CIS 54.13 Course Outline as of Spring 2002

CATALOG INFORMATION

Dept and Nbr: CIS 54.13 Title: JAVA SCRIPT
Full Title: Using JavaScript to Design Dynamic Web Pages
Last Reviewed: 1/26/2015

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	3.00	Lab Scheduled	0	17	Lab Scheduled	0
		Contact DHR	3.50		Contact DHR	61.25
		Contact Total	5.50		Contact Total	96.25
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00 Total Student Learning Hours: 166.25

Title 5 Category:	AA Degree Applicable
Grading:	Grade Only
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	CIS 84.24

Catalog Description:
JavaScript is a cross-platform, object-based scripting language. This course provides a solid foundation in JavaScript for beginning programmers and shows students how to create scripts and incorporate them into web pages. Subjects include: displaying the current date and time, create scrolling text banners, perform button rollovers, create a "RoloURL" to access URLs from a list, validate and submit user-entered data from a form, serve dynamic images, customize a site with cookies, and manage multiple frames.

Prerequisites/Corequisites:
Course Completion of CS 50.11B (or CIS 58.51B or CIS 84.42B) and Course Completion of CS 10A (or CS 10 or CIS 10 or CIS 10A or CIS 10 or BDP 10) OR Course Completion of CS 50.11B (or CIS 58.51B or CIS 84.42B) and Course Completion of CS 19.11A (or CIS 16A or CIS 16 or BDP 16 or BDP 57)

Recommended Preparation:
Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:

Schedule of Classes Information:

Description: A cross platform, object based scripting language. Course provides a foundation in JavaScript for beginning programmers. Students create scripts and incorporate them into web pages. Subjects include; display current date, create scrolling text banners, validate and submit user-entered data from a form. (Grade Only)
Prerequisites/Corequisites: Course Completion of CS 50.11B (or CIS 58.51B or CIS 84.42B) and Course Completion of CS 10A (or CS 10 or CIS 10 or CIS 10A or CIS 10 or BDP 10) OR Course Completion of CS 50.11B (or CIS 58.51B or CIS 84.42B) and Course Completion of CS 19.11A (or CIS 16A or CIS 16 or BDP 16 or BDP 57)
Recommended: Eligibility for ENGL 100 or ESL 100
Limits on Enrollment:
Transfer Credit: CSU;
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**			Effective:	Inactive:
CSU GE:	**Transfer Area**			Effective:	Inactive:
IGETC:	**Transfer Area**			Effective:	Inactive:
CSU Transfer:	Transferable	Effective:	Fall 1998	Inactive:	Fall 2019
UC Transfer:		Effective:		Inactive:	

CID:

Certificate/Major Applicable:
Certificate Applicable Course

COURSE CONTENT

Outcomes and Objectives:
Students will:
1. Analyze existing websites which use JavaScripts, download 3-4 of those scripts and customize them to meet the needs of their websites.
2. Create JavaScripts which perform the following functions:
   a. display the current date and time
   b. create scrolling text banners
   c. perform button rollovers
   d. create a "RoloURL" to access URLs from a list
   e. validate and submit user-entered data from a form
   f. serve dynamic images
   g. customize a site with cookies
   h. manage multiple frames.
3. Critique their own web site and determine 4 elements that could be improved using a JavaScript script.
4. Demonstrate JavaScript scripting skills by creating a working web site that contains 5 of the following features, all originating from JavaScript scripts:
   a. Frames
   b. Forms

   c. Content tailored for two browsers
   d. Image billboard or rollover
   e. Site customized with cookies
   f. Content created on-the-fly

Topics and Scope:

1. Introduction to JavaScript
   a. SCRIPT tag
   b. Hiding JavaScript
   c. Events and Event Handlers
   d. Objects, properties and methods
   e. Writing content to a page
   f. The if statement
   g. The JavaScript tree
2. Controlling Windows
   a. Changing a windows location and history
   b. Launching new windows
   c. Creating a remote control
   d. Writing functions
3. Controlling Frames
   a. Targeting frames with JavaScript
   b. Changing the opener window
   c. Avoiding frames within frames
   d. Changing several frames with one link
   e. Rotating pages
4. Controlling forms through JavaScript
   a. The "this" keyword
   b. Creating documents and content from form
   c. Validating forms before they are submitted
   d. Working with Boolean operators
5. Arrays
   a. The array concept
   b. Using arrays to create randomly generated context
   c. Using associative arrays to display formatted dates
   d. Creating a navigational select menu by relating arrays
6. Controlling Content for various browsers
   a. The "navigator" object
   b. Identifying browsers
   c. Tailoring content for browsers
   d. Writing content to a page
   e. Checking for plug ins
7. Dynamic Images
   a. The "image" object
   b. Image rollovers
   c. Multiple rollovers
   d. Image billboard
8. Customizing a site with Cookies
   a. What is a cookie
   b. Saving a cookie
   c. Retrieving a cookie
   d. Deleting a cookie

e. Welcoming new visitors
f. Forms that remember
g. Customizing your site

9. Dynamic HTML
   a. Dynamic HTML and style sheets
   b. Style sheets in depth
   c. Data binding
   d. Absolute positioning
   e. Creating content on the fly
   f. Collapsing and expanding menus
   g. Moving objects around the page
10. Layer Basics
   a. Review of HTML code for creation and control of layers
11. Dyamic HTML Advanced Concepts
   a. Incorporating Dynamic HTML
   b. The scrolling background
   c. The bouncing logo
   d. Displaying the questions and answers
   e. Playing sound and music on cue
12. Advanced JavaScript Concepts
   a. Create user-defined objects
   b. The object constructor
   c. Create a multiple choice test
   d. Create a Web tour
   e. Create relational menus
13. Presentation of Web Site with JavaScripts

Assignment:

Students will:
1. Create 6-8 original JavaScripts which are incorporated into a web site.
2. Download 3-4 existing JavaScripts and customize them to meet the needs of their web site.
3. Use the web to locate 3-5 JavaScript on-line resources, these links will be submitted to a class resource page.
4. Test their JavaScript on both the Mac and PC platforms and at least 5 web browsers (including older versions of the current browsers).
5. Analyze 3 existing web sites and determine if the JavaScript enhances or detracts from the site's usability.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments are more appropriate for this course.	Writing 0 - 0%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework problems, Exams, WEB BASED PROJECTS	Problem solving 25 - 60%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Performance exams, Create web pages and scripts	Skill Demonstrations 20 - 50%

Exams: All forms of formal testing, other than skill performance exams.

Multiple choice, True/false, Matching items, Completion, SHORT ANSWER	Exams 20 - 25%

Other: Includes any assessment tools that do not logically fit into the above categories.

None	Other Category 0 - 0%

Representative Textbooks and Materials:
"JavaScript: The Definitive Guide", 3rd edition David Flanagan O'Reilly and Associates, 2000