PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE
MASTER SYLLABUS

CIW SITE DESIGNER CERTIFICATION EXAM
WEB 2292

Class Hours: 1.0  Credit Hours: 1.0
Laboratory Hours: 0.0  Revised: Spring 08

Note: This course is not designed for transfer credit.

Catalog Course Description:

The preparatory course for the CIW Site Designer exam focuses on web-design skills that are not product- or system-specific. This course will use materials that allow students to instantly evaluate the level of IT knowledge achieved and will include practice exams.

Entry Level Standards:

Students taking this course should be proficient in Windows XP

Prerequisites:

WEB 2200

Corequisites:

WEB 2210

Textbook(s) and Other Course Materials:

The cost of certification exam will run approximately $75 for this course. Your instructor will manage the ordering of the exam. Doing this through your instructor will get you the reduced price of $75.

1. CIW Online Assessment account. Your instructor will provide information about this resource in the course content. The online assessment account will let you (a) pre-assess your aptitudes, then tailor your study accordingly (b) prepare for the certification exam (c) instantly evaluate course knowledge and (d) review materials in testing or study environments.

2. CIW Site Designer Certification Exam You can either take the certification exam at Pellissippi State through the CIW Exam Membership Program (half price~$75) or go to a Prometric Testing Center to take the exam (~$125). Your instructor will order your exam if you take the exam at PSTCC.

Information on the CIW Site Designer Certification Exam can be found at http://www.ciwcertified.com/exams/1d0520.asp?comm=home&llm=3#examinfo. This exam (CIW Site Designer 1D0-520) specifically:

- Contains a total of 70 items—all are scored.
- To certify, you must correctly answer correctly at least 49 of the 70 scored questions to achieve a total score of 70% or greater.
- You will have 75 minutes to complete the exam.
- Each item offers four solutions or distracters. Exam candidates must select the one best solution for each item.
- Site Designer skills are not product- or system-specific. They are a combination of minimal technical and non-technical skills and knowledge required for those interested in developing specific Internet skills as a Web site designer. The CIW Site Designer exam tests the following common core of Internet skills:
Explain and implement Web design concepts, including page layout, multimedia, font and color selection, graphic images, audience usability, file hierarchy, and navigation.

Manage Web site development processes.

Develop a Web strategy with goals and tactics to support it, and implement techniques such as mindmapping and site metaphor concepts.

Select and implement basic Web technologies, such as HTML tables and frames, metadata, and Cascading Style Sheets.

Use Web production applications and tools to create and manage pages and sites, create animated GIFs, edit graphic image files, and create multimedia files.

Describe and implement advanced Web technologies, including scripting languages, Dynamic HTML, Extensible Markup Language (XML), server-side technologies, Java applets, and plug-ins.

Describe the functions of Web servers, server administration ports, cookies, databases, and database management systems.

Identify the Internet governing organizations.

Understand how to research Internet standards and register a domain name.

Complete development of a functional Web site.

Compare in-house Web site hosting to hosting with an Internet Service Provider.

Publish sites to the Web using various tools and techniques.

NOTE: It is not necessary to pass the certification exam in order to pass this course. You will receive credit for taking the exam.

Supplementary Materials:

Software
The following software should be installed on your system before beginning this class: Microsoft Windows (XP) and Adobe Acrobat Reader. Download free from http://www.adobe.com/support/downloads/main.html

NOTE: This course is one of a series in the Certified Internet Webmaster (CIW) program offered at Pellissippi State. The CIW certification program validates job-role skills competency for entry-level job seekers and seasoned professionals alike. Candidates can earn CIW certificates in various information technology (IT) job roles, from the foundational CIW Associate certification, continuing to CIW Professional and specialization certifications, and up to advanced-level Master CIW certifications. The course prepares you for the Master CIW Designer certification. For detailed information, see CIW's website at http://www.ciwcertified.com/.

I. Week/Unit/Topic Basis:

This course will begin on a specific date but the student can progress through the course objectives in a timeframe comfortable for him. If the student works hard, he can complete the coursework and certification exam before the formal end of the semester. The instructor will provide benchmarks for the completion of objectives during the semester. All students will complete the certification exam and course requirements by the end of the academic semester.

Phase I:

<table>
<thead>
<tr>
<th>Fall/Spring</th>
<th>Weeks 1-6</th>
<th>Summer</th>
<th>Weeks 1-4</th>
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The instructor will work with you to determine a date when you wish to schedule the CIW exam (during the last weeks of the semester); you must schedule the exam at least three weeks in advance of when you wish to take it. You can take the exam once. If you take the exam in the PSTCC CIW Exam lab, your scores will be recorded by the instructor and factored into your grade for this course; if you choose to take the exam in testing center not associated with PSTCC, you will fax your test scores to the instructor so the score can be factored into your grade.
During Phase I of the semester, you will be studying and working through the companion CIW course (for this exam, the co-requisite course is WEB 2210 CIW Site Designer). During this time, you can be using the CIW Online Assessment account to practice and review the material presented.

