

# COURSE OUTLINE

CMSY-152

JavaScript

1 Semester Hour

## HOWARD COMMUNITY COLLEGE

### Description

This course is an introduction to computer programming using JavaScript . It will present intermediate topics needed to create, design, write, test, debug and document programs to run on client machines with JavaScript. This course is designed to teach the JavaScript used in DHTML and to teach computer programming skills that can be used in learning other programming languages, especially those that work with HTML.

**Prerequisite:** CMSY-148 **OR** (CMSY-141 or CMSY-190) **AND** (CMSY-128 or CMSY-129) (1 hour weekly.)

### Overall Course Objectives:

Upon successful completion of this course students will:

1. Master fundamental concepts regarding the use of JavaScript as a client-side scripting language and the elements of the Document Object Model.
2. Understand the role of sequence in programming, looping and conditional branching.
3. Use JavaScript for DHTML, including rollovers and creating pop-up windows.
4. Use JavaScript for form validation, to handle events on a form, and to write scripts for list boxes, check boxes, and radio buttons.

### Major Topics

Topics covered will include:

1. Fundamental concepts: Document Object Model, objects, properties, values, methods, events and event handlers, variables, arrays and functions, cookies.
  2. The principles of working with form elements and images.
  3. Working with windows.
- 
1. Introduction to JavaScript
    - Introduction to the course
    - Placing JavaScript code in HTML pages
    - Using comments
  2. JavaScript Basics
    - Data Types
    - Understanding Variables, and Variable scope
    - JavaScript Reserved Words
    - Operators
    - Defining and calling Functions
    - Writing a JavaScript User-Defined Function
    - JavaScript Objects, Methods, and Properties
    - Understanding Events and Event Handlers
    - Form Validation

3. Using Arrays
  - Defining an array and creating an array instance
  - Creating Pop-up windows
  - Adding scrolling messages
  
4. Working with windows
  - Creating new windows
  - Writing to a window object from a document
  - Referring to a window from other window
  
5. Using objects
  - Creating an object using the Object data type
  - Using the delete operator to delete an object
  - Using the With Statement to reference an object
  - Looping through the elements of an object

### **Course Requirements**

- Grading criteria**      Specific criteria, assignments and activities for evaluating student mastery of objectives will be described in the individual class syllabus, but will include the following:
1. Projects developing web page elements with HTML, JavaScript.
  2. Written tests and quizzes

### **Other Course Information**

This course is a Business Elective, and an Internet Elective.