

**Common Course Outline**  
**CSIT 125**  
**Introduction to JavaScript**  
**4 Credits**

**The Community College of Baltimore County**

**Description**

**CSIT 125 – Introduction to JavaScript** introduces the creation of interactive and dynamic web sites by integrating JavaScript into site structures. Major topics include the Documents Object Model (DOM), event-driven scripting, functions, parameter passing, conditionals, loops and object-oriented principles. Students create web pages and web sites containing interactive components developed with JavaScript.

**4 Credits**

**Prerequisite: CSIT 121 or consent of the program coordinator.**

**Overall Course Objectives**

Upon completion of this course students will be able to:

1. describe and explain the relationship among Extensible HyperText Markup Language (XHTML), Cascading Style Sheets (CSS), JavaScript, and the DOM;
2. relate file hierarchy and website organization;
3. describe limitations of creating interactivity including browser support and differences;
4. demonstrate how JavaScript is integrated in a web document;
5. examine the differences between client-side and server-side event handling;
6. describe common JavaScript events;
7. modify CSS properties using JavaScript;
8. define, create and use JavaScript functions including parameter passing;
9. define and use variables in JavaScript functions;
10. demonstrate and implement JavaScript conditional and looping statements in functions;
11. apply JavaScript's core objects including the Array, Boolean, Date, Math and String objects;
12. use XHTML, CSS and JavaScript to develop an interactive web site;
13. demonstrate the basics of JQuery; and
14. identify and describe emerging JavaScript frameworks and standards.

**Major Topics**

- I. JavaScript Introduction
  - A. Language introduction
  - B. Script integration and style
  - C. Functions

- II. DOM
  - A. Introduction and origins
  - B. Element attributes
  - C. Text nodes
  - D. Style properties
- III. Handling DOM Events
  - A. Events and event handlers
  - B. Cross-browser events
- IV. Images and Animation
  - A. Design considerations
  - B. Image manipulation through events
  - C. Image map rollover
  - D. Changing background colors
- V. Forms and Validation
  - A. Rationale for validation
  - B. Regular expressions
  - C. Improving form accessibility and functionality
- VI. Making Your Pages Dynamic
  - A. Day/time format
  - B. Referrer pages
  - C. Dynamic text and elements
- VII. JQuery Introduction
  - A. Basic application
  - B. DOM manipulation
  - C. Basic code effects
- VIII. Server Communication
  - A. Protocols
  - B. Using AJAX and coding basics
  - C. AJAX with JQuery
  - D. AJAX with JSON
- IX. Emerging Web Frameworks
  - A. Introduction to modern JS frameworks
  - B. Adding dynamic elements into a web page
  - C. Compare frameworks

### **Course Requirements**

Grading/exams: Grading procedures will be determined by the individual faculty member but will include the minimum of the following:

- Two exams
- Ten web page development projects

Written Assignments: Students are required to use appropriate academic resources.

**Other Course Information**

This course is taught in a computerized environment.

This is an elective course for the Web Development option of the Information Technology Degree Program.

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