

# Common Course Outline

CMSC 157

Internet Programming

3 Semester Hours

## The Community College of Baltimore County

### Description

#### **Internet Programming**

Discusses programming dynamic and interactive Internet web pages with graphics, image maps and animation; explores Advanced HTML and Introduction to JavaScript and requires lab time outside of class for programming assignments.

Prerequisite: CMSC 155 or CINS 155 or consent of instructor.

### Overall Course Objectives

Upon successfully completing the course, the student will be able to:

1. apply course related materials to ADA guidelines enabling them to create web pages accessible to people who use assistive technologies.
2. develop an appreciation about how cultural differences and age will effect visitor's impressions of websites.
3. develop an understanding of how to design webpages to meet the demands of the pages intended market audience.
4. understand and follow current copyright laws.
5. critique HTML document on the WWW.
6. create basic HTML documents using version 4.0 as the standard. Included in this objective is using basic and advanced tags.
7. understand file hierarchy and website organization. This objective includes linking between web pages. Both absolute and relative URL's are covered in this objective.
8. describe and understand the difference between Java and JavaScript.
9. understand the differences between client-side and server-side event handling.
10. understand and apply the both variables and literals.
11. develop an understanding of Boolean Algebra.
12. understand programming concepts including repetitive structures, conditional structures and functions. create interactivity via image maps, form handling, roll-overs, alert boxes and confirm boxes.
13. be able to analyze and debug both HTML code and JavaScripts.

### Major Topics

- I. Social Issues, Legal Issues and the WWW
  - A. Why people create websites
  - B. Web accessibility for the disabled, ADA Guidelines
  - C. Copyright Laws
  - D. Fundamental Design Principles
- II. Hyper Text Markup Language
  - A. HEAD, BODY tags, META Information, and introductory tags.
  - B. Lists, Tables, Forms and Frames
  - C. Images, Image Maps and WYSIWYG

- D. File Hierarchy, links (including the difference between relative and absolute)
- III. Java vs. JavaScript
  - A. Client-Side vs. Server-Side form handling
  - B. Browser compatibility and JavaScript
  - C. Security Issues
- IV. Introduction to Programming Concepts (using JavaScript)
  - A. Punctuation
  - B. Variables vs. Literals (Constants)
  - C. Functions
  - D. Arrays
  - E. Conditionals
  - F. Forloops
- V. Introduction to JavaScript
  - A. Objects
  - B. Properties
  - C. Methods
  - D. Event Handling
- VI. Optional Topics
  - A. Cascading Style Sheets
  - B. Perl

### **Course Requirements**

Grading: Grading procedures will be determined by the individual faculty member, will be provided the first week of class, and will include the following:

1. At least two Tests, Exams, and/or Quizzes: Individual faculty will notify students of the testing procedures to be used.
2. Written Paper: The student will use the Internet, library, and other sources of information to write a paper on a topic of his/her interest, as approved by the instructor. References will be cited according to guidelines.
3. Web Page: Each student will be required to design, create, and publish a web page.
4. Comprehensive Final Exam: The course will include a comprehensive final exam, which may include a final project.
5. Final Grades: Grades will be determined by individual faculty members.

The Community College of Baltimore County is committed to providing a high-quality learning experience that results in growth in knowledge, attitudes, and skills necessary to function successfully as a transfer student, in a career and as a citizen. To accomplish this goal, we maintain high academic standards and expect students to accept responsibility for their individual growth by attending classes, completing all homework and other assignments, participating in class activities and preparing for tests.

We take seriously our responsibility to maintain high-quality programs and will periodically ask you to participate in assessment activities to determine whether our students are attaining the knowledge, attitudes and skills appropriate to various courses and programs. The assessment activities may take many different forms such as surveys, standardized or faculty-developed tests, discussion groups or portfolio evaluations. We ask that you take these activities seriously so that we can obtain valid data to use for the continuous improvements of CCBC's course and programs.

### **Other Course Information**

This course is one of the courses in the Internet and Multimedia Technology Program at CCBC Essex.