

# Web Application Development II

## Class Schedule

Information Technology & Supply Chain Management  
College of Business and Economics  
Boise State University

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**This is a preliminary syllabus. It may change many times during the semester**

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## Course Description

**ITM 425, Advanced Network Applications Development:** This course will entail an in depth study of XML and associated technologies. Topics will include the history of XML, DTD and XSD, XPath and XSLT, RSS feeds, web services using XML-RPC, AJAX, and development patterns and project structures. The course will include the presentation of a content management system (CMS) based on XML and PHP technologies.

**Prerequisites:** ITM 325

**Meeting times and places:**

- T/Th: 3:15-4:30 PM; B216
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## Learning Objectives

The learning objectives for this course are that by the end of the semester students will:

- Understand the history and importance of XML.
- Be able to develop DTD and XSD documents that will be used to validate XML instances.
- Be able to transform XML instances using XPath and XSLT.
- Be able to implement RSS feeds.
- Be able to implement simple web services using XML-RPC.
- Be able to manipulate XML instances using the SAX, DOM, and SimpleXML functions provided by PHP.

- Be able to develop simple AJAX based JavaScript applications.

Assessment of these learning objectives will be done through exams, homework, project assignments.

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## Expectations for Students

You are a participant in the educational process and will be expected to share in the responsibility for making the class and your individual experience successful. The following expectations are emphasized:

**Be professional:** We will start class on time and end at or before the official ending time. Please do not arrive late, leave and return, or leave early from class. Turn off your cell phone, pager, or other distracting devices. Do not carry on conversations during lectures or student presentations. Do not bring children or visitors without prior permission.

**Be reachable:** Everyone will be expected to check their Boise State email address (e.g., SallyStudent@mail.boisestate.edu) every day. This will be your only email address used for class purposes, however you can make arrangements to forward your mail to other addresses. Blackboard will also be used and you will be expected to maintain your Blackboard email address as the same address as your Boise State address.

**Be responsible:** Attend every class and notify the professor if you will be unavoidably absent. Obtain class notes from another student if you miss class. Complete all assignments on time and allow for the possibility of technology availability problems--no late assignments can be accepted. If you will miss class because of a University-approved absence, turn in your assignment early. No make-up exams will be given.

**Be flexible:** Please understand that our computing and networking environment changes constantly, particularly in the Micron Networking and Telecommunications Teaching Laboratory (B216). We may need to adjust the schedule, the technologies used, and our planned activities at times. In trying to give you a state-of-the-art learning environment, we sometimes encounter inconveniences due to the installation and use of new software.

**Be honest:** High standards of student conduct and academic honesty will be expected. In addition to avoiding conduct prohibited by the Academic Dishonesty section of the BSU Student Handbook, students should make sure to perform assignments without unauthorized assistance and take care to cite references and outside sources as appropriate. In particular, students should be aware that copying ideas or material from the Internet and representing it as their own constitutes plagiarism. **The typical minimum consequence for academic dishonesty will be a failing grade in the course, with additional consequences for severe or repeated cases.** All assigned work must be considered individual assignments unless announced as group assignments, however students are welcome to help each other learn general concepts and technologies (but not specific assignment solutions). If in doubt, please ask.

**Be present for all exams:** Attendance on scheduled exam days is mandatory. I do not give make-up exams.

**Follow lab rules:** General rules for using the Micron lab are posted. It is designed as both a classroom and a lab, but will usually not be used as both at the same time. During classroom sessions the desktop workstations will normally be turned off to reduce noise and distractions. If you bring a laptop to class, you may not use it for web browsing, checking email, etc., but may use it for note taking if this is not in any way distracting to the professor or other class participants. **The default will be no computers in use during lectures.**

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## Grading

Grading will be on a scale of 90-100%: A; 80-89.9%: B; etc. While some adjustments and/or scaling will be done based on the actual number of homework assignments, etc., the approximate breakdown of points is expected to be:

Exam 1	100
Exam 2	100
Projects, homework, and quizzes	200
Comprehensive final exam	100
Total	500

Homework assignments may be graded using a sampling or spot-checking system. A 10% per day penalty is applied to all late submissions.

The Student Code of Conduct, which includes information on academic dishonesty and describes the reporting and the Conduct hearing processes, can be found at: <http://www.boisestate.edu/osrr>.

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## Faculty

Dr. Tim Chenoweth

B213F; 426-2901; [timchenoweth@boisestate.edu](mailto:timchenoweth@boisestate.edu)

Office Hours: TBD

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# Text, Links, and other Online Materials

Online tutorials from <http://www.w3schools.com/> will be used.

