

Foothill College
Computer, Technology & Information Systems Division
COIN78 Introduction to eXtensible Markup Language (XML)
Fall Quarter, 2010

Course Information: COIN78.04W 5 units: meets online in fall 2010
COIN78.02 meets Thursday from 6:00 to 8:00 (hybrid lecture)

Instructors: Robert D. Cormia and Paula Schales

Email: rdcormia@earthlink.net and pschales@gmail.com

Web: <http://fgamedia.org/faculty/rdcormia/COIN78/>

Course description:

This course provides an introduction and overview of XML, including writing well formed and valid XML, the use of DTDs and XML schema for validation, CSS and XSLT for formatting, and advanced topics in XML including XPath, XLink and XPointer, RDF, and Web services, and SOAP. You will submit assignments comprising at least five XML files, and including an external DTD, XML Schema document, CSS and XSL for presentation. Extra Credit assignments for writing RSS and Google XML sitemaps are available.

Course goals and objectives:

- Be able to write well-formed and valid XML documents for publishing on the Web.
- Validate XML files and dataTypes using Document Type Definitions (DTDs) and XML Schema (XSD)
- Apply Cascading Style Sheets (CSS) and the eXtensible Style Language (XSL) to render XML.
- Consider how XML as a meta-language and Web integration platform is affecting computing.
- Apply XML as a markup language in RSS, blogging, and RDF and the Semantic Web.
- Become familiar with Web services and SOAP, and the future of the 'Web as a platform'.
- Write metadata including Google XML sitemaps using XML.
- Understand how HTML and XHTML will intersect XML and the future of Web publishing.

Course requirements:

Students should have a good working knowledge of HTML, an introduction to the use of Cascading Style Sheets (CSS), and a good command of file organization. You should expect to spend roughly 5 to 10 hours or more outside of class working on each of your assignments. There are usually handouts; and you can also view PowerPoint presentations online. The web tutorials are critical to your success in the course. The class moves very quickly, so please stay organized, on track and on task. If you invest a reasonable effort you are guaranteed to succeed in learning to use and understand the fundamentals of XML. Additionally, you will develop skills in data modeling, and developing schema for organizing data.

Hybrid modality:

This course is offered 'hybrid' meaning that it is primarily an online course, but we may have a physical lecture for students to attend where we'll cover the important concepts, show examples, and answer questions that can't be easily or efficiently answered through email. The course materials for both sections are identical and online. Students should plan for ~5 hours of activity and lab time per week.

Textbook and recommended reading:

- **XML: Visual QuickStart Guide, 2nd Edition**, by Kevin Howard Goldberg, Peachpit Press, 2008. ISBN-10: 0-321-55967-3
- [XML.com: The Guide to W3C Schema](#), Eric van der Vlist, O'Reilly & Associates; ISBN: 0-596-00264-5.
- [Teach Yourself XML in 21 Days](#), Devan Shepherd, Sams; ISBN: 0-672-32093-2.
- [XML Pocket Reference](#), Robert Eckstein, O'Reilly & Associates; 1999, ISBN: 1565927095.

Assignments:

Five assignments (and one extra credit assignments) and a final writing assignment are given in this class. Each assignment focuses on a specific aspect of XML, and each is worth 15 points or 15% of your grade. You will submit these files, including an XML file (.xml), a separate DTD file (.dtd) a separate CSS file (.css), a separate XSD file (.xsd) and a separate XSL file (.xsl) and the XML files that link to it. There are a total of 14 files that you will submit. Each of these assignments will have a separate web page describing what is needed, and sample files to help you start. The midterm comprises 25 questions, each worth one point, and the format is freeform answers. There are 5 extra credit points available as well. It is posted online. You will submit this as an electronic document in an RTF or text file format, and paste it into the ETUDES assignment window as well. Please don't forget to do the extra credit questions!

Class and lab participation: If enrolled in the physical / hybrid class, you are expected to attend all lectures (unless we have scheduled TBA). Online students may attend these lectures at anytime.

Course Assignments and Grading:

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| Assignment zero | 5 points | due at the end of week one |
| Assignment one | 15 points | due at the start of week three |
| Assignment two | 15 points | due at start of week five |
| Assignment three | 15 points | due at the start of week seven |
| Assignment four | 15 points | due at the start of week nine |
| Assignment five | 15 points | due at start of week eleven |
| Assignment six | 10 points | can be submitted at any time |
| Writing assignment | 25 points | due in the final week |

90 - 100 points = A, 80 - 90 points = B, 70 - 80 points = C, 60 – 70 points =D, 50 - 60 = F

Each assignment is due at the beginning of a week and late if not received by the end of that week. All assignments are 'in progress' until we get them completely error free (for full credit). You must submit at least 50 points to earn a grade of 'F', otherwise you may be dropped, and given a 'W' (there are no 'automatic F's' in this course). Paste a message for each assignment in ETUDES (assignments 1-5) that you have emailed me the files to work on. Otherwise I cannot score / record your points in ETUDES.

Office hours: Our "virtual" office can be reached by electronic mail, at rdcormia@earthlink.net and pschales@gmail.com. We normally respond to e-mail in 24 hours, Monday through Friday, 48 hours on weekends. Always put COIN78 and a 'meaningful topic' in the subject line (do not 'recycle' subject lines). Office hours on campus immediately precede our 'hybrid' lecture. Please do not send attachments other than .xml, .rtf, .txt, .zip, and image files. Attachments larger than 250 Kbytes may be deleted.