PELLISSIPPI STATE COMMUNITY COLLEGE
MASTER SYLLABUS

WEB DESIGN II – DESIGN FUNDAMENTALS
WEB 2010

Class Hours: 3.0   **Credit Hours: 3.0**

Laboratory Hours: .0   **Revised: Spring 2016**

Catalog Course Description:

This course teaches hands-on skills and knowledge which Web design professionals are expected to understand. Students learn how to apply good design principles as they develop and publish Web sites. General topics include Web site development essentials (such as the development process, customer expectations, and ethical and legal issues in Web development); Web design elements (such the site user's experience, navigation, usability and accessibility, image files, GUI site development software, site publishing and maintenance); Web design principles and aesthetics, and advanced Web technologies (such client-side and server-side technologies and Web databases).

Entry Level Standards:

Students taking this course should be proficient in HTML and basic CSS.

Prerequisites:

WEB 1600

Textbook(s) and Other Course Materials:

Felke-Morris, Terry. (2013). *Web Development and Design Foundations with HTML5, SixthEdition*. Boston: Pearson Education. ISBN-10: 0-13-278339-8

Supplementary Materials (software): The following software is referenced in the course. Purchasing this software is **optional**.
Adobe Dreamweaver CC

I. Week/Unit/Topic Basis:

Week	Topic
1-2	Chapters 1 and 2: Overview of the evolution of the Internet and World Wide Web, Web standards and coordination, the World Wide Web Consortium, networks, the client/server model, Internet protocols, URLs and domain names, markup languages, Internet and Web trends, and XHTML basics including body and text basics, list basics, text formatting, hyperlinks, and validation.
3	Chapter 3: Covering cascading style sheets, using color on Web pages, configuring color with inline CSS and embedded styles, configuring text with CSS, class and id selectors, div and span XHTML elements, using external style sheets, centering XHTML elements with CSS, and CSS validation.

4	Chapter 4: Covering configuring lines and borders, types of graphics, using graphics, XHTML images, and sources and guidelines for graphics.
5	Chapter 5: Covering Web site organization, design principles (repetition, contrast, proximity, and alignment), page layout design techniques, design to provide accessibility, and best practices for navigation, Web page design, text design, and graphic design.
6	Chapter 6: Covering CSS page layout, the box model, CSS positioning properties, two-column page layout, CSS debugging tips, and CSS page layout resources.
7	Chapter 7: Covering CSS pseudo-classes and links, CSS navigation layout using lists, three-column CSS page layout, Css styling for print, and the "Cascade."
8	Chapter 8: Covering using tables on web pages, XHTML table layout, and using CSS to style a table.
9	Chapter 9: Covering XHTML forms, form enhancements, using CSS to style a form, and CGI server-side processing.
10	Chapter 10: Covering Web site development, successful large-scale project development, the development process, Web hosting, and choosing a virtual host.
11	Chapter 11: Covering Web multimedia and interactivity, helper applications and plug-ins, multimedia file types, using sound, podcasting overview, using video, browser compatibility and accessibility, copyright issues and media files, accessibility and multimedia/interactivity, and an overview of Abode Flash, Java, JavaScript, Dynamic HTML (DHTML), and Ajax.
12	Chapter 12: Overview of e-commerce, e-commerce business models, Electronic Data Interchange (EDI), e-commerce statistics, e-commerce issues, e-commerce security, order and payment processing, and storefront solutions.
13	Chapter 13: Covering Web promotion, search engines and search indexes, popular search engines, components of a search engine, designing Web pages for promotion, listing in a search engine and search index, monitoring search engine and search index listings, link popularity, serving dynamic content with inline framdes, and other site promotion activities (affiliate programs, banner ads, banner exchange, reciprocal link agreements, sticky site features, social bookmarking, blogs and RSS feeds, and traditional media ads and existing marketing materials).
14	Chapter 14: Brief overview of JavaScript, the development of JavaScript, popular uses for JavaScript, adding JavaScript to a Web page, the document object model (DOM), events and event handlers, variables, introduction to programming concepts, form handling, accessibility and JavaScript, and JavaScript resources.

15　　　　Final project and exam

II. Course Goals*:

The course will

    A.   Learn to use the Internet and its wide array of useful resources. (I,II,III)

    B.   Use key Internet technologies, such as Web browsers, e-mail, newsgroups, File Transfer Protocol (FTP), and search engines. (II,III,VI)

    C.   Use a variety of Web-based search engines to conduct advanced searches and learn the basics of electronic commerce and security issues. (III,VI)

    D.   Create simple Web pages containing text, graphics, hyperlinks, forms, and frames.(I,II,III)

    E.   Develop Web pages in a text editor and a graphic user interface (GUI) editor. (I,II,III)

    F.   Learn to use Cascading Style Sheets (CSS) and study the basics of Extensible Hypertext Markup Language (XHTML), JavaScript, Dynamic HTML (DHTML), and the Document Object Model (DOM). (I,II,III,IV,V)

    G.   Learn fundamental networking concepts and practices. (V,VI)

    H.   Explain and apply layout elements for a web site. (II,III)

    I.   Explain why navigation is critical and describe how browsers control navigation. (I,III)

    J.   Explain the function of graphics in your web site. (I,II,IV)

    K.   Apply Web design principles. (II,III)

    L.   Add metadata to an HTML document. (I,II,III)

    M.   Edit graphics and screen captures. (IV)

    N.   Create multimedia files using Macromedia Flash. (II,III)

    O.   Explain basic programming language concepts. (III,IV)

    P.   Describe how JavaScript differs from HTML, Java, and Java applets. (I)

    Q.   Describe the difference between HTML and XML. (I)

    R.   Explain the functions of various http servers and discuss the use of ports for web server administration. (V,VI)

    S.   Describe server-side technologies used to create dynamic content for web pages. (V,VI)

    T.   Embed Java applets into web pages. (I,II,IV)

    U.   Describe the anatomy of databases and define query types. (I)

*Roman numerals after course objectives reference goals of the WEB program.

