

Course Outline

COURSE: DM 85 **DIVISION:** 50 **ALSO LISTED AS:** CSIS 85

TERM EFFECTIVE: Fall 2017 **CURRICULUM APPROVAL DATE:** 11/28/2016

SHORT TITLE: WEB DEV AND DESIGN

LONG TITLE: Web Development and Design

| <u>Units</u> | <u>Number of Weeks</u> | <u>Type</u> | <u>Contact Hours/Week</u> | <u>Total Contact Hours</u> |
|--------------|------------------------|-------------|---------------------------|----------------------------|
| 3 | 18 | Lecture: | 3 | 54 |
| | | Lab: | 0 | 0 |
| | | Other: | 0 | 0 |
| | | Total: | 3 | 54 |

COURSE DESCRIPTION:

Basic and intermediate principles of developing and designing web pages using html editor, content management systems, and/or CSS. Emphasis will be on concept development, interface and navigation design, layout principles and the use of a html editor and CSS to execute, develop and maintain professional Web sites. Topics will include enhanced text formatting, styles and forms. This course also includes the integration of multimedia components such as graphics, sound, animation and video. This course is also listed as CSIS 85. This course has the option of a letter grade or pass/no pass. **ADVISORY:** CSIS 6 or knowledge of HTML/CSS.

PREREQUISITES:

COREQUISITES:

CREDIT STATUS: D - Credit - Degree 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. Develop and design high-level web pages, using a html editor or content management systems, programming in HTML and CSS, utilizing good design principles and applying various techniques; working individually and in groups. PLO: 1 and ILO: 2,3,7,1

Measure of assessment: homework, projects, lab exercises

Year assessed, or planned year of assessment: 2017

Semester: Spring

2. Design and construct web pages/sites using universal design principles in accordance with section 508 and other applicable federal and state laws. PLO: 1 and ILO: 2,3,4,1,7

Measure of assessment: homework, projects, lab exercises

Year assessed, or planned year of assessment: 2017

Semester: Spring

3. Design a functional website that contains at least four pages that demonstrate the use of tables, lists, graphics, rollovers, and links. PLO:1 and ILO: 2,3,7

Measure of assessment: homework, final project, lab exercises

Year assessed, or planned year of assessment: 2017

Semester: Spring

4. Publish a well developed and designed website to a remote host to provide users with a quality experience. PLO: 1 and ILO: 2,3,4,1,7

Measure of assessment: homework, final project, lab exercises

Year assessed, or planned year of assessment: 2017

Semester: Spring

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

Curriculum Approval Date: 11/28/2016

(8 Hours) Content: Overview and history of the web. Review of HTML/CSS and web browsers. Designing web pages for accessibility and easy use. Basics of web pages. Accessing web sites and determining the quality of their design.

Student Performance Objectives: Discuss the various tools used in website construction. Discuss the history of the web. Demonstrate the basics of HTML/CSS. Explain the basics of CSS. Demonstrate how to create external/internal style sheets. Demonstrate knowledge of publishing a site.

(8 hours) Content: Research and Process. Strategic planning; defining purpose, goals, target audience, tactics, and success indicators. Design thinking; inspiration, ideation and implementation. Defining scope. Developing content strategy. Using analytics as a tool for decision making. Assembling web development team. Creating implementation team. Choosing a project management method. Assessing sites.

Student Performance Objectives: Articulate key message. Develop personas, content structure, and voice tone and editorial guidance. Conduct surveys and interviews. Use focus groups and field studies to develop content and solve problems. Conduct A/B testing. Develop a plan for methods of assessment.

(4 hours) Content: Information Architecture. Organizing site content into site taxonomies and hierarchy. Creating controlled vocabularies for major categories of content. Communicating conceptual overviews and overall content and site organization to team/clients. Setting standards and specifications for the handling of content. Designing and implementing search engine optimization standards and strategies.

Student Performance Objectives: Identify major content elements. Choose a site structure (hierarchy). Discuss the purpose of a content outline; relations and priorities.

(8 hours) Content: Site Structure. Site defining, file organization and naming conventions. Using HTML, semantic markup. Basics of content management systems. Structuring the document. Establishing a work flow. Building a solid structure. Understanding search.

Student Performance Objectives: Define a site; add folders and files. Demonstrate how to use a content management system to construct simple web pages. Demonstrate workflow. Apply universal design principles to site with learn-ability, ease of orientation, efficiency, accessibility, and error free. Apply user centered design present. Create a site with appropriate keywords and key phrases.

(8 hours) Content: Page Structure. Discussing responsive design. Pairing responsive design and mobile first design. Structuring a page using CSS; cascade hierarchy, media style sheets and responsive CSS styling.

Optimizing a page for fast delivery. Designing around the fold. Using ID and class selectors. Discussing interface design principles and efficient site navigation. Designing the mobile interface design. Interactive scripting.

