

Pellissippi State Community College
Master Syllabus

ADVANCED WEB DESIGN, HTML, & CSS
DWP 2900

Class Hours: 3.0
Laboratory Hours: 0.0

Credit Hours: 3.0
Revised: Spring 2018

Catalog Course Description:

This hands-on course emphasizes development of advanced skills in evolving Web design practices. General topics include UI, navigation, accessibility, mobile first design and site publishing. Advanced HTML and CSS code and techniques are studied with emphasis placed on maximizing site usability.

Prerequisite(s):

DWP 1010 and WEB 1600 and WEB 2150

Textbooks(s) and Other Course Materials:

McFarland, David Sawyer. *CSS: The Missing Manual, 4th Edition*, 2015. O'Reilly Publishers.
ISBN-13: 978-1-491-91805-0.

I. Week/Unit/Topic Basis:

Week Topic

- 1 Introduction to the course, review of HTML5 and CSS3 concepts, Web usability and how we really use the Web.
- 2 Designing for scanning, mindless choices, and the art of not writing for the Web
- 3 Covering external style sheets, configuring color with inline CSS and embedded styles
- 4 Covering configuring graphics, images, and sources and guidelines for graphics
- 5 Covering Web site organization, page layout design techniques, design to provide accessibility, and best practices for navigation (street signs and breadcrumbs).
- 6 Covering CSS positioning properties, CSS debugging tips, and CSS page layout resources
- 7 Midterm Project Presentations.
- 8 Covering CSS pseudo-classes and links, CSS navigation layout, CSS styling for print, and the "Cascade"
- 9 Covering HTML forms, form enhancements, using CSS to style a form, and CGI server-side processing
- 10 Covering Web site development, successful large-scale project development, the development process, Web hosting, and choosing a virtual host
- 11 Overview of e-commerce, e-commerce business models, Electronic Data Interchange (EDI), and storefront solutions

- 12 Covering Web promotion, search engines and search indexes, designing Web pages for promotion
- 13 Putting it all together, designing for usability, accessibility, functionality, and aesthetic appeal
- 14 Peer Evaluations
- 15 Final Exam Period: Capstone Projects

II. Course Goals*:

The course will:

- A. Guide students through an exploration of the myriad factors that affect good Web design and the development process. (I,II,III, IV)
- B. Expand students' understanding of Web design principles. (I,II,III)
- C. Enhance effective use of key Internet technologies such as File Transfer Protocol (FTP) to upload files to a web server from a local computer and update Web sites as needed. (II,III,VI)
- D. Expand students' skill in using advanced HTML5 code and techniques. (I,II,III,IV,V,VI)
- E. Guide students to understand the basics of electronic commerce and security issues. (III,VI)
- F. Enhance students' skill in creating Web page templates and layouts containing text, graphics, hyperlinks, and forms.(I,II,III)
- G. Expand students' skill in using advanced Cascading Style Sheets (CSS) code and techniques. (I,II,III,IV,V,VI)
- H. Expand student understanding of why navigation is critical and how browsers control navigation. (I,III,IV)
- I. Guide students through using a variety of Web-based search engines to conduct advanced searches and through employing strategies for Web promotion. (I,II,III)
- J. Enhance students' knowledge of testing sites in a variety of browsers, at different ranges of connection speeds, and at different screen sizes. (I,II,III,IV,V,VI)
- K. Guide students to design and develop a Website which is accessible, usable, and aesthetically pleasing. (I,II,III,IV,V,VI)

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

III. Expected Student Learning Outcomes*:

Students will:

- 1. Identify and describe the elements that make up a well-designed web page. (A,B,D,G,J,K)
- 2. Locate attractive, well-designed web pages. (A,B,H,I,J,K)
- 3. Define and apply web design principles.(A,B,F,K)
- 4. Apply color, text, and graphics to communicate and guide the reader through a site. (A,B,K)
- 5. Access, download, and/or upload files using File Transfer Protocol (FTP). (A,B,C)
- 6. Explain and apply advanced layout elements for a Web site. (A,B,F,G,H,I,K)
- 7. Define color depth and resolution. (A,B,D)
- 8. Identify and describe web accessibility issues and solutions. (A,B,E,G,H,I,K)
- 9. Demonstrate the use of CSS for page structure. (A,F,G,K)
- 10. Create and link to an external style sheet. (A,F,G,K)
- 11. Demonstrate a variety of ways to influence search engine results.(A,I,K)
- 12. Describe how screen resolution and connection speed affect the user's browsing experience.

- (A,B,D,G,H)
13. Design forms to collect data. (A,B,J)
 14. Build a relative file structure that is portable to different web servers. (A,B,C,D,G,K)
 15. Describe and apply navigation principles. (A,B,H)
 16. Demonstrate how to take a Web page design concept to HTML code. (A,D,G)
 17. Develop and articulate a plan for usability testing and user feedback. (A,B,D,F,G,H,I,K)
 18. Design and develop a Website which is aesthetically pleasing, usable, and which meets accessibility standards. (K)
 19. Publish a web site. (C,I,K)
 20. Develop a plan for ongoing site maintenance and updates. (A,B,C,E,H,I,J,K)

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

IV. Evaluation:

A. Testing Procedures: 30% of grade

Students will complete quizzes based on required readings.

B. Laboratory Expectations:

N/A

C. Field Work:

N/A

D. Other Evaluation Methods: 70% of grade

Students will complete projects and exercises as assigned throughout the semester.

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 [PSCC Disability Services](#).