Cerro Coso College

Course Outline of Record Report

10/14/2021

DMAC211 : Web Scripting with JavaScript

General Information

Author:	• Suzanne Ama • Stallings, Michelle • Taton, Vickie
Course Code (CB01) :	DMAC211
Course Title (CB02) :	Web Scripting with JavaScript
Department:	Business Information Technolog
Proposal Start:	Spring 2022
TOP Code (CB03) :	(0614.30) Website Design and Development
SAM Code (CB09) :	Clearly Occupational
Distance Education Approved:	Yes
Course Control Number (CB00) :	CCC000174335
Curriculum Committee Approval Date:	11/18/2016
Board of Trustees Approval Date:	03/09/2017
External Review Approval Date:	02/25/2014
Course Description:	This course provides students with the skills to create interactive web pages with JavaScript, which first requires learning the principles of JavaScript language. Practical application of JavaScript includes navigation rollover effects, manipulating windows, manipulating form data, validating forms, and creating drop down menus. Students must be proficient in Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS) to be successful in this class.
Submission Type:	New Course Materials Update for Program Review. This course is being assessed Spring 2021. This revision is not being prompted by assessments.
Author:	No value

Faculty Minimum Qualifications

Master Discipline Preferred:	• Computer Science
Alternate Master Discipline Preferred:	No value
Bachelors or Associates Discipline Preferred:	• Computer Information Systems (Computer network installation, microcomputer technology, computer applications) • Multimedia
Additional Bachelors or Associates Discipline Preferred:	No value

Course Development Options

Basic Skills Status (CB08)	Course Special Class Status (CB13)	Grade Options

Course is not a basic skills course.

Course is not a special class.

- Letter Grade Methods
- Pass/No Pass

☐ Allow Students to Gain Credit by Exam/Challenge

Allowed Number of Retakes

0

Course Prior To College Level (CB21)

Not applicable.

Rationale For Credit By Exam/Challenge

No value

Retake Policy Description

Type:|Non-Repeatable Credit

☑ Allow Students To Audit Course

Course Support Course Status (CB26)

Course is not a support course

Associated Programs

☑ Course is part of a program (CB24)

Associated Program	Award Type	Active
CC Web Professional	Certificate of Achievement	Summer 2018
CC Web Professional	A.S. Degree Major	Summer 2018
Web Professional Associate of Science (In Development)	A.S. Degree Major	Fall 2022
Web Professional Certificate of Achievement (In Development)	Certificate of Achievement	Fall 2022

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

Y

Transferability

Transferable to CSU only

Transferability Status

Approved

Units and Hours

Summary

Minimum Credit Units (CB07) 3

Maximum Credit Units (CB06) 3

Total Course In-Class (Contact) Hours	90
Total Course Out-of-Class Hours	72
Total Student Learning Hours	162
Faculty Load	0

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Non-Credit Characteristic

No Value

Course Classification Status (CB11)

Credit Course.

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

☐ Variable Credit Course

Weekly Student Hours

	In Class	Out of Classs
Lecture Hours	2	4
Laboratory Hours	3	0
Activity Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	54
Course In-Class (Contact) Hours	
Lecture	36
Laboratory	54
Activity	0
Total	90
Course Out-of-Class Hours	
Lecture	72
Laboratory	0
Activity	0
Total	72

Time Commitment Notes for Students

No value

Faculty Load

Extra Duties: 0

Faculty Load: 0

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

Pre-requisites, Co-requisites, Anti-requisites and Advisories

Advisory

MATHC050 - Elementary Algebra

In DMA C211, students are expected to have an understanding of computations, algebraic methods, polynomials, and exponents in order to calculative functions in Javascript. MATH C050 provides students with an introduction to each of these concepts.

AND

Advisory

DMAC111 - Fundamentals of Web Development

In DMA C211, students are expected to build upon their understanding of HTML nesting hierarchy in order to understand the document object model (DOM). They also must be proficient in HTML in order to apply Javascripts to HTML tags. A breadth of HTML tags and CSS selector types and properties are taught in DMA C111 that provide such a foundation.

Entrance Skills

Entrance Skills	Description
No value	No value

Limitations on Enrollment

Limitations on Enrollment	Description
No value	No value

Specifications

Methods of Instruction

Methods of Instruction	Audiovisual
Rationale	**Web-based video instruction.** Example: Students watch a LinkedIn Learning video on Javascript objects and follow along with

	provided practice files.
Methods of Instruction	Outside reading
Rationale	**Textbook reading** Example: Students read assigned chapter in textbook on how to use jQuery plugins and widgets.
Methods of Instruction	Project-based learning
Rationale	**Class project** Students incrementally build upon a web site throughout the semester.
Methods of Instruction	Instruction through examination or quizzing
Rationale	**Formative quiz assessments** Example: Students complete low-point-value quizzes each week to reinforce concepts and self-correct understanding.
Methods of Instruction	Lecture
Rationale	**Written lectures** Example: Instructor provides written lecture on the Document Object Model.
Methods of Instruction	Peer analysis, critique & feedback
Rationale	**Weekly Discussion** Example: Peers and instructor provide feedback in the discussion forum on weekly enhancements to the class project.