Student Performance Objectives: Create a properly structured HTML document conveying meaning and structure. Demonstrate how to set-up an external style sheet and apply its use in multiple web pages. Demonstrate cascade hierarchy. Discuss and demonstrate how to use media queries. Discuss when to use an ID and when to use a class. Demonstrate how to use internal CSS, types and uses of links. Utilize e-mail links. Utilize named anchors and image maps. Create site navigation. Discuss proper HTML structure.

(4 hours) Content: Tables and forms. Using tables for data; structure, style, design. Using images and page layout with tables. Using forms and collecting the data. Designing forms for easy use. Setting up text, text area and password input. Setting up radio and check-boxes. Setting up selector lists.

Student Performance Objectives: Create an example of a purposeful well designed table. Provide interactive components; buttons, menus, inputs. Examine form use on the web and analyze it for good and bad design. Set-up a form with text input, radio and check-boxes.

(6 hours) Content: Images. Understanding image file formats. Developing web imaging strategies. Using web images. Providing alternatives for images. Optimizing images for screen.

Student Performance Objectives: Demonstrate basic multimedia production techniques such as graphics conversions to GIF, JPEG, and PNG, animation and sound files. Utilize image maps. Discuss and demonstrate new uses of images and background. Review various websites and critique their design technique.

(6 Hours) Content: Typography on the web. Defining the characteristics of web typography. Discussing the elements of typographic design. Choosing typefaces. Specifying operating system typefaces. Using web based fonts.

Student Performance Objectives: Describe the fundamentals of web typography. Explain when to use HTML text and when to make text part of an image. Demonstrate how to style pages using CSS font properties.

METHODS OF INSTRUCTION:

Lecture/Demonstration/Guided Practice

METHODS OF EVALUATION:

Writing assignments

Percent of total grade: 10.00 %

Written Homework. If this is a degree applicable course, but substantial writing assignments are not appropriate, indicate reason: Course primarily involves skill demonstration or problem solving

Problem-solving assignments

Percent of total grade: 40.00 %

Homework Problems Quizzes

Skill demonstrations

Percent of total grade: 40.00 %

Performance Exams

Objective examinations

Percent of total grade: 10.00 %

Multiple Choice, True/False, Matching Item, Completion

OUT OF CLASS ASSIGNMENTS:

Required Outside Hours: 16

Assignment Description: Read appropriate textbook chapter(s). Use the web to look up standards for HTML versions. Take a quiz on the history of the web, basics of a web page, definitions associated with HTML and CSS.

Required Outside Hours: 16

Assignment Description: Read appropriate textbook chapter(s). Compare various web sites to determine what makes a site user-friendly and easy to navigate. Look up websites, determine the quality of the design and complete written evaluations. Create a project management plan.

Required Outside Hours: 8

Assignment Description: Read appropriate textbook chapter(s). Create an inventory of pages; properties and purpose. Build a controlled vocabulary document. Develop wire frames.

Required Outside Hours: 16

Assignment Description: Read appropriate textbook chapter(s). Conduct research and create a site map to determine the structure. Develop simple web pages using content management systems. Apply appropriate keywords and key phrases to a webpage.

Required Outside Hours: 16

Assignment Description: Read appropriate textbook chapter(s). Create an HTML document conveying meaning and structure. Expand the use of links for files, e-mail and image maps. Use the HTML source window and editors to modify code. Use CSS to modify individual units of a webpage. Use CSS to modify HTML, tags and groups of tags. Set-up an external style sheet that can be used in multiple web pages.

Required Outside Hours: 8

Assignment Description: Read appropriate textbook chapter(s). Set-up a page using simple tables. Add modification of tables using borders, colors and images. Look at form use on the web for good and bad designs. Set-up text input such as text, text area and passwords. Design a web page using multiple radio and checkbox sets. Set-up a select list.

Required Outside Hours: 12

Assignment Description: Read appropriate textbook chapter(s). Insert images using alt tags in a website. Add formatting and positioning of images.

Required Outside Hours: 12

Assignment Description: Read appropriate textbook chapter(s). Research fonts. Develop font palette for web site style guide.

REPRESENTATIVE TEXTBOOKS:

Required Representative Textbooks

Patrick J. Lynch and Sarah Horton. Web Style Guide 4th Edition. New Haven, CT: Yale University Press, 2016.

ISBN: 9780300211658

Reading Level of Text, Grade: 12 Verified by: MS Word

Recommended Other Texts and Materials

HTML and CSS: Design and Build Websites by Jon Duckett; Publisher: John Wiley & Sons, Inc.; Indianapolis, IN

ARTICULATION and CERTIFICATE INFORMATION

Associate Degree:

GAV C1, effective 200630

CSU GE:

IGETC:

CSU TRANSFER:

Transferable CSU, effective 200630

UC TRANSFER:

Not Transferable

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: DM
CSU Crosswalk Course Number: 85
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: CCC000536715
Sports/Physical Education Course: N
Taxonomy of Program: 061430