

Pellissippi State Community College  
Master Syllabus

**XML**  
**WEB 2350**

Class Hours: 3.0  
Laboratory Hours: 0.0

Credit Hours: 3.0  
Revised: Fall 2016

**Catalog Course Description:**

XML document design teaches students how to create intelligent structured Web documents using the extensible markup language (XML). Students study the functions and relationships between XML and other members of the XML family of technologies, including the extensible hypertext markup Language (XHTML) and extensible stylesheet language (XSL). They create and apply styling to XML documents in a series of hands-on labs that focus on the development of coding conventions and compliance with the rules for well-formed XML. This course provides a balance of training in theory, technology and hands-on development. The skills and concepts taught enable corporations to create consistent structured documents that can be published to a variety of output formats and media. The course covers XML document design as well as the basics of CSS, DHTML and XHTML.

**Prerequisite(s):**

WEB 2010 or CITC 2375

**Textbooks(s) and Other Course Materials:**

1. Carey, *New Perspectives on XML*, 2nd Edition: Comprehensive, Course Technology, 2007. ISBN-10: 141886064.
2. Supplementary Materials (software): System Requirements: You will need a basic text editor, the current version of the Internet Explorer (IE 9 or higher), Netscape, Firefox, or Safari Web browsers, and an XML validator. This book assumes that you will be using the Home Edition of XMLSpy to validate your documents, but you may use another application. Note that XMLSpy requires the Windows operating system (either native or Parallels on a Mac).

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

**Week   Topic**

1	Introduction to XML
2	Creating XML Document
3	Working with Namespaces
4	Validating XML Documents
5	Working with Schema
6-7	Working with Cascading Style Sheets and XML
8	Using XML as a Data Source: Data Binding
9	Working with XSLT and XPath to transform an XML document

- 10 Working with XSLT & XPATH, cont'd
- 11 Working with DHTML
- 12 Working with XHTML
- 13 Working with the Document Object Model (DOM)
- 14 The AJAX Web Application Model
- 15 Final Exam

## II. Course Goals\*:

The course will:

- A. Understand and be able to define XML, CSS, XHTML and DHTML. I,II,III
- B. Use key Internet technologies, such as DHTML and CSS. II,III,VI
- C. Configure software for XML debugging including Xerces parser, Instant Saxon processor, XML Spy 5.0 and others. II,III,IV,VI
- D. Learn to use/study the basics of XML and Extensible Hypertext Markup Language (XHTML). I,II,III
- E. Learn to use/study the basics of Cascading Style Sheets (CSS) and Dynamic HTML (DHTML). I,II,III

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

## III. Expected Student Learning Outcomes\*:

Students will:

- 1. Identify the basic concepts of markup languages. (A)
- 2. List the goals of XML. (A)
- 3. Define XHTML.(A)
- 4. Construct XML documents.(D)
- 5. Identify the differences between tags and elements in XML. (E)
- 6. Create a well-formed XML document. (E)
- 7. Define the Document Type Definitions (DTD). (A)
- 8. Create a DTD. (D)
- 9. Validate an XML document. (D)
- 10. Identify the requirements for a parser. (A)
- 11. Use online parsers. (C)
- 12. Use command-line parsers. (C)
- 13. Define XML namespaces and usage.(A)
- 14. Describe the relationship between XSL and XSLT. (A)
- 15. Define XML formatting requirements. (A)
- 16. Apply CSS to XML. (B)
- 17. Identify the reasons for XHTML's development. (A)
- 18. Use XML tools to clean existing documents. (C)

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

#### **IV. Evaluation:**

##### **A. Testing Procedures: 50% of grade**

Students will be given a series of quizzes and exams over textbook content during the semester. These exams will consist of true/false, multiple choice, and essay questions.

##### **B. Laboratory Expectations:**

N/A

##### **C. Field Work:**

N/A

##### **D. Other Evaluation Methods:**

- **Projects/Assignments: 30% of grade.** Students will be given several lab projects. The projects will be completed in the course of reading and working through the textbook. The files will be sent weekly via the method designated by the instructor.
- **Online Communication Tools: 20% of grade.** Students will use the discussion group facility and email to communicate with 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](#) (<http://www.pstcc.edu/sswd/>) may be contacted via [email](#) or by visiting Alexander 130.