

**BOROUGH OF MANHATTAN COMMUNITY COLLEGE**

City University of New York

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

**Web Programming I  
CIS 385  
Spring 2012  
Credits: 3**

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

**Course Description:**

This course will introduce students to client side web programming. Emphasis is placed on HTML/XHTML, JavaScript, Java Applets and CSS in order to solve elementary level application problems. Students will be tasked with web projects that facilitate understanding of design and programming concepts. The overall goal is to create a shopping cart application with form validation, cookies and Applets.

**Prerequisites:** Basic Skills- ENG 095, ESL 095, ACR095, MAT012/051;  
CSC 210 (Computer Programming II) or Departmental approval

**Learning Outcomes and Assessment**

- **Outcome:** Utilize HTML/XHTML with Cascading Style Sheets(CSS)  
**Assessment:** Lab exercises and exam questions
- **Outcome:** Design and develop web applications utilizing JavaScript and Applets  
**Assessment:** Lab exercises and exam questions
- **Outcome:** Implement a Graphical User Interface (GUI) Applet Application  
**Assessment:** Lab exercises
- **Outcome:** Demonstrate the use of cookies  
**Assessment:** Lab exercises, exam questions and Project
- **Outcome:** Design and develop a cookie-based shopping cart application  
**Assessment:** Project

**General Education Outcomes and Assessment**

- **Quantitative Skills** – Students will use quantitative skills; 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 use information technologies effectively to collect, evaluate and interpret information  
**Assessment:** Use of client-side programming languages to create application software

**Required Text & Readings:**

Textbook: **Internet & World Wide Web How to Program, 5th Edition**  
Author: **Deitel & Deitel**  
Publisher: **Prentice Hall**  
ISBN10/13: **0132151006/ 9780132151009**

**Other Resources/Technology:** Flash/USB drive is recommended

**Evaluation & Requirements of Students:**

Test(s)	50%
Final/Project	40%
Homework/Attendance	<u>10%</u>
	100%

## **Outline of Topics:**

- 1. Internet Basics**
  - a. History
  - b. Standards (World Wide Web Consortium -W3C)
  - c. Internet Protocols (Ex: http, https)
  - d. Web Browsers (Ex: Firefox, Internet Explorer, Safari)
  - e. HTML versus XHTML and HTML 5
- 2. Introduction to HTML**
  - a. Web Document Format/Template
  - b. Basic Elements and Attributes
  - c. Content Layout (Table versus Div)
  - d. Linking Web Documents
  - e. Frames versus Non-Frames
  - f. Embedding Multimedia objects
  - g. Meta Content
- 3. Cascading Style Sheets (CSS)**
  - a. The Style Attribute and Element
  - b. Embedded/Internal versus External CSS
  - c. Measurement and Color Basics
  - d. Borders, Padding & Margin
  - e. Positioning, Dimension & Backgrounds
  - f. CSS Validation and Templates
- 4. Introduction to JavaScript(JS)**
  - a. Control Structures
  - b. Creating User-Defined Functions
  - c. String and Array Manipulation
  - d. Document Object Model (DOM)
  - e. Form Validation
- 5. JavaScript and Dynamic HTML(DHTML)**
  - a. Creating Dynamic Content (Ex: innerHTML)
  - b. Event Handlers and Processors
  - c. User-Defined JavaScript Objects
  - d. Using Ajax Libraries and APIs
- 6. Shopping Cart Website Development**
  - a. Prototyping and Design
  - b. Incorporating Layout/Design Templates
  - c. Adding Vertical/Horizontal and Tab Menus
  - d. Cookies / Cookie Manager
  - e. Creating a Shopping Cart Manager
  - f. Website Validation, Testing and Delivery
- 7. Java Review**
  - a. Control Structures
  - b. Methods & Classes
  - c. Array and String Manipulation
  - d. Inheritance and Interfaces
- 8. Applet User Interface**
  - a. Applet Basics
  - b. Creating a User Interface (UI)
  - c. Applets and Files / Multimedia (Optional)
  - d. MVC Design & Implementation
  - e. Multithreading (Optional)
  - f. Deploying/Testing Applets

## **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 side, [www.bmcc.cuny.edu](http://www.bmcc.cuny.edu). For further information on integrity and behavior, please consult the college bulletin (also available online).