PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE
MASTER SYLLABUS

CIW JAVASCRIPT FUNDAMENTALS CERTIFICATION
WEB 2391

Class Hours: 1.0
Credit Hours: 1.0
Laboratory Hours: 0.0
Revised: Fall 06

Note: This course is not designed for transfer credit.

Catalog Course Description:

The preparatory course for the CIW JavaScript Foundations Certification exam. The focus of the course will be on fundamental JavaScripting. This course uses materials that allow students to instantly evaluate the level of IT knowledge achieved and includes practice exams.

Entry Level Standards:

Students taking this course should be proficient in Windows 98, 2000 or XP

Prerequisites:

WEB 2200

Corequisites:

WEB 2300

Textbook(s) and Other Course Materials:

Test preparation materials (web account) and cost of certification exam will run approximately $150 for this course. Your instructor will help you order exam prep account and will manage the ordering of the exam. Doing this through your instructor will get you the half-price of $150. Otherwise, the cost for the test prep web account and exam would be ~$300.

1. MeasureUp - CIW JavaScript License (30 days) Do not order this early. You will order this with the instructor towards the end of the class.

2. CIW Foundations 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 (~$150). Information on the CIW JavaScript Certification Exam can be found at http://www.ciwcertified.com/exams/1d0435.asp?comm=home&llm=3.

This exam (CIW JavaScript Fundamentals 1D0-435) specifically contains:

- a total of 50 items. To certify, you must correctly answer at least 38 of the 50 scored questions to achieve a total score of 75% 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.
- Candidates taking the JavaScript Fundamentals exam should know how to use the features of the JavaScript language and design
client-side, platform-independent solutions. Candidates should know how to write JavaScript programs, script for the JavaScript object model, control program flow, validate forms, animate images, target frames, and create cookies. Skills measured in the 1D0-435 exam include but are not limited to the following:

- Identify the origins of JavaScript and its key characteristics.
- Call JavaScript functions.
- Write JavaScript programs.
- Control program flow.
- Use the JavaScript object model.
- Use JavaScript language objects.
- Use JavaScript with HTML form controls.
- Validate forms.
- Animate images, target frames, and create and utilize cookies.
- Understand security issues relevant to JavaScript.
- Create custom JavaScript objects.

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:

1. **Software**

   The following software should be installed on your system before beginning this class:
   
   - Microsoft Windows (98/2000/Me or XP)

   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/](http://www.ciwcertified.com/).

### I. Week/Unit/Topic Basis:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Phase I:</td>
<td>Work through co-course WEB 2300.</td>
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<tr>
<td>Fall/Spring</td>
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<tr>
<td>Weeks 1-12</td>
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<td></td>
<td>During Phase I of the semester, you will be studying</td>
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<td></td>
<td>and working through the companion CIW course (for this</td>
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<td></td>
<td>exam, the co-requisite course is WEB 2300 CIW JavaScript).</td>
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| Phase II:                   | Use MeasureUp: Student will use the MeasureUp account   |
| Falls/Spring                | to review and practice for the CIW JavaScript Certification Exam. |
| Weeks 13-14                 | Take Graded Quizzes: Graded quizzes will be emailed to  |
|                             | the instructor through MeasureUp. Further detail will  |
|                             | be given during the course. Performance on these quizzes |
|                             | will indicate to the instructor that you are studying   |
|                             | and learning                                          |
the skills presented from the companion course and that you are progressing
toward successful completion of the certification exam.

Phase III:
Fall/Spring
Week 15
Summer
Week 8

Complete CIW JavaScript Certification Exam. You need to schedule the date
and time for your exam at least three weeks in advance. 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*:

A. Describe the origins of JavaScript and list its key characteristics.
B. Communicate with users using JavaScript.
C. Define and call JavaScript functions.
D. Control program flow.
E. Explain and use the JavaScript object model.
F. Identify and use the JavaScript language objects.
G. Use JavaScript with HTML form controls.
H. Define and use cookies.
I. Discuss security issues relevant to JavaScript.
J. Create custom JavaScript objects.

