

# JavaScript I

**WEB 114-002 – Wednesday 6 PM – 8:50 PM – RC 355**

**Johnson County Community College**

**Computer Science and Information Technology Division**

**Spring 2017 Course Syllabus**

**Instructor Information:** Patrick Lafferty, Associate Professor, Web Development and Digital Media  
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T: 8:50 PM – 9:20 PM  
W: 1:00 PM – 2:00 PM, 2:50 PM – 4:50 PM, 8:50 PM – 9:20 PM  
R: 5:50 PM – 6:20 PM  
Sat: 11:50 AM – 12:20 PM

**Course Information:** Credit hours: 2 Contact hours: 3 Lecture hours: 3

**Pre- or Co-requisites:** WEB 110

**Required textbook:** JavaScript by Vodnik, 6<sup>th</sup> Edition, ISBN: 9781305078444

**Supplies:** Removable storage (preferably a flash drive)

**Other requirements:**

**Course Description:** This course provides a foundation to client-side scripting using the JavaScript language. Students will write, validate and debug JavaScript code to enhance the functionality of Web pages. Topics to be covered include common applications such as responding to user actions, creating pop-up dialog boxes and controlling the Web browser. Students will apply JavaScript to manipulate and validate Web form elements and data and to build menus and navigational structures.

## **Course Objectives:**

Upon successful completion of this course, the student should be able to:

1. Manipulate Web forms and data.
2. Build a menu for a website with JavaScript.
3. Use JavaScript operators.
4. Write JavaScripts with control structures.
5. Apply advanced debugging techniques.
6. Describe the purpose and relationship between HyperText Markup Language (HTML), client-side and server-side scripting languages.
7. Integrate JavaScript and HTML.
8. Create popup windows and scrolling messages.
9. Write JavaScript to respond to user events.
10. Validate and debug JavaScript.

## **Content Outline:**

### I. JavaScript Programming

- A. Define HTML and explain the use of HTML tags.
- B. Define JavaScript cookies and variables.
- C. Define expression and describe the arithmetic operators.
- D. Discuss the use of JavaScript functions.
- E. Define objects, properties, methods and events.
- F. Describe the purpose of event handlers, frames and arrays.

### II. JavaScript and HTML

- A. Describe how to integrate JavaScript and HTML.
- B. Insert script tags on a Web page.
- C. Set the background color of Web page using JavaScript.
- D. Extract the system date.
- E. Use several variables to construct a message.
- F. Write a user-defined function that displays a message and links viewers to a new Web page.
- G. Use the lastModified property to display the last modified document date.

### III. Pop-Up Windows and Scrolling Messages

- A. Explain the four basic components of a scrolling message.
- B. Write a user-defined function.
- C. Use the open() method to display another Web page in a pop-up window.

### IV. Image and Form Objects

- A. Create an image object.
- B. Write a rolling banner function.
- C. Create a dynamic greeting.
- D. Write a user-defined function that calculates the number of days to a future date.
- E. Write a user-defined function that changes an image when the mouse pointer passes over a related link.

### V. Validation

- A. Describe JavaScript syntax.
- B. Validate JavaScript.

VI. Web Form Validation

- A. Apply the form object to form controls.
- B. Manipulate form elements.
- C. Validate form data.

VII. Menus

- A. Design a website menu system.
- B. Create drop-down menus using JavaScript.

VIII. JavaScripts with Advanced Operators

- A. Write functions using bitwise operators.
- B. Write conditional statements with comparison and Boolean operators.
- C. Create and initialize variables with assignment operators.
- D. Write functions that calculate values using arithmetic operators.

IX. Control Structures

- A. Write a looping function that uses the Break command.
- B. Write a looping function that uses the Continue command.
- C. Write a Do-While loop that lists the names of the images in a Web page.
- D. Write a For-In loop that checks the value store in every element of an array.
- E. Write a For loop that initializes the contents of an array.
- F. Write an If / Else structure that branches program execution.
- G. Write a Switch structure that displays one of many different error messages for data validation.
- H. Write a While loop that processes the contents of a text string.

X. JavaScript Debugging

- A. Use lint testing.
- B. Test, debug and correct JavaScript.

**Methods of Evaluation:**

Evaluation of student mastery of course competencies will be accomplished using the following methods:

**Grade Distribution:**

10 projects @ 12pts each	60%
Midterm quiz @ 40 points	
Final quiz @ 40 points	40%
	100%

**Grading Scale:**

A = 90 – 100
B = 80 – 89
C = 70 – 79
D = 60 – 69
F = below 60

**On Grades:**

While I hope you earn a good grade in this course, recognize that learning alone will not earn you high marks. Some of my most inquisitive and bright students have failed this class because they did not do the work required. DO NOT LET THIS HAPPEN TO YOU!

**Late Projects and Papers:**

Late projects and papers will receive a lowered grade. The grade *will be lowered one full letter grade* for *each day*, not class period, the work is late.

As a registered student you are automatically given a student email account. Please remember that your conduct online is governed by the [JCCC Student Code of Conduct 319.01](#), including the [JCCC Social Media Policy 520.00](#) and [JCCC Social Media Guidelines 520.01](#). All communications outside of class will be communicated via the class email. All FERPA-protected information will only be communicated via your stumail account. You are required to check your student email account at least once per day as part of your class participation grade. It is strongly encouraged that you check both more frequently than that.

**On participation:**

For this course, your submissions will count as your attendance. If students who do not submit required work as noted by each course lesson for the first two weeks will be counted absent and dropped from the course in accordance with JCCC policy.

As a registered student, you are also automatically given a student server account. Please visit <http://students.jccc.net> to set up your student email account and your student server space.

**ADA compliance statement**

If you are a student with a disability and you will be requesting accommodations, it is your responsibility to contact Access Services. Access Services will recommend any appropriate accommodations to Professor Lafferty and his Assistant Dean. Professor Lafferty and his Assistant Dean will identify for you which accommodations will be arranged.

JCCC provides many services to allow persons with disabilities to participate in educational programs and activities. Appropriate documentation of disability will be required to obtain support services. If you need support services, contact the Access Services in 202 Student Center or call (913) 469-8500 ext. 3974 or (914) 469-3885 TDD.

**Academic Dishonesty Statement**

No student shall engage in behavior that, in the judgment of Professor Lafferty, may be construed as cheating. This may include, but is not limited to, plagiarism or other forms of academic dishonesty such as the acquisition without permission of tests or other academic materials and/or distribution of these materials. This includes students who aid and abet, as well as those who attempt such behavior.

This course is conducted via the BrightSpace/Desire2Learn Learning Management System, available at <https://online.jccc.edu>. The schedule and all applicable assignments are available there.

*Report all campus emergencies to the JCCC Police Department.*

**Dial 4111** from any campus phone

**Dial 913-469-2500** from any cell phone

**In the event of an emergency, move to a secure location on the third floor of the Regnier Center.**

## RC, Third Floor