Blackboard will be used to an extent yet to be determined. You can access it at <http://blackboard.boisestate.edu>.

Links to IDEs and Utilities: [Exchanger Lite](#), [HTML-Kit](#), [JEdit](#) Here is a link to a very simple program that does [XSLT transformations](#). Exchanger Lite will be installed in the B216 lab.

Link to [Oxygen xml editor](#).

Here is an extensive list of [editors](#).

I would also suggest you use [WinSCP](#).

[PHP web sight](#)

[Course Books](#) (those marked with \* are required texts).

Additional readings and Internet-accessible resources may be introduced over the course of the semester. Depending on the project you work on and the software you use, you may need to (or want to) purchase additional books or other materials.

Color coding:	Quite firmly scheduled. Might be minor changes to documents.	Tentatively scheduled. Documents are reasonably stable. I will announce document changes in class.	Still in development. Documents still subject to change.
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This schedule is updated frequently--please check it often. When there are notes for a class session, they will generally be available on the web and linked from this schedule page at least 24 hours before class. This schedule is listed for the twice per week section--the once per week section will cover two of these days at a time. Green indicates materials that are ready--the remainder of the schedule is under development.

<u>Date</u>	<u>Topic</u>	<u>Due Before Class</u>	<u>In-Class Activity</u>
Tues 1/20	Introduction to the class (itm325 review)		Discuss course. pp slides XML_1
Thurs 1/22	Why's XML a big deal? XML syntax. (itm325 review)	Do all sections of W3C <a href="#">XML tutorial</a> Chapters one and	pp slides XML_1

		Sixteen of <i>Beginning XML</i>	
Tues 1/27	XML Syntax	Chapters two and three of <i>Beginning XML</i>	pp slides XML_2
Thurs 1/29	XML Syntax	Chapters two and three of <i>Beginning XML</i>	pp slides XML_2
Tues 2/3	Styling and Transformation; XPath	Chapters seven and eight of <i>Beginning XML</i> Read <a href="#">XPath tutorial</a> Read <a href="#">XSL</a> and <a href="#">XSLT</a> tutorials	pp slides XML_3
Thurs 2/5	Styling and Transformation; XPath	Chapters seven and eight of <i>Beginning XML</i> Read <a href="#">XPath tutorial</a> Read <a href="#">XSL</a> and <a href="#">XSLT</a> tutorials	pp slides XML_3
Fri 2/6	<b>HW1 due by midnight (HW1 posted on Blackboard).</b>		
Tues 2/10	XSLT	Finish reading chapter eight of <i>Beginning XML</i> Read <a href="#">XPath tutorial</a> Read <a href="#">XSL</a> and <a href="#">XSLT</a> tutorials	pp slides XML_4
Thurs 2/12	DTDs	Chapter four of <i>Beginning XML</i> Read <a href="#">DTD tutorial</a> Good site with <a href="#">DTD examples</a>	pp slides XML_5
Tues 2/17	<b>Exam One. The exam is closed book and closed notes (notes 1-4).</b>		
Thurs 2/19	DTDs	Chapter four of <i>Beginning XML</i> Read <a href="#">DTD tutorial</a> Good site with <a href="#">DTD examples</a>	pp slides XML_5
Mon 2/23	<b>HW2 due by midnight (HW2 posted on Blackboard).</b>		

Tues 2/24	XSD	Chapter five of <i>Beginning XML</i> Read <a href="#">XSD tutorial</a> Another good <a href="#">XSD tutorial</a>	pp slides XML_6
Thurs 2/26	XSD	Chapter five of <i>Beginning XML</i> Read <a href="#">XSD tutorial</a> Another good <a href="#">XSD tutorial</a>	pp slides XML_6
Tues 3/3	CMS PHP example		pp slides CMS 1
Thurs 3/5	CMS PHP example		pp slides CMS 1
Fri 3/6	<b>HW3 due by midnight (HW3 posted on Blackboard).</b>		
Tues 3/10	CMS PHP example		pp slides CMS 1
Thurs 3/12	CMS PHP example		pp slides CMS 1
Fri 3/13	<b>HW4 due by midnight (HW4 posted on Blackboard).</b>		
Tues 3/17	<b>Exam Two (DTD and XSD; Notes 5-7)</b>		
Thurs 3/19	CMS PHP example		pp slides CMS 1
Mon 3/23 to Sun 3/29	<b>Spring Break</b>		
Tues 3/31	CMS PHP example		pp slides CMS 1
Thurs 4/2	CMS PHP example		pp slides CMS 1
Tues 4/7	CMS PHP example		pp slides CMS 1
Thurs 4/9	CMS PHP example		pp slides CMS 1
Fri 4/10	<b><a href="#">First project deliverable</a> (enter/update student and course) due by midnight</b>		
Tues 4/14	AJAX and JavaScript	Read <a href="#">AJAX</a> , <a href="#">Javascript</a> , <a href="#">HTML DOM</a> , and <a href="#">DHTML</a> tutorials  <a href="#">Prototype Download</a> <a href="#">Prototype Documentation</a> <a href="#">Prototype Online Manual</a> <a href="#">Prototype Manual (PDF)</a>	AJAX PP slides

