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Date revised: Spring 2010  
Text update: September 25, 2015  
Approval date: March 8, 2010

Art (ART) 1850 Web Site Production (3 Units) CSU  
[formerly Art 34]

Advisory: Successful completion of Art 1800/Computer Science 1800 or Art 1820 with a grade of ‘C’ or better strongly recommended

Total Hours: 32 hours lecture, 64 hours lab (96 hours total)

Type of Class/Course: Degree Credit

Catalog Description: This course covers the development, publishing and maintenance of websites. The student may opt to receive credit in Art 1850 or Computer Science 1850, not both.

Text:

Robbins, Jennifer Niederst and Aaron Gustafson. *Learning Web Design: A Beginner’s Guide to (X)HTML, StyleSheets, and Web Graphics*. 3<sup>rd</sup> edition. O’Reilly, 2007.

Murach, Joel and Ray Harris. *Murach’s PHP and MySQL* 2<sup>nd</sup> ed. Fresno: Mike Murach & Associates, 2014. Print.

Ruvalcaba, Zak and Anne Boehm. *Murach’s HTML5 and CSS3*. 3<sup>rd</sup> ed. Fresno: Mike Murach & Associates, 2015. Print.

Ruvalcaba, Zak and Mike Murach. *Murach’s Javascript and jQuery*. 2<sup>nd</sup> ed: Fresno: Mike Murach & Associates, 2015. Print.

Additional Required Materials: Dream Weaver Multimedia Suite; <http://w3schools.com> Tutorials; HTML and DOM, CSS, JavaScript, XML, PHP, AJAX

Course Objectives:

By the end of the course, a successful student will be able to

1. prepare a website layout and content with a clear functional objective,
2. gather and evaluate the quality and appropriateness of site content,
3. design a website, employing appropriate colors, fonts, graphics and associated media to produce a site which is thematically consistent and achieves its functional objective,
4. create and test code for syntax, logic and execution errors,
5. explain the concept of intellectual property and reasons to avoid plagiarism and copyright infringement,
6. produce, optimize and add media and optimize for web,
7. develop Extensible(X) Hyper Text Markup Language (HTML) to produce site content,
8. identify visual design limitations of programming in HTML and apply Cascading Style Sheets (CSS) to format page content,

9. explain the roles of popular web scripting languages,
10. develop programming code using popular web scripting languages,
11. describe and manipulate elements of the Document Object Model (DOM),
12. explain how Asynchronous JavaScript And Extensible Markup Language (AJAX) technology is used and apply this technology in a website structure,
13. publish website structure and content to the Internet,
14. evaluate visitor experience of a website's design, content organization, ease of navigation and adjust site structure and content to create a positive user reaction,
15. identify post-production issues to create a web presence,
16. identify and use keywords and meta tags, and
17. perform ongoing maintenance and updates of web sites.

Course Scope and Content:

Unit I Fundamentals of Web Design

- A. The Internet and World Wide Web (WWW)
- B. Introduction to HTML
- C. Design vs. Content
- D. Introduction to Site Development
- E. Content vs. Style

Unit II Beyond the Basics

- A. Thematic Consistency
- B. Advanced Style
- C. Adding X to HTML
- D. The Document Object Model (DOM)
- D. Media — Production, Optimization and Implementation

Unit III Learning the Ropes

- A. Legal issues — Property Rights, Licensing, Royalty
- B. Gathering and Creating Content
- C. Production — File Transfer Protocol (FTP) and Server Directory Structure

Unit IV Advanced Topics

- A. Server Operating Systems
- B. Common Scripting Languages
  1. JavaScript
  2. Extensible Markup Language (XML)
  3. Hypertext Preprocessor (PHP)
  4. AJAX (technology not a language)
- C. Data Repositories — Data Base Management Systems (DBMS) and Standard Query Language (SQL) vs. XML

Unit V Post-Production

- A. Search Engine Optimization

- B. Maintenance
- C. User Feedback

Lab content, embedded in the lecture portion of the class, to include:

1. Application of knowledge to create good design of website.
2. Application of knowledge of programming codes and languages to build the websites.
3. Application of knowledge of copyrights to gather and use both graphic and printed materials for content on the website.

Learning Activities Required Outside of Class:

The students in this class will spend a minimum of 6 hours per week outside of regular class time doing the following:

1. Completion of projects
2. Researching and analyzing strengths and weakness of web sites on Internet
3. Reading assigned chapters from textbook
4. Analyzing design in all media
5. Create a journal of websites and alternative media analyses

Methods of Instruction:

1. Lecture
2. Demonstration
3. Use of software to create web site assignments

Methods of Evaluation:

1. Discussion
2. Assigned projects
3. Journal of web sites