

## **Course Syllabus Part I**

### **CSD 360 Interactive Development with JavaScript**

**3 credit hours**

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#### **Course Description**

This course examines the techniques of programming with JavaScript. Topics include the functionality and implementation of vanilla JavaScript, and how to modify it to work in modern browsers. Students will be able to employ front-end JavaScript to add interactivity and custom behaviors to a variety of web applications. Additional JavaScript libraries such as JQuery.js and React.js will be discussed. Students will be introduced to cross-platform, JavaScript runtime environments such as Node.js and JSON.

#### **Course Prerequisites**

CSD 340 Web Development with HTML and CSS

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#### **Course Skills**

- Write web pages that use JavaScript to manipulate page display
  - Design, document, and test web pages
  - Post web pages on the Internet giving users web access
  - Write web page that modify their DOM
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#### **Course Objectives**

- Explain the value of JavaScript in contemporary web design.
  - Describe JavaScript functionality in modern browsers.
  - Identify various elements of the JavaScript language.
  - Employ JavaScript to add interactivity or custom behavior.
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#### **Grading Scale**

93 – 100% = A	87 – 89% = B+	77 – 79% = C+	67 – 69% = D+
90 – 92% = A-	83 – 86% = B	73 – 76% = C	63 – 66% = D
	80 – 82% = B-	70 – 72% = C-	60 – 62% = D-
			0 – 59% = F

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## Topic Outline

- I. Introduction
  - A. History
  - B. Language Type
  - C. JavaScript Placement
- II. Language Style
  - A. Syntax
  - B. Comments
  - C. Statements
- III. Variables
  - A. Data Type
  - B. Scope
- IV. Operators
  - A. Arithmetic
  - B. Assignment
  - C. Comparison
  - D. Logical
  - E. String
- V. Selection
  - A. If
  - B. If/Else
  - C. If/Else/If
  - D. Switch
  - E. Ternary
- VI. Iteration
  - A. While
  - B. Do/While
  - C. For
  - D. Loop Statements
- VII. Arrays
  - A. Creating
  - B. Elements
  - C. Array Object
  - D. Methods
  - E. Iteration
- VIII. Functions
  - A. Built-In Functions
  - B. Creating/Writing Functions
- IX. Events
  - A. Window
  - B. Form
  - C. Keyboard

- D. Mouse
- X. DOM Nodes/Elements
  - A. Node
  - B. Element
  - C. NodeList
  - D. Attribute
- XI. Dom Interface
  - A. Accessing Nodes
  - B. Altering Nodes
  - C. Add, Remove, Replace Nodes