Assignments

A. Textbook readings
Example: Read Chapter 9 Manipulating Strings
B. HTML/Javascript assignments
Example: Write a function, capitalize(), that will accept a string parameter and capitalize any word sent to it. It should make the first letter capital and the remaining letters lowercase. Test it, and once you are certain it is error-free, add it to myLib.js along with appropriate comments.

Methods of Evaluation	Rationale
Homework	**HTML/Javascript assignments** Example: Students create a web page and write a script to validate a form.
Participation	**Discussion assignments** Example: Students provide feedback to each other about weekly script assignments.
Project	**Class Project** Example: Students extend their site's interactivity through various JavaScripts.
Distance Education Description: how outcomes are evaluated	Students complete assignments and projects in open source software, and they submit assignments and projects as attachments in Canvas discussion forums where the instructor and peers provide feedback. The assignments are one week in duration, and the projects are two weeks in duration. Instructor formative feedback is provided in the discussions to allow for

refinement of the final artifact. A component of evaluation is weekly participation in the discussions. Rubrics are provided for all assignments and projects. A separate rubric is also created for SLO assessment. The activities of grading and assessing are distinct. The evaluation criteria and rigor is identical, regardless of delivery mode.

Equipment

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
Murach, M.	Murach's JavaScript and jQuery (4th Edition)	Mike Murach & Associates	2020	978-1943872626

Other Instructional Materials

No Value

Materials Fee

No

Learning Outcomes and Objectives

Course Objectives

No value

CSLOs

Utilize the Document Object Model and manipulate object properties. Expected SLO Performance: 0.75

Business Information Technolog Web Professional Certificate of Achievement	1. Identify concepts of Internet technology, networking, databases, and electronic communications. Assessment:This will be assessed with an exam.

Create interactive web content using programming concepts such as variables, expressions, operators, functions, events, arrays, decision statements, and repetition statements. Expected SLO Performance: 0.75

Business Information Technolog Web Professional Certificate of Achievement	3. Use valid markup, cascading style sheets, semantic encoding, accessibility compliance, and error-free scripting in the creation of Web content. Assessment:This will be assessed and scored with an exam.

Write scripts that manipulate form data. Expected SLO Performance: 0.75

Business Information Technolog Web Professional Certificate of Achievement	3. Use valid markup, cascading style sheets, semantic encoding, accessibility compliance, and error-free scripting in the creation of Web content. Assessment:This will be assessed and scored with an exam.

Create, read, and delete cookies.

Expected SLO Performance: 0.75

Business Information Technolog Web Professional Certificate of Achievement	3. Use valid markup, cascading style sheets, semantic encoding, accessibility compliance, and error-free scripting in the creation of Web content. Assessment:This will be assessed and scored with an exam.

Outline

Course Outline

1. Introduction
    1. The Document Object Model (DOM)
    2. Events
2. Script writing basics
    1. Coding and testing
    2. Attaching scripts in the Hypertext Markup Language (HTML)
    3. Adding comments
    4. Document object properties
3. Script components
    1. Variables
    2. Expressions
    3. Operators
    4. Functions
4. Events and event handlers
    1. onclick
    2. onload
    3. onmouseover and onmouseout
5. Control structures
    1. "if" control structure
    2. "for" loop
    3. "while" loops
6. Arrays
    1. Declaring; populating; and accessing arrays
    2. "for" loops and arrays
    3. Associative arrays
    4. Array methods
    5. Predefined arrays
7. Functions and Libraries
    1. Defining and calling functions
    2. Variable scope
    3. Creating libraries in external files
    4. "setTimeOut()" and "setInterval()"
8. Manipulating Strings
    1. String functions
    2. Substring
    3. Converting string to array
    4. Searching strings
    5. Regular expressions
    6. Metacharacters
9. Math
    1. "math" object
    2. Randomizing
10. Windows
    1. Opening and closing windows
    2. Writing to windows dynamically
11. HTML forms and JavaScript
    1. "form" object
    2. this
    3. Form elements as objects
    4. Pre-filling forms
    5. Form validation

        6. Displaying error messages
    12. jQuery
        1. DOM manipulation
        2. Selectors
        3. Effects
        4. Events
        5. Traversing jQuery
    13. Cookies
        1. Cookies defined
        2. Uses for cookies
        3. Cookies and privacy
        4. Creating cookies
        5. Modifying cookies
        6. Deleting cookies
    14. Dynamic HTML
        1. Dynamic menus
        2. Rollovers
        3. Manipulating page content through the DOM
    15. Debugging scripts
        1. Syntax errors
        2. Runtime errors
        3. Logic errors

