

Pellissippi State Community College
Master Syllabus

INTRODUCTION TO INTERNET SOFTWARE DEVELOPMENT
CSIT 2645

Class Hours: 3.0
Laboratory Hours: 3.0
Credit Hours: 4.0
Revised: Spring 2011

Instructor:
Office:
Phone:
Email:

Catalog Course Description:

The history, growth and use of the internet are explored, and major internet protocols are discussed. Students use CSS, Java Script, Perl, PHP and other techniques to create dynamic Web content.

Entry Level Standards:

The entering student should have a familiarity with the DOS PC operating system and the Windows environment. The entering student should be able to type at least 23 words per minute with 5 or fewer errors.

Prerequisites: One programming course

Corequisites: None

Textbooks and Other Course Material:

Programming the World Wide Web, 6/E, by Robert W. Sebesta, 2008 – Pearson Education, Inc.

WEEK/TOPIC BASIS:

Week	Topic
1	Introduction and History
2	Cascading Style Sheets (CSS)
3	JavaScript
4	Document Object Model (DOM)
5	Exam 1
6	Dynamic Documents with JavaScript
7	XML
8	Introduction to Flash
9	Java Applets
10	Exam 2
11	Introduction to PHP
12	Introduction to Ajax
13	Java Web Software
14	Web Programming Overview
15	Final Exam – Advanced Topics

COURSE GOALS*:

The course will:

- A. Enhance student understanding of the history of computer technology (particularly communication technology) and the role it plays in daily life. (II, III, X)
- B. Provide students with an understanding of the use of Cascading Style Sheets. (II, III)
- C. Introduce students to the JavaScript programming language. (II, III)
- D. Provide students the information they need to understand and create programs using the Document Object Model (DOM), the primary data structures underlying web pages. (I, II, IV, V, VI)
- E. Enhance student ability to create evocative web pages by showing how to create dynamic documents using JavaScript to access and manipulate the DOM. (I, II, IV, VI, VII, VIII, IX, XII)
- F. Introduce Extensible Markup Language (XML) and provide students with an understanding of its use as a markup language creator for creating human-readable, easily sharable data files. (I, II, III, IV, VI, VI, IX)
- G. Provide students with an understanding of the use of Flash to create custom graphics for web pages and other forms of media. (I, II, IV, V, IX, X, XII)
- H. Enhance student understanding of the Java language through their creation of Java applets for use on web pages. (I, II, IV, V, VI, VII, IX, XII).
- I. Introduce students to programming in the PHP language and reveal its ease of use in the web environment. (I, II, IV, V, VI, VII)
- J. Provide students with an understanding of the Ajax technology for building programs requiring asynchronous web communication. (I, II, IV, V, VI, VII)
- K. Enhance student understanding of the Java language by using Java and the Netbeans environment to facilitate web program development. (I, II, IV, V, VI, VII, XI)
- J. Provide students with a current state of the art overview of the field of web development and enough hands-on practice with currently used tools to allow students to begin earning money in the field after successful integration of the course material. (II, III, IV, X, XI, XII)

*Roman numerals after course objectives reference goals of the CSIT program (Career Program Goals and General Education Goals are listed http://www.pstcc.edu/departments/curriculum_and_instruction/syllabi/)

III. **EXPECTED STUDENT LEARNING OUTCOMES*:**

Student will Be able to:

1. Intelligently discuss the history of computer technology with emphasis on communication technologies. (A)
2. Create a web page using only a text editor and browser. (A)
3. Know how to use HTML effectively and how to design a decent web page. (A)
4. Use Cascading Style Sheets (CSS) and define the style of individual HTML tags, sets of

- tags, or groups of pages. (A,B)
5. Create complex programs using the JavaScript language. (A, B, C)
 6. Understand the structure of the Document Object Model (DOM) underlying web pages. (A, D)
 7. Use JavaScript to access the Document Object Model and add or modify objects. (A, B, C, D)
 8. Read and create Extensible Markup Language (XML) files. (A, F)
 9. Create their own markup language using XML. (A, B, C, F)
 10. Create a Flash animation that utilizes both text and graphics. (G)
 11. Include Flash animation in web pages. (A, B, E, G)
 12. Create Java applets and include them in web pages. (A, H)
 13. Understand the basics of the PHP language and its use in creating web applications. (I)
 14. Use PHP to create a simple web program. (A, B, C, D, E, F, I)
 15. Understand the use of Ajax for asynchronous communication. (J)
 16. Create a simple Ajax web program that performs asynchronous communication. (A, B, C, D, E, F, J)
 17. Use Netbeans to effectively create web-based programs. (A, K)
 18. Intelligently discuss the current state of the art in web-based computer programming at a high level and understand in detail the tools used in the class. (A, B, C, D, E, F, G, H, I, J, K, L)

*Capital letters reference the course goals listed above.

IV. **EVALUATION:**

- A. Testing Procedures:** 33% of grade
3 exams @ 100 points each = 300 total points
- B. Laboratory Expectations:** 33% of grade
15 laboratory assignments = 300 total points
- C. Field Work:** 33% of grade
10 assignments for a total of 300 points
- D. Other Evaluation Methods:**
This information, if applicable, will be .
- E. Grading Scale:**

A	> 900
B	800-899
C	700-799
D	600-699
F	< 600

V. **POLICIES:**

A. Attendance Policy:

Pellissippi State Community College expects students to attend all scheduled instructional activities. As a minimum, students in all courses must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. [NOTE: No differentiation is noted for excused/unexcused absences. These will be treated as an absence.]

Maintaining continuous attendance in your classes is very important. If you are considering dropping or withdrawing from a course, please check with the Financial Aid Office before doing so. Dropping or withdrawing from a class can adversely affect your financial aid and/or lottery eligibility.

B. Academic Dishonesty:

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 that 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.

C. Computer Usage Guidelines:

College-owned or –operated computing resources are provided for use by students of Pellissippi State. All students are responsible for the usage of Pellissippi State's computing resources in an effective, efficient, ethical and lawful manner. (*Pellissippi State Online Catalog*)

D. Accommodation 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, 132, 134, 135 or by phone: 694-6429(TTY) or 539-7153 (Voice). More information is available at www.pstcc.edu/departments/swd/.

E. Make-Up Work:

Students are expected to promptly attend all lecture and lab classes as assigned. If a class is missed, student must make up all work and get notes and/or handouts.