

Course Outline

COURSE: CSIS 84 **DIVISION:** 50 **ALSO LISTED AS:**

TERM EFFECTIVE: Spring 2020 **CURRICULUM APPROVAL DATE:** 10/8/2019

SHORT TITLE: JAVASCRIPT PROGRAM

LONG TITLE: JavaScript Programming

<u>Units</u>	<u>Number of Weeks</u>	<u>Type</u>	<u>Contact Hours/Week</u>	<u>Total Contact Hours</u>
2	18	Lecture:	2	36
		Lab:	0	0
		Other:	0	0
		Total:	2	36

COURSE DESCRIPTION:

Fundamentals of JavaScript client-side programming for Web pages requiring data collection or other user interaction. Students will create Web pages that execute on the client (personal system) using JavaScript. This course has the option of a letter grade or pass/no pass. **ADVISORY:** CSIS 6

PREREQUISITES:

COREQUISITES:

CREDIT STATUS: C - Credit - Degree Non Applicable

GRADING MODES

- L - Standard Letter Grade
- P - Pass/No Pass

REPEATABILITY: N - Course may not be repeated

SCHEDULE TYPES:

- 02 - Lecture and/or discussion
- 05 - Hybrid
- 72 - Dist. Ed Internet Delayed

STUDENT LEARNING OUTCOMES:

1. Describe and apply the capabilities of JavaScript for client-side programming.

Measure of assessment: Homework Assignments, Exam

Semester/Year assessed, or planned Semester/Year of assessment: Spring 2020

2. Use problem solving techniques to write simple web applications.

Measure of assessment: Homework Assignments

Semester/Year assessed, or planned Semester/Year of assessment: Spring 2020

CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS

Curriculum Approval Date: 10/8/2019

4 HOURS

CONTENT:

HTML language and placement of JavaScript.

Events, variables, and values.

Assignments, expressions and operators.

HTML and JavaScript comments.

STUDENT PERFORMANCE OBJECTIVES:

Set-up a JavaScript program in a web page.

Use JavaScript comments, variables, and values.

Write programs that use the different JavaScript data types.

Describe the roles of HTML, CSS, and JavaScript code within the web environment.

Use basic web development tools.

4 HOURS

CONTENT:

Functions, Objects, and I/O.

Defining and using objects.

Defining and using functions.

Prompting and alerting users.

STUDENT PERFORMANCE OBJECTIVES:

Define and use simple user-defined objects.

Define and use functions.

Create prompts and alerts.

4 HOURS

CONTENT:

Control Flows, Loops, and Arrays.

Decisions and repetitions using comparisons.

STUDENT PERFORMANCE OBJECTIVES:

Write programs that use nested IF statements and comparisons.

Write programs that use FOR and WHILE loops and comparisons.

4 HOURS

CONTENT:

Built-in Objects.

Working with dates and times.

Working with strings.

Working with arrays.

STUDENT PERFORMANCE OBJECTIVES:

Write code to use and process times and dates.

Write code to use string and array methods.

4 HOURS

CONTENT:

Document Object Model.

How to traverse the DOM.

HTML collections and node types.

Accessing elements and attributes on a web page.

Updating markup and style.

Writing text into a document on the fly.

STUDENT PERFORMANCE OBJECTIVES:

Write code to add text to pages on the fly.

Update HTML markup and CSS.

Test and debug their own JavaScript applications.

4 HOURS

CONTENT:

Menus, Tabs, and Navigation.

Using select-and-go for navigation.

Creating dynamic menus, tabs, drop-downs.

STUDENT PERFORMANCE OBJECTIVES:

Write code to implement select-and-go navigation.

Write code for dynamic menus, tabs, and drop-downs.

4 HOURS

CONTENT:

Using JavaScript with forms.

Verifying passwords.

Checking form items for correctness.

Using radio and checkboxes.

STUDENT PERFORMANCE OBJECTIVES:

Write JavaScript programs to validate input data.

Write JavaScript programs to check the form for correctness.

4 HOURS

CONTENT:

Working with windows and iframes.

Image links and scrolling a window.

Using JavaScript to update windows and frames.

Positioning windows and alert windows.

Plug-in detection.

STUDENT PERFORMANCE OBJECTIVES:

Use JavaScript to update and position windows.

Use JavaScript to scroll windows or frames.

Use plug-in detection to modify web pages.

2 HOURS

CONTENT:

How cookies are used.

