IIST 538-15432: Fundamentals of XML (3) Fall 2010

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Course time: Thursdays 4:15 PM – 7:05 PM

Class location: DR 015

Office location: 141C Draper Hall

Office hours: Thursdays 11:00 AM to 4:00 PM

Or by appointment.

**Course Description**

Extensible Markup Language (XML) provides a standard to support automated processing across platforms and applications. Students will learn practical applications of XML, and will apply the standard to sample texts and objects.

This course will discuss XML as a document, as a data exchange standard, and as a vendor-neutral application platform. Various class projects will apply these standards to sample texts and objects.

**Expected Outcomes**

Students who successfully complete IIST 538 will have gained the following:

* An understanding of what a mark-up language is, what the purpose of an extensible mark-up language is, and specifically the functionality of XML;
* An understanding of the context within which XML is used an applied;
* A working knowledge of devising XML documents, parsing XML documents, and using style sheets to format XML documents.

**REQUIRED Textbook:**

**New Perspectives on XML, Second Edition, Comprehensive**

Carey© 2007, 725 pages

**ISBN-10: 1-4188-6064-6**

**ISBN-13: 978-1-4188-6064-6**

Companion website: [www.course.com/newperspectives](http://www.course.com/newperspectives)

**Lecture Topics and Reading Assignments *All reading assignments must be complete prior to the following week’s lectures.***

1. September 2 – Lecture Topics: Introductions, housekeeping, student information form filled out in class. Why XML? Associated technologies.

Reading Assignment: <http://www.simonstl.com/articles/whyxml.htm>

2. September 9 – No Class.

3. September 16 – Lecture Topics: Review of HTML, JavaScript. The XML Standard

Reading Assignment: <http://www.xml.com/pub/a/98/10/guide0.html>

4. September 23 – Lecture Topics: Working with Namespaces

Reading Assignment:

<http://www.tei-c.org/release/doc/tei-p5-doc/en/html/SG.html>

AND:

* [XML Schema Tutorial](http://www.w3schools.com/Schema/default.asp)
* [XML Schema Tutorial](http://www.learn-xml-schema-tutorial.com/)
* [DTD, XML Schema, and DSD](http://www.brics.dk/~amoeller/XML/schemas/)
* [XML Entity and URI Resolvers](http://xml.apache.org/commons/components/resolver/resolver-article.html)
* [The Wonderful World of Entities](http://www.brainbell.com/tutorials/XML/The_Wonderful_World_Of_Entities.htm)

5. September 30 – Lecture Topics: Creating and Validating an XML Document.

Reading Assignment: Wendell Piez: “Beyond the Descriptive vs. the Procedural Distinction.” Location: Blackboard

6. October 7 – Lecture Topics: DTDs and Schemas

7. October 14 – Lecture Topics: Cascading Style Sheets.

8. October 21 – Lecture Topics: Midterm review.

9. October 28 – Mid-term: Open-book Exam;

 Lecture Topics: Beginning XSLT

10. November 4 – Lecture Topics: XSLT Continued

11. November 11 (Veteran’s Day) – Lecture Topics: Final Projects.

***Bring in a concept of your final project.***

12. November 17 - Lecture Topics: Course Summary.

 ***DRAFT of your FINAL PROJECT due.***

13. November 25 - Thanksgiving Break – No Class.

14. December 2 – **Last Class**: ***Final Project Reviews***

**Attendance/participation**

Students are expected to attend all the class sessions and fully participate in the class activities. More than two unexcused absences will result in the loss of one full letter grade. If you have four or more, your grade will be reduced by two full letter grades.

**Assignments**

Homework assignments are given in the form of hands-on exercises involving existing XML editors and parsers. Each student should complete each assignment independently and hand-in the work on time. Homework assignments will be coordinated in class and on Blackboard. If you miss a class, it is your responsibility to determine homework assignment due for the following week.

Points will be deducted for late assignments.

**Mid-term Exam**

We will have an in-class open book exam on the topics covered during the first part of the semester.

**Final Exam**

There is no final exam for this course; the Final Project Review is the final exam.

**Final Project**

The final project will be a PROJECT that the student creates which demonstrates the use of XML principals in its’ construction. Some examples/exercises not used in class from the text can be used as final projects (the choice of exercise **must be approved for use** *by instructor* to receive full credit as a final project).

Oral and visual presentation/demonstration of completed project will be made to the class on the last day of class.

**Grading**

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| --- | --- |
| **Tasks** | **Percentage** |
| Assignments | 30% |
| Midterm Exam | 20% |
| Final Project  | 30% |
| *Very important:* |  |
| Class Participation  | 20% |

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| **Grading Scale** |   |
| A | 95-100 |
| A- | 90-94 |
| B+ | 85-89 |
| B | 80-84 |
| B- | 75-79 |
| C+ | 70-74 |
| C | 65-69 |
| C- | 60-64 |
| D | 50-59 |
| E | 0-49 |

**Policies**

Students will not be excused from any due date of assignments, projects or exam for any reason, unless you have PRIOR approval from the Instructor.

Late assignments will receive a half letter grade reduction for each day late; while a late final project or final exam will be penalized a full letter grade for each day late.

The instructor can be reached by email, however, an immediate response is not guaranteed. Every attempt will be made to respond to emails within a 48-hour period. If students need an immediate response, please call the cell phone number listed above.

[Plagiarism](http://www.albany.edu/undergraduate_bulletin/regulations.html) and cheating will result in a failing grade for the course, and will be referred to the Office of Judicial Affairs according to the policies set forth in the current University at Albany Undergraduate Bulletin or University at Albany Graduate Bulletin, whichever is appropriate to the student.

Reasonable accommodations will be provided for students with documented physical, sensory, systemic, cognitive, learning and psychiatric disabilities. If you believe you have a disability requiring accommodation in this class, please notify the Director of Disabled Student Services (Campus Center 137, 442-5490).