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

III. Instructional Processes*:

Students will:

1. Understand and facilitate relationships among website users and website developers. Technological literacy outcome
2. Conduct website performance testing and evaluation in relation to interactivity, usability and JavaScript. Technological literacy outcome
3. Use research activities to promote independent thinking. Active Learning Strategies

*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. Describe the origins of JavaScript. (A)
2. List the key JavaScript characteristics. (A)
3. Describe the differences between Java and JavaScript. (A)
4. Discern among JavaScript, JScript, and VBScript. (A)
5. Differentiate among server-side and client-side JavaScript applications. (A)
6. Embed JavaScript into HTML. (A)
7. Use the JavaScript comment tags. (A)
8. Communicate with users through the alert(), prompt() and confirm() methods. (B)
9. Define variables. (B)
10. Define data types. (B)
11. Obtain user input and store it in variables. (B)
12. Report variable text to the client window. (B)
13. Discern between concatenation and addition. (B)
14. Use expressions. (B)
15. Use operators. (B)
16. Define inline scripting. (B)
17. Implement simple events such as onLoad() and onUnload(). (B)
18. Define keywords and reserved words. (B)
19. Define functions. (C)
20. Call functions. (C)
21. Pass arguments to functions. (C)
22. Return values from functions. (C)
23. Define operator precedence. (C)
24. Discern between global and local variables. (C)
25. Employ the conditional operator. (C)
26. Identify user events and event handlers. (C)
27. Use methods as functions. (C)
28. Use conversion methods. (C)
29. Use the if…statement. (D)
30. Use the while…statement. (D)
31. Use the for…statement. (D)
32. Use the break and continue statements. (D)
33. Define the do…while statement. (D)
34. Use the switch…statement. (D)
35. Describe the JavaScript object model. (E)
36. Use the window object. (E)
37. Manipulate properties and methods of the document object. (E)
38. Use the with statement. (E)
39. Deploy the image object. (E)
40. Evaluate and change URL information with the location object. (E)
41. Use the navigator object. (E)
42. Use the String Object to test user input. (F)
43. Identify basic regular expressions and the RegExp object. (F)
44. Deploy the Array object to create more efficient code. (F)
45. Identify uses for the Date and Math objects. (F)
46. Identify and use form controls. (G)
47. Refer to form objects. (G)
48. Define the form object. (G)
49. Use the button object. (G)
50. Use the checkbox object. (G)
51. Evaluate text in the text and textarea subjects. (G)
52. Process radio objects options. (G)
53. Capture choices from a select list. (G)
54. Conduct form validation. (G)
55. Explain cookies. (H)
56. Delete cookies from your disk. (H)
57. Assign a cookie. (H)
58. Test for the presence of a cookie. (H)
59. Clear a cookie. (H)
60. Enable and disable cookies in the browser. (H)
61. Use cookies and passwords to restrict entry to a page. (H)
62. Discuss security issues relevant to JavaScript. (H)
63. Define signed scripts. (H)
64. Target frames with JavaScript. (I)
65. Change two or more frames simultaneously. (I)
66. Use functions and variables within framesets. (I)
67. Use functions and variables with related windows. (I)
68. Target the opener window. (I)
69. Create a custom JavaScript object. (J)
70. Define properties and methods of custom objects. (J)
71. Create new object instances. (J)
72. Create client-side databases using custom objects. (J)
73. Create functions and methods for manipulating client-side databases. (J)

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

V. Evaluation:

A. Testing Procedures:

- **50% of grade: Completion of CIW JavaScriptCertification 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 will be used to measure your progress as you work independently through MeasureUp. You will be required to submit three graded quizzes. Further details will be given during class.

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:

N/A

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 Requirements for This Course

IBM-type criteria:
- Pentium Computer 300 MHz minimum (Pentium III/750 MHz preferred) processing speed
- 128 MB RAM minimum
- 256 KB L2 cache
- Hard disk: 8 GB minimum
- Monitor capable of at least 800 x 600 resolution
- CD-ROM (DVD preferred) Drive 32X
- 56 kbps modem with Internet access (high speed such as cable modem or DSL recommended, if possible)
- Video adapter: at least 4 MB
- Speakers and 16 bit sound card
- Operating System: Windows 98 or higher

Macintosh criteria:
- PowerPC minimum (G3/300 MHz preferred)
- 128 MB RAM
- Monitor capable of at least 800 x 600 resolution
- CD-ROM (DVD preferred)
- 56 kbps modem with Internet access (high speed such as cable modem or DSL recommended, if possible)
- Speakers
- Video adapter: at least 4 MB
- Operating System: Macintosh 8.5.1 or higher (Mac OS 8.6 or higher preferred)