



MET CS602: Syllabus

Overview of CS602: Server-side Web Development

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

Instructor

Andrew Sheehan asheehan@bu.edu

Classroom Location

This course is being offered as part of the Learn from Anywhere University directive. You can learn outside of the classroom. Anywhere. The course will be use Live Classroom. And, the course will be recorded. You can watch the presentation many times, on your own time.

Please check with bu.edu/studentlink for the latest location.

Fall 2020 Covid-19 Policies

All students returning to campus will be required, through a digital agreement, to commit to a set of [Health Commitments and Expectations](#) including face coverings, symptom attestation, testing, contact tracing, quarantine, and isolation. The agreement makes clear that compliance is a condition of being a member of our on-campus community. You have a critical role to play in minimizing transmission of COVID-19 within the University community, so the University is requiring that you make your own health and safety commitments. Additionally, if you will be attending this class in person, you will be asked to show your [Healthway](#) badge on your mobile device to the instructor in the classroom prior to starting class, and wear your face mask over your mouth and nose at all times. If you do not comply with these rules you will be asked to leave the classroom. If you refuse to leave the class, the instructor will inform the class that they will not proceed with instruction until you leave the room. If you still refuse to leave the room, the instructor will dismiss the class and will contact the academic Dean's office for

follow up. Boston University is committed to offering the best learning environment for you, but to succeed, we need your help. We all must be responsible and respectful. If you do not want to follow these guidelines, you must participate in class remotely, so that you do not put your classmates or others at undue risk. We are counting on all members of our community to be courteous and collegial, whether they are with classmates and colleagues on campus, in the classroom, or engaging with us remotely, as we work together this fall semester.

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.
- If you miss a quiz they cannot be rescheduled.
- Attendance is part of your grade. I do watch for whom shows up and participates in class.

Grading Policies

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

Schedule

| Week (Tuesdays) | Topics | Readings |
|--------------------|--|---|
| Sept-8 | <ul style="list-style-type: none">• Introductions and Workstation configuration• Review/Warm-ups: ES6• Setup/Install Node• NPM (Node Package Manager) | Please have your laptop ready for programming by installing the software (NodeJS and an IDE or text editor) |
| Sept-15 | <ul style="list-style-type: none">• Fundamentals of NodeJS• Introduction to Express JS• Configuring Express Routes | <ul style="list-style-type: none">• Mardan: 2 |
| Sept-22 | <ul style="list-style-type: none">• Persistence: Node with MongoDB• Mongoose/Data Modeling | <ul style="list-style-type: none">• Mardan: 5 |
| Sept-29 | <ul style="list-style-type: none">• Streams, Servers and Sockets• RESTful Web Services | <ul style="list-style-type: none">• Mardan: 8,9 |

| Week (Tuesdays) | Topics | Readings |
|--------------------|---|---|
| Oct-6 | <ul style="list-style-type: none"> • Security and Authentication | <ul style="list-style-type: none"> • Mardan: 6 |
| Oct-13 | (No Class) Substitute Monday Schedule of Classes | |
| Oct-20 | Midterm Examination | |
| Oct-27 | <ul style="list-style-type: none"> • PHP Fundamentals | <ul style="list-style-type: none"> • Butler: Chapter 1: Installation • Bulter: Chapter 2: Introducing PHP |
| Nov-3 | <ul style="list-style-type: none"> • PHP Functions • Data Structures/Arrays • Form Handling, Superglobals and Built-in types | <ul style="list-style-type: none"> • php.net - Data Structures |
| Nov-10 | <ul style="list-style-type: none"> • Session Management • Uploading Files | <ul style="list-style-type: none"> • Butler: Chapter 11: Cookies, Sessions and Access Control • https://www.php.net/manual/en/features.file-upload.post-method.php |
| Nov-17 | <ul style="list-style-type: none"> • Classes, Interfaces and Object-oriented PHP | <ul style="list-style-type: none"> • Butler: Chapter 8: Objects and Classes |

| Week (Tuesdays) | Topics | Readings |
|--------------------|---|---|
| Nov-24 | <ul style="list-style-type: none"> • Introduction to MySQL and Relational Databases • MySQL with PHP • Using PDO | <ul style="list-style-type: none"> • Butler: 3, 4, 12, 13 |
| Dec-1 | <ul style="list-style-type: none"> • RESTful Web Services with PHP | <ul style="list-style-type: none"> • Butler: Chapter 9: Creating an Extensible Framework |
| Dec-8 | Term Project Presentations | |
| Dec-15 | Final Examination | |

