MET CS602: Syllabus

Overview of CS602: Server-side Web Development

This class focuses on PHP, NodeJS with both MySQL and MongoDB. Students should bring their laptops to every class for the hands-on laboratories.

Instructor

asheehan@bu.edu Office hours are by appointment. Please reserve and time and place with me.

Clasroom Location

"CAS" - College of Arts and Sciences

Room 220, 725 Commonwealth Avenue, Brookline, MA 02446

Required eBooks

- NodeJS Notes For Professionals (Free PDF/online)

  https://medium.com/easyread/e-book-node-js-notes-for-professionals-book-e13db79d7b08
- Murach's PHP and MySQL (3rd Edition)

  by Joel Murach and Ray Harris

  ISBN 978-1-943872-38-1

  https://www.murach.com/shop-books/web-development-books/murach-s-php-and-mysql-3rd-edition-detail
- Practical Node.js - Building Real-World Scalable Web Apps.

  by Azat Mardan

  978-1-4842-3039-8

  https://www.apress.com/us/book/9781484230381

Course Policies

- Homework will not be accepted after its due date.
- If you do not participate in class (or do not show up or come), you probably will not succeed in the exams, as they are challenging.

Grading Policies

- Homework/Laboratories: 25%
- Midterm Examination: 25%
- Term Project: 25%
- Final Examination: 25%

Schedule

Week	Topics	Readings
1	- Introductions and Workstation Setup - Review/Warm-ups: ES6 - Setup/Install Node - NPM (Node Package Manager)	
2	- Global Objects - Modules - The Event Queue - Callbacks and Asynchronous Event Handling	- Mardan: 1 - Free NodeJS PDF: 11, 33
3	- Introduction to Express JS - Session Handling	- Mardan: 2 - Free NodeJS PDF: 29
4	MongoDB	Free NodeJS PDF: 24, 28, 53
5	- Streams, Servers and Sockets - Developing RESTful Web Services	- Mardan: 5 - Free NodeJS PDF: 27, 30, 38, 44, 57
6	Midterm Examination	
7	- PHP Intro (Variables, Expressions and Language Fundamentals) - Control Structures - Superglobals ($_GET, $_POST)	Murach: 1,2 and 12
8	Functions (Declaring, Using and Scope)	- Murach: 7, 10-12 - https://www.php.net/manual/en/book.ds.php

	- Collections (Data Structures: Map, Set and Arrays) - HTML Form Handling (Parsing/Validating Data) - String and Date functions (Creating, Using and Validating)	
9	- Session Persistence: Cookies - State Management with session_start() - Uploading files	- Murach: 12,23 - https://www.sitepoint.com/premium/books/php-mysql-novice-to-ninja-6th-edition/read
10	- Classes - Interfaces - Object-oriented PHP	Murach: 14
11	- Understanding ANSI SQL - Connecting to MySQL from PHP	Murach: 16-19
12	Creating a database-driven website	Murach: 20
13	Holiday (Thanksgiving)	
14	Review & Term Project Presentations	
15	Final Examination	