# RARITAN VALLEY COMMUNITY COLLEGE ACADEMIC COURSE OUTLINE

### CISY 244 JAVASCRIPT

#### I. Basic Course Information

A. Course Number and Title: CISY 244 - JavaScript

B. New or Modified Course: Modified

C. Date of Proposal: Semester: Fall Year: 2017

D. Effective Term: Fall 2018

E. Sponsoring Department: Computer Science

F. Semester Credit Hours: 3

G. Weekly Contact Hours: Lecture: 2

Laboratory: 2

Out of class student work per week: 5

H. Prerequisites: Computer Concepts and Programming – CISY 103 or Foundations of Computer Science – CISY 105 and Web Page Development I - CISY 225

I. Laboratory Fees: Yes

J. Name and Telephone Number or E-Mail Address of Department Chair and Divisional Dean at time of approval: Steven Schwarz – steven.schwarz@raritanval.edu (Chair), Sarah Imbriglio – Sarah.Imbriglio@raritanval.edu (Divisional Dean)

# **II. Catalog Description**

Prerequisite: CISY 103 – Computer Concepts and Programming or CISY 105 – Foundations of Computer Science and CISY 225 – Web Page Development I. JavaScript is an object-oriented programming language used primarily on Web applications. Along with HTML and CSS, JavaScript serves as one of the web's core technologies. The topics covered in the course include navigating the Document Object Model (DOM), core language functionality, and modern JavaScript libraries.

### **III. Statement of Course Need**

- A. JavaScript is a popular Scripting language used in Industry to design and implement dynamic web pages. Knowledge of this subject matter is essential to those students pursuing programs in Web Development or Web Programming.
- B. This course does have a lab component. Students are required to use the software in the Computer labs in order to complete their assignments.
- C. This course generally transfers as a Computer Science Elective

# IV. Place of Course in College Curriculum

- A. Free Elective
- B. This course meets a program requirement for:
  - a. Web Developer A.S.
  - b. Web Developer Certificate

This course is an option for:

- c. Interactive Digital Media, A.A.S
- d. Multimedia Communications, Certificate
- C. CISY Programming Elective
- D. Course Transferability: for New Jersey schools, go to the NJ Transfer website, www.njtransfer.org . For all other colleges and universities, go to their individual websites.

# **V. Outline of Course Content**

- A. Introduction to JavaScript and the Web
- B. Data types and variables
- C. Decisions and loops
- D. Functions and scope
- E. Objects
- F. String Manipulation
- G. The Document Object Model
- H. DOM Scripting
- I. Events
- J. JSON
- K. Data Storage
- L. AJAX
- M. JQuery
- N. Current JavaScript utilities, libraries and APIs.

# **VI. General Education and Course Learning Outcomes**

# A. General Education Learning Outcomes:

# At the completion of the course, students will be able to:

1. Solve information processing problems by using the JavaScript Programming Language to produce well designed computer programs (GE-NJ 4)

# **B.** Course Learning Outcomes:

# At the completion of the course, students will be able to:

- 1. Differentiate between Client and Server Side programming
- 2. Explain the relationship among HTML, CSS, and JavaScript
- 3. Design and implement JavaScript client side programs that incorporate arrays, control structures, and functions
- 4. Create Web Pages that implement JavaScript programs
- 5. Manipulate the Document Object Model (DOM) using JavaScript.

# **C.** Assessment Instruments

- 1. demonstrations
- 2. portfolios
- 3. computer programs

#### **VII. Grade Determinants**

- A. Lab Projects
- B. Homework Assignments
- C. Ouizzes
- D. Final Exam
- E. Final Project

The primary formats, modes, and methods for teaching and learning that may be used in the course:

- A. lecture/discussion
- B. laboratory

# **VIII. Texts and Materials**

A. Suggested Textbook – *Beginning JavaScript Fifth Edition* by Jeremy McPeak and Paul Wilton. ©2015. John Wiley & Sons.

(Please Note: The course outline is intended only as a guide to course content and resources. Do not purchase textbooks based on this outline. The RVCC Bookstore is the sole resource for the most up-to-date information about textbooks.)

# IX. Resources

A. Computer lab with Internet Connectivity

# X. Honors Option N/A