Boston University

MET CS 401: Introduction to Web Application Development

Fall 2011

Instructor Information

Instructor: Larry Robertie
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Office Hours: by Appointment

Course Description

This course focuses on building core competencies in web design and development. It begins with a complete immersion into HTML essentially XHTML and Dynamic HTML (DHTML). Students are exposed to Cascading Style Sheets (CSS), as well as Dynamic CSS. The fundamentals of JavaScript language including object-oriented JavaScript is covered comprehensively. AJAX with XML and JSON are covered, as they are the primary means to transfer data from client and server. Open source libraries such as Prototype, jQuery and Mootools might optionally be covered, as they assist in building cross-browser web applications rapidly and efficiently. The PHP language will be presented and covered; however, students can use other server-side languages; such as ASP.NET, Java (JEE) or Ruby on Rails (RoR) for their projects. The course will focus on MySQL as a relational database system with the final project. Students may use other databases with instructor approval. Students will work with either IIS 6 (or better) or Apache 2, using any conventional operating system when working on their term projects and class laboratories.

Learning Objectives

By successfully completing this course you will be able to:

- Understand web programming concepts.
- Demonstrate client-side competency with knowledge of XHTML and CSS.
- Develop web applications skills using software such as Dreamweaver.
- Create dynamic web pages with JavaScript and Ajax.
- Understand the basics of XML.
- Understand the basics of PHP and MySQL.
- Gain hands-on exposure to the web site design and development process.
- Develop a basic website.

Prerequisites

The prerequisites to this course are introductory programming classes. Students should bring a laptop with its power supply to every class. We will have in-class laboratories; otherwise, you will be writing XHTML with pen and paper; which is not fun at all.

Assignments

During the semester students will be required to write a series of web dased technology applications. All assignments are expected to present successfully, contain meaningful identifiers and comments, be well structured, and generate correct results. Programming assignments must be turned in on time. There will be a penalty of 10% per class day for late programs.

No assignments will be accepted after the close of the last scheduled class. All outstanding programs, quizzes, or exams at that time will receive a failing grade of zero.

Grading

Course grading will be based on the following criteria:
Assignments 30%
Quizzes 30%
Final Project 30%
Class Attendance 20%

Textbook, and Useful Resources

Textbook:

Dynamic Web Application Development using PHP and MySQL
Simon Stobart & David Parsons, Cengage
978-1-84480-753-6

Other Resources:

http://www.robertie.com/edu - class web site
http://www.Zymic.com - free web hosting
http://kompozer.net/ - opensource HTML editor
BU Accademic Alliance - Free Microsoft (Web Expressions)
http://www.mozilla.com/en-US/firefox/fx/ - Firefox Web browser
https://addons.mozilla.org/en-US/firefox/addon/firebug/ - Firebug web development tool for Firefox
http://www.apachefriends.org/en/xampp.html - install development environment locally
http://www.w3schools.com/ - W3Schools Web Tutioials
http://php.net/manual/en/langref.php - The official PHP reference manual

Class Handouts

Students will be responsible for downloading individual class handouts from the instructors website (http://www.robertie.com/edu) prior to each class. A valid Login ID and password (as reviewed on day 1 of the course) will be necessary to access this site. Copies will not be available from the instructor. Online handouts will be available to students two days prior to class and homework assignments will be posted on the evening of class.

Academic Honesty

The course is governed by the Academic Conduct Committee policies regarding plagiarism (any attempt to represent the work of another person as one's own). This includes copying (even with modifications) of a program or a segment of code without attribution. You can discuss general ideas with other people, but the work you submit must be your own. Collaboration is not permitted unless you are otherwise instructed.

Boston University Schedule

Fall 2011

Classes Begin	Tuesday, September 6, 2011
Holiday, Classes Suspended	Monday, October 10, 2011
Parents Weekend	Friday, October 21 - Sunday October 23, 2011
Thanksgiving Recess	Wednesday, November 23– Sunday, November 27, 2011
Classes Resume	Monday, November 28, 2011
Last Day of Classes	Monday, December 12, 2011
Study Period	Tuesday, December 13– Thursday, December 15, 2011
Final Exams Begin	Friday, December 16, 2011
Final Exams End	Wednesday, December 21, 2011

For additional information please visit http://csmet.bu.edu
Computer Science Department at Boston University Metropolitan College

Course Schedule (tentative)

	Date	Subject
1	9/7	Introductions, course outline & expectation
2	9/14	Introduction to Web Architecture
3	9/21	How to write XHTML Documents. Choosing a HTML editor
4	9/28	Cascading Style Sheets
5	10/5	Introduction to JavaScript
6	10/12	Javascript Functions, Arrays and Dates
7	10/19	XML and RSS
8	10/26	Introduction to Ajax - Using Open Source Libraries
9	11/2	Introduction to PHP
10	11/8	PHP Arrays, Date and Time
11	11/16	Using MySQL with PHP and Advanced Topics in Web Application Development (Part I)
12	11/22	Using MySQL with PHP and Advanced Topics in Web Application Development (Part II)
13	11/30	Project Presentations

14	12/7	Project Presentations