

COURSE TITLE: Advanced Web Development

COURSE NUMBER: CP555

CREDIT: 1

GRADE LEVEL: 11, 12

COURSE LENGTH: 1 Semester

COURSE DESCRIPTION:

Students will use elements of advanced Web development, such as CSS, XML, JavaScript, and DHTML to create Web sites. Students will also become fluent in Webmastering strategies and techniques.

PREREQUISITES:

Digital Works, Exploring Web Technologies

INSTRUCTIONAL MATERIALS:

Texts: Macromedia Dreamweaver MX – Hands-On Training, Green, Rudner and Weinman
Macromedia Dreamweaver MX, Bishop, Hunt, and Patel
JavaScript, Complete Concepts and Techniques 2nd edition, Shelly, Cashman, Dorin, Quasney
Dynamic HTML, The Definitive Reference, Goodman

Teacher-designed mini-projects and Web site projects

Lessons and tutorials included with software

Web site tutorials and articles on current resources

SOFTWARE:

Macromedia Dreamweaver, Adobe Photoshop

INSTRUCTIONAL STRATEGIES:

Direct instruction, demonstration, graphic organizers, application exercises, projects, cooperative groups, case studies, guest speakers, videos, Internet

ASSESSMENTS:

Daily work performance, teacher observation, rubric, checklist, classroom discussion, projects, research relevant to topic, application performance, exams

COURSE OBJECTIVES:

Upon successful completion of this course the student should be able to:

1. demonstrate a knowledge of advanced Web scripting concepts to create Web site projects
2. create advanced custom Web site projects that integrate DHTML, CSS, JavaScript, XML
3. identify legal and ethical issues related to Web design
4. be an effective and knowledgeable Webmaster
5. demonstrate an awareness of career opportunities in the field of Web design
6. demonstrate leadership skills

COURSE CONTENT

- I. Advanced HTML and Scripting** Create pages using HTML Forms
Create pages using PDF forms
Use Javascript to send output to a Web page
Use Javascript functions
Use Javascript arrays
Use Javascript conditional statements
Use Javascript loops
Understand and demonstrate browser differences
Debug Code
- II. Cascading Style Sheets** Understand and explain the History and Theory of Cascading Style Sheets
Use Inline and Embedded Styles
Understand and utilize Style Precedence and Inheritance
Use CSS to format paragraphs, lists, and headers
Use CSS to set styles for Links
Use Class and ID to contain CSS Styles
Create styles for Div and Span sections of a page
Use CSS to control page layout
Create layers, control layer visibility and behaviors
- III. XML** Understand the benefits of XML
Write XML Code
Understand the differences between HTML, XML, and XHTML
- IV. DHTML** Define DHTML
Describe what the DOM is.
Understand and use the relationships between HTML, CSS, Javascript, and the DOM to create Dynamic Web pages
- V. Web Mastering** compare and contrast different techniques for managing large websites, assessing the strengths and weaknesses of each
compose a website maintenance plan, which utilizes efficient standards-based methodologies
Rank/prioritize tasks on a typical webmaster's "todo" list and explain why certain tasks would be prioritized over others
Summarize the various industry content management systems and predict the potential success or failure of a particular CMS given a customer case study
Determine the necessary staff to support a given institution's web needs
Demonstrate an understanding of the various staff involved in supporting a Web site list/identify various staff recruitment resources

METHODS OF EVALUATION OF COMPETENCIES:

Evaluation of student mastery of course competencies will be accomplished using the following grading scale:

- A = 90 - 100 %
- B = 80 - 89%
- C = 70 - 79%
- D = 60 - 69%
- F = 0 - 59%