### Phase II:

**Fall/Spring**
- Weeks 7-12
- Summer
- Weeks 5-6

**USE the CIW ONLINE ASSESSMENT ACCOUNT:** Student will use the CIW Online Assessment account to review and practice for the CIW Site Designer Certification Exam.

### Phase III:

**Fall/Spring**
- Weeks 13-15
- Summer
- Weeks 7-8

**Take Course Quizzes:** Quizzes have been created in this course made up from the questions similar to those on the CIW exam. The questions for all quizzes are randomly drawn from the test bank. Your performance on these quizzes will indicate to the instructor that you are studying and learning the skills presented from the companion course and the online assessment site and that you are progressing toward successful completion of the certification exam. Quizzes are only relevant when used with CIW student manuals. The materials allow for:
  - Multiple study modes for adaptive learning
  - Personalized study plan and progress reports
  - Study questions and reference tools
  - Simulations of actual testing environments
  - Alignment and references back to CIW instructor-led courseware
  - Drill-down testing on missed questions

**Schedule and complete CIW Site Designer Certification Exam.** You need to schedule the date and time for your exam at least three weeks in advance with your instructor. This is the lead time ProSoft needs for the certification exam to be ordered and scheduled for downloading to the CIW lab at PSTCC. The certification exam can be taken only once in this course.

### II. Course Objectives*

1. **A.** Explain and apply layout elements for a web site. II,III
2. **B.** Explain why navigation is critical and describe how browsers control navigation. I,III
3. **C.** Explain the function of graphics in your web site. I,II,IV
4. **D.** Apply multimedia design principles. II,III
5. **E.** Add meta data to an HTML document. I,II,III
6. **F.** Edit graphics and screen captures. IV
7. **G.** Create multimedia files using Macromedia Flash. II,III
8. **H.** Explain basic programming language concepts. III,IV
9. **I.** Describe how JavaScript differs from HTML, Java, and Java applets. I
10. **J.** Write browser-specific DHTML code. I,II,III,IV
11. **K.** Describe the difference between HTML and XML. I
L. Explain the functions of various http servers and discuss the use of ports for web server administration. V,VI

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

N. Embed Java applets into web pages. I,II,IV

O. Describe the anatomy of databases and define query types. I

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

III. Instructional Processes*:

Students will:

1. Define the relationship between web technology and design concepts. Technological literacy outcome

2. Identify the current direction and application of web technology and design. Technological literacy outcome

3. Identify the differences between web tools and technology. Technological literacy outcome

4. Use HTML skills to create a basic web page. Technological literacy outcome

5. Use basic web design concepts and the site design technologies to determine the overall design and maintenance of a web site and evaluate how well the site communicates to the user its message. Communication outcome

6. Use research activities to promote independent thinking. Active Learning Strategies

7. Use software tools and web development skills to develop web sites that are attractive, functional, and efficient. Technological literacy outcome

*Strategies and outcomes listed after instructional processes reference TBR’s goals for strengthening general education knowledge and skills, connecting coursework to experiences beyond the classroom, and encouraging students to take active and responsible roles in the educational process.