Lab Outline

1. Introduction
    1. The Document Object Model (DOM)
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    4. Document object properties
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    1. Variables
    2. Expressions
    3. Operators
    4. Functions
4. Events and event handlers
    1. onclick
    2. onload
    3. onmouseover and onmouseout
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    4. Array methods
    5. Predefined arrays
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    1. Defining and calling functions
    2. Variable scope
    3. Creating libraries in external files
    4. "setTimeOut()" and "setInterval()"
8. Manipulating Strings
    1. String functions
    2. Substring
    3. Converting string to array
    4. Searching strings
    5. Regular expressions
    6. Metacharacters
9. Math

    1. "math" object
    2. Randomizing
10. Windows
    1. Opening and closing windows
    2. Writing to windows dynamically
11. HTML forms and JavaScript
    1. "form" object
    2. this
    3. Form elements as objects
    4. Pre-filling forms
    5. Form validation
    6. Displaying error messages
12. jQuery
    1. DOM manipulation
    2. Selectors
    3. Effects
    4. Events
    5. Traversing jQuery
13. Cookies
    1. Cookies defined
    2. Uses for cookies
    3. Cookies and privacy
    4. Creating cookies
    5. Modifying cookies
    6. Deleting cookies
14. Dynamic HTML
    1. Dynamic menus
    2. Rollovers
    3. Manipulating page content through the DOM
15. Debugging scripts
    1. Syntax errors
    2. Runtime errors
    3. Logic errors

Delivery Methods

Delivery Method: Please list all that apply -Face to face -Online (purely online no face-to-face contact) -Online with some required face-to-face meetings (“Hybrid”) -Online course with on ground testing -iTV – Interactive video = Face to face course with significant required activities in a distance modality -Other

- Face to face
- Online (purely online no face-to-face contact)
- Online with some required face-to-face meetings (“Hybrid”)
- iTV – Interactive video = Face to face course with significant required activities in a distance modality

Rigor Statement: Assignments and evaluations should be of the same rigor as those used in the on-ground course. If they are not the same as those noted in the COR on the Methods of Evaluation and out-of-class assignments pages, indicate what the differences are and why they are being used. For instance, if labs, field trips, or site visits are required in the face to face section of this course, how will these requirements be met with the same rigor in the Distance Education section? Describe the ways in which instructor-student contact and student-student contact will be facilitated in the distance ed environments.

All assignments in distance education course sections of DMA C211 are of the same rigor as those in the on-ground section, except that students in purely online sections will submit all of their assignments virtually. Instructor evaluation of student work in distance education course sections is the same as in the on-ground course section, except that evaluation of student work in the online version is presented virtually. Instead of onsite lectures, hybrid and online courses use a variety of methods including, but not limited to videos, and written lecture notes. Students will interact with the instructor and other students via discussion forums or similar methods.

Good practice requires both asynchronous and synchronous contact for effective contact. List the methods expected of all instructors teaching the course. -Learning Management System -Discussion Forums -Message -Other Contact -Chat/Instant Messaging -E-mail -

Face-to-face meeting(s) -Newsgroup/Discussion Board -Proctored Exam -Telephone -iTV - Interactive Video -Other

- Discussion Forums
- Message
- Chat/Instant Messaging
- E-mail

Software and Equipment: What additional software or hardware, if any, is required for this course purely because of its delivery mode? How is technical support to be provided?

Software used in this course is open source. Technical support will be provided by the instructor. A laptop or desktop computer with Windows or Mac OS is sufficient hardware.

Accessibility: Section 508 of the Rehabilitation Act requires access to the Federal government's electronic and information technology. The law covers all types of electronic and information technology in the Federal sector and is not limited to assistive technologies used by people with disabilities. It applies to all Federal agencies when they develop, procure, maintain, or use such technology. Federal agencies must ensure that this technology is accessible to employees and the public to the extent it does not pose an "undue burden". I am using -iTV—Interactive Video only -Learning management system -Publisher course with learning management system interface.

- Learning management system

Class Size: Good practice is that section size should be no greater in distance ed modes than in regular face-to-face versions of the course. Will the recommended section size be lower than in on-ground sections? If so, explain why.

Class size will not be lower than on-ground sections.

Emergency Distance Education Options The course will operate in remote delivery mode when all or part of the college service area is under an officially declared city, county, state, or federal state of emergency, including (check all that apply) - Online including all labs/activity hours - Hybrid with online lecture and onsite lab/activity hours - Correspondence education in high school and prison facilities - None. This course will be cancelled or paused if it cannot be held fully onsite.

- Online including all labs/activity hours