GROSSMONT COLLEGE

OFFICIAL COURSE OUTLINE

Curriculum Committee Approval: 04/20/2021

GCCCD Governing Board Approval: 05/18/2021

COMPUTER SCIENCE INFORMATION SYSTEMS 133 – INTERMEDIATE WEB DEVELOPMENT

1. Course Number Course Title Semester Units

CSIS 133 Intermediate Web Development 3

Semester Hours

2 hours lecture 32-36 hours 64-72 outside of class hours 3 hours laboratory 48-54 hours

144-162 total hours

1. Prerequisites

None

Corequisite

None

Recommended Preparation

A “C” grade or higher or “Pass” in CSIS 132 or equivalent.

1. Catalog Description

This course builds on the skills introduced in Introduction to Web Development with hands-on projects that reinforce and further develop HTML5 and CSS3 expertise. Mobile development is addressed in detail. Also covered are content management systems (CMS), Search Engine Optimization (SEO), and usability issues.

1. Course Objectives

The student will:

a. Demonstrate best practices in HTML structure by properly using HTML5 semantic elements and other structural elements (div, span, head elements, block elements) and explain how these support search engine optimization, accessibility, and responsive design.

b. Implement Cascading Style Sheets (CSS) in an efficient, organized manner to control presentation, including formatting and layout for desktop, tablets, mobile devices, and print.

c. Plan and design a successful web site using project planning documents that describe content, audience, web site structure, and navigation scheme.

d. Compare content management systems, explain their advantages and disadvantages, and use one to create a small web site.

e. Describe and apply principles of usable and accessible design.

f. Appraise and utilize both pure markup language code as well as current industry-standard WYSIWYG web authoring tools.

g. Discover how to find answers to challenges in the future due to changing technology.

1. Instructional Facilities
   1. Access to the internet.
   2. Appropriate software.
2. Special Materials Required of Student

Electronic storage media.

1. Course Content
2. Elements of web page design.
   1. Choosing a topic.
   2. Targeting an audience.
   3. Analyzing web sites.
   4. Design for the intended audience.
   5. HTML, including the latest version.
   6. Design and build for a variety of screen sizes and devices, such as smart phones, tablets, laptops and desktops.
3. Web publishing tools and techniques.
   1. Graphic software.
   2. Web publishing software, to include WYSIWYG, text editors and Content Management Systems, such as WordPress.
   3. FTP tools.
   4. Creating a web site.
   5. Absolute and relative links.
   6. Integration of images.
   7. Tables.
   8. Cascading Style Sheets (CSS).
   9. Meta Tags.
   10. Integration of multimedia content, such as audio and video files.
   11. Responsive web creation for mobile devices and tablets
   12. JQuery
   13. Utilization of web fonts
4. Managing and publishing web sites.
   1. Uploading, Validating and Testing pages.
   2. Optimizing a site for and submitting a site to search engines.
   3. Advertising web sites.
5. Usability 1: guiding principles
   1. “Don’t make me think” (Krug)
   2. How we REALLY use the web
   3. Designing pages for scanning
   4. Designing simple choices
   5. Writing for the web
6. Search Engines
   1. Search Engine Optimization
   2. Adding a site search
   3. Controlling which pages are indexed & visited (robots.txt, meta tags).
7. Method of Instruction

a. Hands-on computer exercises.

b. Projects and scenario-based lab activities: To include multiple hands-on HTML, CSS and CMS activities applied from the textbook and other sources, such as chapter-by-chapter projects.

c. Objective examinations and quizzes including a final examination

d. Practical application-based examinations and written quizzes that measure students’ ability to utilize and implement HTML, CSS, CMS and other Web Development software as well as analyzing a scenario and choosing the best among alternatives and options.

9. Methods of Evaluating Student Performance

a. Examinations and quizzes including a written or objective final examination.

b. Skills demonstration.

c. Hands-on lab assignments.

d. Projects: To include multiple hands-on HTML and CSS web development activities applied from the textbook, such as chapter-by-chapter website building projects utilizing HTML to structure the web pages and using CSS to format the elements of the web pages. In addition to the textbook activities, each student will be creating a personal minimum five-page website Final Project which incorporates the components of this class. Student projects will utilize the latest HTML5 and CSS3 techniques, in addition to incorporating lists, images, audio, video, links, forms, some jQuery, and much more. All final projects will be tested utilizing multiple browsers, devices, and screen resolutions.

10. Outside Class Assignments

a. Hands-on exercises.

b. Reading assignments.

c. Respond to other students’ analysis and comments on the class discussion board.

d. Read and analyze instructor assigned case studies; post analysis and comments to the class discussion board.

e. Complete and pass section quizzes.

11. Representative Texts

a. Representative Text(s):

Ruvalcaba, Zak and Boehm, Anne. *Murach’s HTML5 and CSS3, 4th edition*. Fresno, CA: Murach Publishing**,** 2018**.**

1. Supplementary texts and workbooks:

None

Addendum: Student Learning Outcomes

Upon completion of this course, our students will be able to do the following:

* 1. Students will apply design principles to create a Web site that is attractive, organized, user friendly, and quick to download.
  2. Create and manage a Web site that works well with multiple browsers, platforms, monitor sizes, and bandwidths.
  3. Publish a site to a Web server with usability and accessibility and intermediate production i.e. CSS, responsive design, forms, and jQuerybehaviors.