

BOROUGH OF MANHATTAN COMMUNITY COLLEGE

City University of New York

**Department of Computer Information Systems
Office S150/Phone: 212-220-1476**

**Web Programming II
CIS 485
Spring 2012
Credits: 3**

**Class hours: 2
Lab hours: 2**

Course Description:

This course will introduce students to server-side web programming. Emphasis is placed on database connectivity in order to solve intermediate level application problems. Students will be tasked with web projects that facilitate understanding of tier design and programming concepts. The overall goal of this course is to create a shopping cart application with a login and database component.

Prerequisites/Co-requisite: Basic Skills: ENG 088, ESL 062, ACR 094, MAT 012/051;
CIS 385 Web Programming I

Learning Outcomes and Assessment

After completing this course, students will be able to:

- **Outcome:** Demonstrate the use of a database with server-side scripting
Assessment: Lab exercises and exam questions
- **Outcome:** Demonstrate the use a Cookie and Session manager with server-side scripting
Assessment: Final project, lab exercises and exam questions
- **Outcome:** Develop a database-driven website
Assessment: Lab exercises
- **Outcome:** Design and develop a shopping-cart application with a login and database component
Assessment: Final Project

General Education Outcomes and Assessment

- **Quantitative Skills** – Students will use quantitative skills and concepts and methods of mathematics to solve problems
Assessment: Use formulas and concepts of mathematics to solve problems in programming assignments
- **Information and Technology Literacy** – Students will collect, evaluate and interpret information and effectively use information technologies
Assessment: Use of a server-side programming language to create application software

Required Text & Readings:

Textbook: **Internet & World Wide Web How to Program Featuring XML and Flash MX, 4th Edition**
Author: **Deitel & Deitel**
Publisher: **Prentice Hall**
ISBN10/13: **ISBN10: 0131752421/ISBN13: 9780131752429**

Other Resources/Technology(if applicable): Flash/USB drive is recommended

Evaluation & Requirements of Students:

Tests(Written and Lab)	50%
Final Exam/Project	40%
Homework/Attendance	<u>10%</u>
	100%

Outline of Topics:

1. Client/Server Architecture Basics
 - a. 3-Tier Architecture
 - b. Model View Controller (MVC)
 - c. Client versus Server-Side Scripting
2. Server-side Scripting Basics
 - a. Web Servers
 - b. Header/ MIME Types
 - c. Common Gateway Interface (CGI)
 - d. Comparing Scripting Languages (JSP, PHP, Perl, ASP)
3. Java Server Pages (JSP) Basics
 - a. Understanding Java Scriptlets(JSP Tag)
 - b. Using JSP Directives and Attributes
 - c. Integrating HTML, CSS and JavaScript with JSP
 - d. Utilizing JavaBeans with JSP
 - e. File and Form Processing in JSP
 - f. JSP Applications (Cookie/Session Manager)
4. Database (DB) Review
 - a. SQL Statements Review
 - b. Creating / Executing SQL Scripts within a RDBMS
 - c. Executing / Processing SQL statements in JSP/JavaBeans
5. Servlet Basics
 - a. Servlet Basic Format
 - b. GET/POST Form Processing
 - c. Integrating Servlet/JSP and JavaBeans
 - d. Servlet Applications(DB Interface, DB-Driven Shopping Cart)
6. XML Basics
 - a. XML Format and Types
 - b. DTDs and Schemas
 - c. Parsing XML with Java
7. AJAX Basics
 - a. Define/Initiate Request Object
 - XMLHttpRequest object
 - b. Handling Response
 - c. Implementing Ajax/JSP Applications
 - d. Utilizing Ajax Toolkits
- e. Clearing web browser cache

College Attendance Policy:

At BMCC, the maximum number of absences is limited to one more hour than the number of hours a class meets in one week. For example, you may be enrolled in a three-hour class. In that class, you would be allowed 4 hours of absence (not 4 days). In the case of excessive absences, the instructor has the option to lower the grade or assign an F or WU grade.

Academic Adjustments for Students with Disabilities:

Students with disabilities who require reasonable accommodations or academic adjustments for this course must contact the Office of Services for Students with Disabilities. BMCC is committed to providing equal access to all programs and curricula to all students.

BMCC Policy on Plagiarism and Academic Integrity Statement:

Plagiarism is the presentation of someone else's ideas, words or artistic, scientific, or technical work as one's own creation. Using the idea or work of another is permissible only when the original author is identified. Paraphrasing and summarizing, as well as direct quotations, require citations to the original source. Plagiarism may be intentional or unintentional. Lack of dishonest intent does not necessarily absolve a student of responsibility for plagiarism.

Students who are unsure how and when to provide documentation are advised to consult with their instructors. The library has guides designed to help students to appropriately identify a cited work. The full policy can be found on BMCC's web site, www.bmcc.cuny.edu. For further information on integrity and behavior, please consult the college bulletin (also available online).