MET Computer Science Department

CS602: Server-side Web Development

The course is divided into various modules covering in depth the following topics: PHP, MySQL, Object oriented PHP, PHP MVC, Secure Web applications, Node.js and MongoDB. Along with the fundamentals underlying these technologies, several applications will be showcased as case studies. At the end of this course, students would have mastered the web application development on the server-side. Prerequisite: MET CS 601 or with instructor consent.

Instructor

Andrew Sheehan asheehan@bu.edu

Classroom Location

CAS 220 (College of Arts & Sciences, 685–725 Commonwealth Avenue, Boston, MA 02215, Room 220)
Please always check with bu.edu/studentlink for the latest location/changes.

Fall 2021 Covid-19 Policies

For the Fall 2021 semester, Boston University will return to all in-person classes, with the exception of a few graduate-level courses. Please visit Boston University's official website for the latest news: https://www.bu.edu/back2bu/

Required eBooks

- Practical Node.js - Building Real-World Scalable Web Apps. 2nd Edition

  Azat Mardan

  1484230388

  https://amzn.to/2FiFkBA
- PHP & MySQL: Novice to Ninja, 6th Edition.

  Tom Butler and Kevin Yank

  9780994346988

  https://amzn.to/2PUQIpm

Course Policies

- Homework will not be accepted after its due date unless the student has a very good reason that the Professor accepts.
- If you miss a quiz it cannot be rescheduled or made-up. Quizzes are random and must be completed on the day and time it is administered.
- Attendance is part of your grade. I do watch for whom shows up and participates in class. If you never show up in class and I have no record or recollation of talking with you in class or in emails, it will be taken into consideration during final grading.

Grading Policies

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

Official Boston University Calendar System

https://www.bu.edu/reg/calendars/

Schedule

Week (Tuesday's)	Topics	Readings
Sept-7	• Course Information and Introductions • Workstation configuration talks for Mac, Linux and Windows • Review/Warm-ups: ES6 • Setup/Install Node and NPM (before the start of Week #2...) • Agile Development, Version Control Systems (GIT)	Our first class will focus on our goals and objectives for the semester and how plan how we are going to get there. Mardan: 1
Sept-14	• Fundamentals of NodeJS • Introduction to Express • Express Routes	• Mardan: 2
Sept-21	• Persistence: Node with MongoDB with Mongoose • Mongoose/Data Modeling	• Mardan: 5
Sept-28	• File I/O, Streams and Sockets	• Mardan: 1,8,9
Oct-5	• Security and Authentication	• Mardan: 6

Week (Tuesday's)	Topics	Readings
Oct-12	(No Class) Substitute Monday Schedule of Classes	
Oct-19	Midterm Examination	
Oct-26	• PHP Fundamentals	• Butler: Chapter 1,2
Nov-2	• Functions • Data Structures/Arrays • Forms, Superglobals and Built-in Types	• https://www.php.net/manual/en/book.ds.php
Nov-9	• Cookies and PHP Session Management • Uploading Files	• Butler: Chapter 11 • https://www.php.net/manual/en/features.file-upload.post-method.php
Nov-16	• Classes, Interfaces and Object-oriented PHP	• Butler: Chapter 8
Nov-30	• Introduction to MySQL and Relational Databases • MySql with PHP • Using PDO	• Butler: 3, 4, 12, 13 • Butler: Chapter 9: Creating an Extensible Framework
Dec-7	Term Project Presentations	
Dec-14	Comprehensive Final Examination