IV. Expectations for Student Performance*:

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

1. Identify common page layout formats. A

2. Define layout elements and their usage. A,J

3. Use color to convey a company’s culture and industry and identify colors in numeric formats. A

4. Choose fonts for a web site. A

5. Explain why navigation is critical. B

6. Identify browser components that control navigation. B

7. Define web site hierarchy and define familiar conventions. B
8. Identify the function of graphics in a website. B
9. Define color depth and resolution. B
10. Choose graphics file formats. A,B
11. Define multimedia web-enabling technologies. A,B
12. Apply multimedia design principles. B
13. Identify the collaborative nature of web development. C
14. Define the importance of design goals. C
15. Define the site metaphor concept. B,C
16. Describe the mindmapping process and use it to structure a website. B,C
17. Determine site implementation factors. B,D
18. Identify site characteristics and their significance and calculate download time. D
19. Identify the origins of HTML. E
20. Define the HTML standard and identify the differences in HTML versions. E,G
21. Explain how proprietary extensions affect web development. E,G
22. Identify web accessibility issues and solutions. E,G
23. Use tables for page structure. E,G
24. Construct a simple page structure using tables. E,G
25. Construct a complex page structure using tables. E,G
26. Identify the uses of frames. E,G
27. Build a simple frameset in columns and rows. E,G
28. Build nested framesets. E,G
29. Combine framesets. E,G
30. Target frameset hyperlinks and manipulate frameset attributes. E,G
31. Add metadata to an HTML document. A,E,G
32. Use the META tag and its attributes to influence search engine results. E,G
33. Identify four ways to apply style variations with Cascading Style Sheets (CSS). E,G
34. Create style sheets in HTML documents to simplify web site design. E,G
35. Create and link to an external style sheet. E,G
36. Locate CSS support resources. F
37. Identify the main components of Microsoft FrontPage.  B,G
38. Create and open a web page with FrontPage. B,G
39. Use FrontPage Views. B,G
40. Perform the following advanced web design activities using FrontPage: add, move, and delete web pages; create and modify tables for page layout; insert images; create page templates; create hyperlinks and image maps; import existing text and HTML files; apply shared borders; develop framesets; create styles; use FrontPage themes; use the FrontPage DHTML Effects toolbar; insert FrontPage Components; create a web form; use FrontPage web reports; create a search form.  B,G
41. Identify the main components of Dreamweaver.  B,G
42. Open and close web projects with Dreamweaver.  B,G
43. Navigate proficiently through the Dreamweaver application.  B,G
44. Insert layers, graphics, and text using Dreamweaver.  B,G
45. Perform the following advanced web design activities using Dreamweaver: develop advanced page layouts; use image elements and navigation features; create image maps; create templates and framesets; use additional features of the Dreamweaver Objects palette; develop rollover images using dreamweaver; create web forms; use Dreamweaver Behaviors Inspector for use interaction; edit HTML directly; insert jump menus; identify the Macromedia Dreamweaver Exchange.  B,G
46. Open and manage HTML files using HomeSite.  B,G
47. Use the HomeSite default template.  B,G
48. Create new files using HomeSite templates.  B,G
49. Use the HomeSite Tag features.  B,G
50. Create an image document using Fireworks.  B,G
51. Add text to an image using Fireworks.  B,G
52. Crop an image using Fireworks.  B,G
53. Manipulate image layers using Fireworks.  B,G
54. Create image frames using Fireworks.  B,G
55. Create a transparent image using Fireworks.  B,G
56. Create image slices using Fireworks.  B,G
57. Identify the elements of a Flash movie.  B,G
58. Identify the Flash toolbar icons and use the Flash drawing tools.  B,G
59. Create, edit, resize, and transform shapes using Flash.  B,G
60. Select and apply colors, gradients, and fills using Flash.  B,G
61. Use the Flash timeline. B,G
62. Create frames and keyframes using Flash. B,G
63. Create layers for object using Flash. B,G
64. Save and publish a Flash movie. B,G
65. Create and edit Flash symbols and buttons. B,G
66. Create Flash motion tweens, shape tweens, and text tweens and apply stops to Flash keyframes. B,G
67. Identify the difference between a Flash movie and a Flash movie clip. B,G
68. Create Flash movie clips with the following features: add sound; resize the Flash movie stage; add Flash movies to HTML pages; test browsers for the Flash plug-in. B,G
69. Use Flash tell targets and action calls. B,G
70. Create mask layers using Flash. B,G
71. Identify programming concepts. B,G
72. Define objects, properties, and methods. B,G
73. Identify ways in which JavaScript differs from HTML, Java applets, and Java. B,G
74. Write basic JavaScript code. B,G
75. Define and use JavaScript functions. B,G
76. Define Dynamic HTML and discuss the technologies it includes. A,B,C,G
78. Write browser-specific DHTML code for use with Microsoft Internet Explorer and Netscape Navigator. A,B,C,G
79. Describe the evolution of XML. A,B,C,G
80. Compare and contrast HTML and XML. A,B,C,G
81. Identify limitations of HTML in relation to XML. A,B,C,G
82. Identify various HTTP servers and explain their functions. A,B,C,G
83. Define the use of ports for web servers and server administration. A,B,C,G
84. Identify server-side technologies used to create dynamic content for web pages. A,B,C,G
85. Utilize a CGI-handling form. A,B,C,G
86. Define cookies and describe the ways in which they can be used to enhance a web site. A,B,C,G
87. Enable your browser to warn you before accepting cookies and delete cookies from your
system. A,B,C,G

88. Define plug-in technology. A,B,C,G

89. Locate and install various plug-in applications. F

90. Define Java and describe its strengths. A,B,C,G

91. Define applets and explain how they function. A,B,C,G

92. Use Java applets to create animation. A,B,C,G

93. Define database. A,B,C,G

94. Identify the anatomy of a database and the general database query types. A,B,C,G

95. Name the Internet governing organizations and explain their roles. C

96. Compare in-house web site hosting to hosting with an Internet Service Provider. C

97. Publish a web site with WS-FTP, Microsoft FrontPage, and Dreamweaver. A,B,C,G

*Letters after performance expectations reference the course objectives listed above.