Baking your first cookie.

Reading and showing your cookies.

Using cookies and detecting cookies.

Using cookies to keep track of user preferences.

Working with referrer pages.

STUDENT PERFORMANCE OBJECTIVES:

Create, use, and delete cookies.

Write code to use multiple cookies.

Write code to create referrer pages.

2 HOURS

Final

METHODS OF INSTRUCTION:

Lecture, computer demonstration and web work.

OUT OF CLASS ASSIGNMENTS:

Required Outside Hours:

Assignment Description:

Read text and do the homework assigned in class.

Set-up web pages that use JavaScript.

Search the web for JavaScript sites and tutorials.

Write programs that need different data types.

Use JavaScript to do arithmetic.

Required Outside Hours: 8

Assignment Description: Read text and do the homework assigned in class.

Define and update an object.

Define and invoke a function.

Use prompt and alert boxes.

Required Outside Hours: 8

Assignment Description: Read text and do the homework assigned in class.

Write programs that use arrays.

Write programs that use comparisons in complex decisions and loops.

Required Outside Hours: 8

Assignment Description: Read text and do the homework assigned in class.

Write code to use and manipulate dates and times.

Write code to use and manipulate strings and arrays.

Required Outside Hours: 8

Assignment Description: Read text and do the homework assigned in class.

Use API to traverse the DOM to access elements and attributes.

Update HTML markup and style.

Write code to put text in a page depending on user response.

Required Outside Hours: 8

Assignment Description: Read text and do the homework assigned in class.

Write code to use select-and go navigation.

Write code to make menus, tabs, and drop-downs dynamic.

Required Outside Hours: 8

Assignment Description: Read text and do the homework assigned in class.

Write code to verify form fields such as: passwords, email addresses and ZIP codes.

Required Outside Hours: 8

Assignment Description: Read text and do the homework assigned in class.

Write code to scroll a frame and use image maps.

Write code to position windows and update frames.

Use if statements to detect plug-ins.

Required Outside Hours: 8

Assignment Description: Read text and do the homework assigned in class.

Write code to create cookies.

Write code to use and delete cookies.

Write code to handle multiple cookies.

Write code to work referrer pages.

METHODS OF EVALUATION:

Problem-solving assignments

Percent of total grade: 50.00 %

Problem-solving demonstrations: 40% - 60% Homework Assignments, Quizzes, Exams

Skill demonstrations

Percent of total grade: 40.00 %

Skill demonstrations: 30% - 50%

Objective examinations

Percent of total grade: 10.00 %

Objective examinations: 10% - 20% Multiple Choice, True/False, Matching Items, Completion

REPRESENTATIVE TEXTBOOKS:

Ethan Brown. Learning JavaScript: JavaScript Essentials for Modern Application Development, 3rd Edition. Sebastopol, CA: O'Reilly Media, Inc., 2016.

ISBN: 10: 1491914912; 13: 978-1491914915

Reading Level of Text, Grade: 12+ Verified by: Ellen Venable

Recommended Representative Textbooks

Required Other Texts and Materials

OR JavaScript: The Definitive Guide: Activate Your Web Pages by Dan Flanagan Publisher: O'Reilly Media, Inc.; 6th Edition (May 13, 2011) ISBN - 10: 0596805527; ISBN - 13: 978-0596805524

OR Optional references: www.w3schools.com; [https://developer.mozilla.org/en-US/docs/Learn/JavaScript/First_steps/What is JavaScript](https://developer.mozilla.org/en-US/docs/Learn/JavaScript/First_steps/What_is_JavaScript); Selected readings from the internet.

ARTICULATION and CERTIFICATE INFORMATION

Associate Degree:

CSU GE:

IGETC:

CSU TRANSFER:

Transferable CSU, effective 202030

UC TRANSFER:

Transferable UC, effective 202030

SUPPLEMENTAL DATA:

Basic Skills: N

Classification: Y

Noncredit Category: Y

Cooperative Education:

Program Status: 1 Program Applicable

Special Class Status: N

CAN:

CAN Sequence:

CSU Crosswalk Course Department:

CSU Crosswalk Course Number:

Prior to College Level: Y

Non Credit Enhanced Funding: N

Funding Agency Code: Y

In-Service: N

Occupational Course: D

Maximum Hours:

Minimum Hours:

Course Control Number: CCC000116682

Sports/Physical Education Course: N

Taxonomy of Program: 070710