

BOROUGH OF MANHATTAN COMMUNITY COLLEGE

City University of New York

Department of Computer Information Systems

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Web Programming I

CIS 385

Fall 2017

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 110 (Computer Programming I) 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, 4th Edition**

Author: **Deitel & Deitel**

Publisher: **Prentice Hall**

ISBN10/13: **0131752421 / 9780131752429**

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. Java Review
 - a. Control Structures
 - b. Methods & Classes
 - c. Array and String Manipulation
2. Applet User Interface
 - a. Applet Basics
 - b. Creating a User Interface(UI)
 - c. Applets and Files/Multimedia
 - d. MVC Design & Implementation
 - e. Multithreading (Optional)
 - f. Deploying/Testing Applets
3. Internet Basics
 - a. History
 - b. Standards (World Wide Web Consortium -W3C)
 - c. Internet Protocols (Ex: http, ftp)
 - d. Web Browsers (Ex: Internet Explorer, Firefox)
4. Introduction to HTML/XHTML
 - a. HTML versus XHTML
 - b. Web Document Format/Template
 - c. Web Document Editors
 - d. Basic Elements and Attributes
 - e. Embedding Multimedia objects
 - f. Content Layout(Table versus Div)
 - g. Linking Web Documents
5. 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
6. Introduction to JavaScript
 - a. Control Structures
 - b. Functions and Objects
 - c. String and Array Manipulation
 - d. Document Object Model(DOM)
 - e. Dynamic HTML(Ex: innerHTML)
 - f. Event Handlers and Processors
 - g. Cookies/Cookie Manager
 - h. Form Validation and Processor
 - i. Using JavaScript/Ajax Libraries and APIs
7. Shopping Cart Website Development
 - a. Prototyping and Design
 - b. Frames versus Non-Frames Approach
 - c. Incorporating Layout/Design Templates
 - d. Adding Vertical/Horizontal and Tab Menus
 - e. Creating Shopping Cart Manager
 - f. Using Shopping Cart APIs
 - g. Website Validation, Testing and Delivery

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. For further information on integrity and behavior, please consult the college bulletin (also available online).