V. Evaluation:

A. Testing Procedures:

- **50% of grade: Completion of CIW Site Designer Certification Exam.** You do not have to pass the certification exam to pass this course. Your grade for this portion will be determined by the number of points you get correct on the exam. This will be combined with the points you earn on the other two percentage components of the course (Quizzes and Online Communication Tools) shown below.
  
  90 % of total correct = A
  80 % of total correct = B
  70 % of total correct = C
  60 % of total correct = D
  <60 % of total correct = F

- **40% of grade: Quizzes--Online.** Quizzes delivered online in the course delivery software (at present, Desire2Learn) will be used to measure your progress as you work independently with the CIW Online Assessment Account. The questions you are studying and practicing will be included in a question database to be delivered in 25-item quizzes. Questions will be randomly selected from the database for each student for each quiz. Two practice quizzes and one graded quiz will be structured for each course objective. The quizzes are timed and the last one will simulate the way the actual certification exam is administered. You are encouraged to retake the practice exams to familiarize yourself with the questions.

- **10% of grade: Online Communication Tools.** Students will use email and discussion board to communicate with instructor and with each other.

B. Laboratory Expectations:

  N/A

C. Field Work:
D. Other Evaluation Methods:

N/A

E. Grading Scale:

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

**VI. Policies:**

A. Attendance Policy:

Pellissippi State Technical Community College expects students to attend all scheduled instructional activities. As a minimum, students in all courses (excluding videotape and Web courses) must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. (Pellissippi State Catalog)

B. Academic Dishonesty:

You are expected to submit only work that you do yourself. Do not collaborate on work with other students unless you are given a group project. Failure to observe these rules could result in you receiving a failing grade or being dismissed from the class with a grade of F. Plagiarism, cheating, and other forms of academic dishonesty are prohibited. Students guilty of academic misconduct, either directly or indirectly through participation or assistance, are immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions which may be imposed through the regular Pellissippi State procedures as a result of academic misconduct, the instructor has the authority to assign an F or a zero for the exercise or examination or to assign an F in the course. (Pellissippi State Catalog).

C. Accommodations for disabilities:

If you need accommodations because of a disability, if you have emergency medical information to share, or if you need special arrangements in case the building must be evacuated, please inform the instructor immediately. Please see the instructor privately after class or in his/her office. Students must present a current accommodation plan from a staff member in Services for Students with Disabilities (SSWD) in order to receive accommodations in this course. Services for Students with Disabilities may be contacted by going to Goins 127 or 131 or by phone: 694-6751(Voice/TTY) or 539-7153.

D. Other Policies:

Some exams are to be taken at the Testing Center at Pellissippi State. Policy requires that you have a photo ID to take a test in the Testing Center. Children are not allowed in the Testing Center. For location, hours, etc., refer to the Testing Center web site.

If you are taking this course at a distance and cannot come to the Pellissippi State Testing Center, it will be your responsibility to make arrangements for a proctored exam. Contact your instructor to discuss this matter.

Facilities: Students must have a valid Pellissippi ID to be presented on demand to gain access to
Pellissippi facilities.

**Hardware/Software Requirements for this Course**

**IBM-type criteria:**

**Hardware:**

- Intel Pentium 4, Intel Centrino, Intel Xeon, or Intel Core Duo (or compatible) processor.
- Microsoft Windows XP with Service Pack 2 or Windows Vista Home Premium, Business, Ultimate or Enterprise (certified for 32-bit editions)
- 1 GB of RAM
- 5 GB of available hard-disk space
- 1024 x 768 monitor resolution with 16-bit video card
- CD-ROM drive (DVD preferred)
- High-speed Internet connection such as cable modem or DSL recommended, if possible
- Speakers

**Software:**

- Internet Explorer 6.0 (or higher) with Outlook Express
- OPTIONAL: Netscape 7.0 (full installation)

**Macintosh criteria:**

**Hardware:**

- PowerPC G4 or G5 or multicore Intel processor
- Mac OS X v.10.4.8
- 1 GB of RAM
- 7 GB of available hard-disk space
- 1024 x 768 monitor resolution with 16-bit video card
- CD-ROM (DVD preferred)
- High-speed Internet connection such as cable modem or DSL recommended, if possible
- Speakers

**Software:**

- QuickTime 7.0.4 or better