Introduction to the Semantic Web
CS 479/579 Section 5

Syllabus
Fall 2006

Texbook:

We will mostly adopt material drawn from the web. The following are recommended readings:

- G. Antoniou, F. van Harmelen. *"A Semantic Web Primer"*, MIT Press, 2004.

- D. Fensel, J. Hendler, H. Lieberman. *"Spinning the Semantic Web"*, MIT Press, 2005.

- K. Baclawski, T. Niu. *"Ontologies for Bioinformatics"*, MIT Press, 2006.

Interesting sources of information can be found at:

- The World Wide Web Consortium `www.w3.org`

- The W3 Schools `www.w3schools.com`

Grades:

Your grade in the course will be based on:

- *Homework Assignments:* these will include learning and installing semantic web tools, developing applications and developing reports. The homework assignments will contribute to 50% of the grade.

- *Presentation:* each group of students (at most two) will be assigned a topic, and required to do research and develop a 30 – 45 minutes presentation. The presentation will contribute for 20% of the grade.

- *Final Exam:* a final, comprehensive exam will be assigned at the end of the course. The exam will take place at a date and time to be determined in class. The final exam will contribute for 30% of the grade.

No late homework assignments will be accepted after graded assignments have been returned. Assignments submitted after the deadline will be considered late and penalized by 10% each day.
    The homeworks and tests are **individual** (unless explicitly stated otherwise)! You are free to discuss general issues with your colleagues, but you are required to come up with your own solutions and implement them without any external aid.

Topics Covered:

The following is a tentative list of the topics covered in this course:

- The Semantic Web: **Introduction and Motivations**
- Basic **XML** and XML Processing
- The **Document Type Definition** (DTD)
- XML **Schema**
- **Query** Languages (Xpath, Xquery)
- The Resource Description Framework **(RDF)**
- The Web Ontology Language **(OWL)**
- A Taste of **Description Logic**
- The Rule Markup Language **(RuleML)**
- Introduction to Web **Services** and **WSDL**
- Introduction to **SOAP**
- **Applications** of the Semantic Web

Class Meetings:

The class meets on Monday from *1:30pm* to *3:00pm*. The class meets in SH 118B.

Instructors:

The course is co-taught by:

Son Cao Tran	Enrico Pontelli
SH Room 161	SH Room 163
tson@cs.nmsu.edu	epontell@cs.nmsu.edu

Office Hours:

Enrico Pontelli:	Tue/Thu 5:30–6:30 (SH163)
	and by appointment (requested via email)
Son Cao Tran:	Tue/Thu 1:30–2:30 (SH161)
	and by appointment (requested via email)

Notes

- attendance is not mandatory, but strongly encouraged; material covered in class will be used in the tests and homeworks.

- If you decide to withdraw from the course, you are responsible for ensuring that all steps are taken to formally withdraw. Do not assume that you will be dropped automatically.

- The grade of I (incomplete) may be given only if you are unable to complete the course due to documented circumstances beyond your control that develop after the last day to withdraw from the course. Appropriate circumstances include illness and death or crisis in your immediate family. Consult the university catalog for regulations regarding the I grade. In no case will an I grade be assigned to avoid a grade of D or F in the course.

- If you elect to be graded under the S/U option, you must declare your intention when registering for the course. All work in the class will be graded in a manner identical to that for students choosing the letter grade option. At the end of the semester, your final letter grade in the course will be used to assign either a S or an U. You must achieve a minimum grade of C in order to receive a grade of S.

- The guidelines for academic conduct are stated in the University catalogs. **Any** violations of the code will result in a grade of F for the course, in addition to any further sanctions imposed by the university. The university has developed a web page presenting the key issues of academic misconduct: `http://www.nmsu.edu/%7Evpsa/SCOC/misconduct.html`. Observe that intentional and unintentional plagiarism are prohibited and will be dealt with according the academic misconduct policies. A definition of plagiarism has been described at: `lib.nmsu.edu/instruction/plagiarismforstudents.htm`.

  Unless explicitly stated by the instructor, you are assumed to perform the assigned work by yourself, without any external collaboration. Note that a person copying an assignment is guilty of a violation of academic conduct, as is the person from whom the assignment was copied.

- Feel free to call Jerry Nevarez, Director of Institutional Equity, at 505-646-3635 with any questions you may have about NMSU's Non-Discrimination Policy and complaints of discrimination, including sexual harassment.

  Feel free to call Michael Armendariz, Coordinator of Services for Students with Disabilities, at 505-646-6840 with any questions you may have on student issues related to the Americans with Disabilities Act (ADA) and/or Section 504 of the Rehabilitation Act of 1973. All medical information will be treated confidentially.