

SOUTHEAST COMMUNITY COLLEGE
CONSTRUCTION MANUFACTURING AND TECHNOLOGY DIVISION
Computer Information Technology Program
Revision Date: August 21, 2023

I. CATALOG DESCRIPTION

Course Number: INFO2431
Course Title: JavaScript & jQuery
Prerequisite(s): INFO1431, MATH1020 or higher, and either INFO1414 or INFO1434
Catalog Description: This course covers client-side web programming using JavaScript and the jQuery library. Topics include manipulating the Document Object Model, HTML forms, user interaction, and animation.

Credit Hours: 3
Class Hours: 45
Lab Hours: 0
Total Contact Hours: 45

II. COURSE OBJECTIVES: *Course will:*

- A. Introduce the JavaScript programming language.
- B. Demonstrate user interaction with client-side JavaScript.
- C. Present the uses of the JQuery library.
- D. Demonstrate defining and creating objects.
- E. Present AJAX and JSON.
- F. Explore Node.js.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

- A. Student Learning Outcomes: *Student will be able to:*
 - 1. Solve problems using functions, control structures and arrays in JavaScript.
 - 2. Demonstrate the difference between arrays in JavaScript and Java/C#.
 - 3. Develop user interactive client-side web applications.
 - 4. Use JQuery to manipulate the DOM.
 - 5. Design and create objects.
 - 6. Use AJAX to retrieve JSON data.
 - 7. Modify a webpage using retrieved JSON.
 - 8. Describe the uses of Node.js.
- B. General Education Learning Outcomes (GELOs)
 - 1. GELO #3: Critical Thinking & Problem Solving
Outcome 2: Synthesize information to arrive at reasoned solutions to problems.

IV. CONTENT/TOPICAL OUTLINE

- A. The JavaScript programming language
 - 1. Variables and types
 - 2. Control structures
 - 3. Functions and function expressions
 - 4. Arrays
- B. Input/output and client-side web scripting
- C. JQuery
 - 1. Selectors
 - 2. Animation
 - 3. DOM manipulation

- D. Objects
- E. AJAX and JSON
- F. Node.js

V. INSTRUCTIONAL MATERIALS

- A. Required Text(s): Delamater and Ruvalcaba, *Murach's JavaScript and jQuery* (Refer to CID and/or instructor for current edition)
- B. Other resources: Computer and Internet access

VI. METHODS OF PRESENTATION/INSTRUCTION

- A. Methods of presentation typically include a combination of the following:
 - 1. Technology enhanced lectures
 - 2. Engaged learning activities

VII. METHODS OF EVALUATION

- A. Methods of evaluation, although determined by the individual instructor, traditionally includes a combination of the following:
 - 1. Attendance and/or participation activities
 - 2. Unit activities
 - 3. Programming assignments
 - 4. Tests and quizzes

VIII. SPECIFIC COURSE REQUIREMENTS

- A. This course will not qualify as a prerequisite if the student receives a final grade below a C (70%).