- If you do not participate in class or if you copy/paste solutions from the web all the time, you probably will not succeed in the exams, as they are true/false or fill in the blank type questions.

Grading Policies

Homework 15.00%
> Assignments will be given throughout the semester.

Laboratories 10.00%
> Laboratories will be given in almost every class. They are graded.

Comprehensive Midterm Examination 30.00%
> Covers all material up to the date of the midterm.

Term Project 20.00%
> Completion of a project and presenting it at the last meeting day (in-class) of the course.

Comprehensive Final Examination 25.00%
> Covers all material presented in the course.

Academic Honesty

The course is governed by the Boston University Academic Conduct for Metropolitan College. Cheating and plagiarism will not be tolerated in any Metropolitan College course. Cheating will result in no credit for the assignment or examination and may lead to disciplinary actions. You need to be aware of the information contained within this link (not just for my course, but all): www.bu.edu/met/for-students/met-policies-procedures-resources/academic-conduct-code

Course Schedule

EOC "End of Class". *Something is due by the end of class* Most laboratories are due by the end of that week.

Schedule* (Subject to change)

Week	Dates	Topics	Readings	Homework	Term Project Deliverables
Week 1	January 24, 2018	• Getting started with PHP, Node.js and NPM • Programming with Modules • Getting our environments setup and discussing the course.	Brown, Chapter: 1 Murach, Chapters 1, 2		**Discussion on the Term Project.**
Week 2	January 31, 2018	• Fundamentals of NodeJS • Event Driven Programming • Review of JSON • Express - Web Application Framework • Creating Routes	Brown, Chapters: 2,3,4 Express Guide on Routing	Homework #1 Due	**Scope and Requirements: Questions/Answers Session**
Week 3	February 7, 2018	(Continuation of last week's material) • Language Fundamentals of PHP • Control Structures in PHP • PHP Superglobals	Murach. Chapters 1,2,8,9,10 XAMPP		**Milestone 1: Term Project and Concept Proposal Due.**
Week 4	February 14, 2018	• File Processing with NodeJS • String, Dates and Numbers • Using Arrays with PHP	Brown, Chapter 13 Murach. Chapters 1,2,8,9,10 https://www.npmjs.com/package/csv-parser	Homework #2 Due	
Week 5	February 21, 2018	• Intro to Document-oriented Databases with MongoDB • Using Studio 3T and the Mongo Shell • Finding/Querying with MongoDB	Robo 3T https://docs.mongodb.com/getting-started/shell/		
Week 6	February 28, 2018	• Introduction to the Relational Data Model with MySQL • Data Definition and Markup (ANSI SQL) • Using PDO with MySQL	Murach. Chapters 16,17,18	Homework #4 Due	**Milestone 2: Working Prototypes Due**
Week 7	March 7, 2018	**Spring Break**			
Week 8	March 14, 2018	**Review for the Midterm Examination** *Any questions on the material before this class can be reviewed.*			
Week 9	March 21, 2018	**Comprehensive Midterm Exam**			
Week 10	March 28, 2018	• Bootstrap	Unraveling Boostrap 3.3, by Istvan Novak	Homework #4 Due	**Milestone 3: Progress Update Submission**
Week 11	April 4, 2018	• Inheritance, Interfaces and Encapsulation	Murach, Chapter 14		
Week 12	April 11, 2018	• Cookies, Sessions and Authentication	Murach, Chapter 12	Homework #5 Due	
Week 13	April 18, 2018	**No Class: Patriots' Day Holiday (Substitute Monday Schedule of Classes)**			
Week 14	April 25, 2018	• Laravel - A PHP Framework	https://laravel.com/	Homework #4 Due	
Week 15	May 2, 2018	**Term Project Presentations**			
Final Exam Week	May 9, 2018	**Comprehensive Final Examination**			