III. Expected Student Learning Outcomes*:

Students will be able to:

1. Describe how the client/server model functions on the Internet. (A)

2. View Web page source code. (B,E)

3. Access and download files using File Transfer Protocol (FTP). (A,B)

4. Describe the purpose of plug-ins and identify plug-ins and viewers, (A,C,E)

5. Identify various file formats, such as MPEG, MP3, MOV, AIFF, AU, WAV, AVI, EPS, TIFF, and RTF. (A,E,H)

6. Incorporate image files as stand-alone graphics into web pages, use the Web-safe color palette, and create backgrounds with color and tiled images. (F)

7. Create hyperlinks for text and images and link to local files, remote sites, and internal anchors within the same file. (F,H)

8. Use color and fonts to convey a company's culture and industry and identify colors in numeric formats. (A)

9. Identify browser components that control navigation. (B)

10. Define color depth and resolution. (B)

11. Choose graphics file formats. (A,B)

12. Define the HTML standard and identify the differences in HTML versions. (E,G)

13. Identify web accessibility issues and solutions. (E,G)

14. Use CSS for page structure. (E, G)

15. Use the META tag and its attributes to influence search engine results.(E,G)

16. Create and link to an external style sheet. (E,G)

17. Identify the main components of Dreamweaver. (B,G)

18. Insert layers, graphics, and text using Dreamweaver. (B,G)

19. Create an image document using Fireworks. (B,G)

20. Add text to an image, crop an image, and manipulate image layers using Fireworks. (B,G)

21. Create, edit, resize, transform shapes, and create motion tweens, shape tweens, and text tweens using Flash (B, G)

22. Save and publish a Flash movie.(B,G)

23. Define and apply web design principles.(B,G)

24. Define programming concepts such as objects, properties, and methods. (B,G)

25. Identify ways in which JavaScript differs from HTML, Java applets, and Java. (B,G)

26. Write basic JavaScript code. (B,G)

27. Identify server-side technologies used to create dynamic content for web pages.(A,B,C,G)

28. Define cookies and describe the ways in which they can be used to enhance a web site.(A,B,C,G)

29. Define plug-in technology.(A,B,C,G)

30. Publish a web site. (A,B,C,G)

* Capital letters after Expected Student Learning Outcomes reference the course goals listed above.

IV. Evaluation:

A. Testing Procedures:

30 percent of grade. Students will be given a series of cumulative theory exams during the semester and a final exam over course content at the end of the semester.
Quizzes, Midterm Exam, and Final Exam

B. Laboratory Expectations:

N/A

C. Field Work:

N/A

D. Other Evaluation Methods:

- Projects/Assignments: 60 percent of grade. The projects and/or assignments will be uploaded to the web server space.
- Online Communication Tools: 10 percent of grade. Students will use email and course discussion board to communicate with the instructor and with each other.

E. Grading Scale:

A	90-100%
B+	85-89%
B	80-84%
C+	75-79%
C	70-74%
D	60-69%
F	0-59%

V. Policies:

A. Attendance Policy:

Pellissippi State expects students to attend all scheduled instructional activities. As a minimum, students in all courses (excluding distance learning courses) must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. Individual departments/programs/disciplines, with the approval of the vice president of Academic Affairs, may have requirements that are more stringent. In very specific

circumstances, an appeal of the policy may be addressed to the head of the department in which the course was taken. If further action is warranted, the appeal may be addressed to the vice president of Academic Affairs.

B. Academic Dishonesty:

Academic misconduct committed either directly or indirectly by an individual or group is subject to disciplinary action. Prohibited activities include but are not limited to the following practices:

- Cheating, including but not limited to unauthorized assistance from material, people, or devices when taking a test, quiz, or examination; writing papers or reports; solving problems; or completing academic assignments.
- Plagiarism, including but not limited to paraphrasing, summarizing, or directly quoting published or unpublished work of another person, including online or computerized services, without proper documentation of the original source.
- Purchasing or otherwise obtaining prewritten essays, research papers, or materials prepared by another person or agency that sells term papers or other academic materials to be presented as one's own work.
- Taking an exam for another student.
- Providing others with information and/or answers regarding exams, quizzes, homework or other classroom assignments unless explicitly authorized by the instructor.
- Any of the above occurring within the Web or distance learning environment.

Please see the Pellissippi State Policies and Procedures Manual, Policy 04:02:00 Academic/Classroom Conduct and Disciplinary Sanctions for the complete policy.

C. Accommodations for disabilities:

Students that need accommodations because of a disability, have emergency medical information to share, or need special arrangements in case the building must be evacuated should inform the instructor immediately, privately after class or in her or his office. Students must present a current accommodation plan from a staff member in Disability Services (DS) in order to receive accommodations in this course. Disability Services may be contacted by sending email to disabilityservices@pstcc.edu, or by visiting Alexander 130. More information is available at http://www.pstcc.edu/sswd/.

D. Other Policies:

Late work: Late work is accepted up to 1 week late for ½ credit. One makeup quiz is allowed (not including the Final Exam).

Students must have a valid PSCC ID to be presented on demand to gain access to PSCC facilities.