Thurs 4/16	AJAX and JavaScript	<p>Read <a href="#">AJAX</a>, <a href="#">Javascript</a>, <a href="#">HTML DOM</a>, and <a href="#">DHTML</a> tutorials</p> <p><a href="#">Prototype Download</a>  <a href="#">Prototype Documentation</a>  <a href="#">Prototype Online Manual</a>  <a href="#">Prototype Manual (PDF)</a></p>	AJAX PP slides
Fri 4/17	<b><u><a href="#">Second project deliverable (enter/update Grade) due by midnight</a></u></b>		
Tues 4/21	AJAX and JavaScript	<p>Read <a href="#">AJAX</a>, <a href="#">Javascript</a>, <a href="#">HTML DOM</a>, and <a href="#">DHTML</a> tutorials</p> <p><a href="#">Prototype Download</a>  <a href="#">Prototype Documentation</a>  <a href="#">Prototype Online Manual</a>  <a href="#">Prototype Manual (PDF)</a></p>	AJAX PP slides
Thurs 4/23	AJAX and JavaScript	<p>Read <a href="#">AJAX</a>, <a href="#">Javascript</a>, <a href="#">HTML DOM</a>, and <a href="#">DHTML</a> tutorials</p> <p><a href="#">Prototype Download</a>  <a href="#">Prototype Documentation</a>  <a href="#">Prototype Online Manual</a>  <a href="#">Prototype Manual (PDF)</a></p>	AJAX PP slides
Fri 4/24	<b><u><a href="#">Third project deliverable (Reports) due by midnight</a></u></b>		
Tues 4/28	AJAX and JavaScript	<p>Read <a href="#">AJAX</a>, <a href="#">Javascript</a>, <a href="#">HTML DOM</a>, and <a href="#">DHTML</a> tutorials</p> <p><a href="#">Prototype Download</a></p>	Work an <a href="#">AJAX inclass</a>

		<a href="#">Prototype Documentation</a> <a href="#">Prototype Online Manual</a> <a href="#">Prototype Manual (PDF)</a>	
Thurs 4/30	AJAX and JavaScript	Read <a href="#">AJAX</a> , <a href="#">Javascript</a> , <a href="#">HTML DOM</a> , and <a href="#">DHTML</a> tutorials  <a href="#">Prototype Download</a> <a href="#">Prototype Documentation</a> <a href="#">Prototype Online Manual</a> <a href="#">Prototype Manual (PDF)</a>	Work an <a href="#">AJAX inclass</a>
Tues 5/5	AJAX and JavaScript	Read <a href="#">AJAX</a> , <a href="#">Javascript</a> , <a href="#">HTML DOM</a> , and <a href="#">DHTML</a> tutorials  <a href="#">Prototype Download</a> <a href="#">Prototype Documentation</a> <a href="#">Prototype Online Manual</a> <a href="#">Prototype Manual (PDF)</a>	Work an <a href="#">AJAX inclass</a> Work on Project. Work on hw5
Thurs 5/7	AJAX and JavaScript	Read <a href="#">AJAX</a> , <a href="#">Javascript</a> , <a href="#">HTML DOM</a> , and <a href="#">DHTML</a> tutorials  <a href="#">Prototype Download</a> <a href="#">Prototype Documentation</a> <a href="#">Prototype Online Manual</a> <a href="#">Prototype Manual (PDF)</a>	Work an <a href="#">AJAX inclass</a> Work on Project. Work on hw5
Fri 5/8	<a href="#">Completed Project</a> and HW5 due by midnight (Both posted on Blackboard).		

Tuesday, 5/12

Final exam:  
Section 1: 3:30 - 5:30 PM

The final exam is closed-book and comprehensive, but with greater emphasis on material covered since the last exam.