

## SYLLABUS FALL 2013

### CSCI 497 – Service Engineering & Semantic Web

Room: JOUR 104

**Date and Time: Wednesday: 4:30 – 7:15 pm; Meets 08/28/2013 thru 12/11/2013**

**Instructor:** Dr. Thomas E. Kollman

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Additional for appointment or by E-mail, please when you contact include **CSCI 497** in the subject of your message.

#### **COURSE DESCRIPTION:**

**TEXT: SEMANTIC WEB PROGRAMMING**, 2009, Authors: John Hebel, Matthew Fisher, Andrew Perez-Lopez, Ryan Blace. Technical Editors: Mike Dean, reviewer/editor and Mike Smith, technical editor. Published by Wiley Publishing Inc. 10475 Crosspoint Boulevard, Indianapolis, IN, 46256; [www.wiley.com](http://www.wiley.com) Copyright © 2009 by Wiley Publishing, Inc., Indianapolis, IN. ISBN: 978-0-470-41801-7

#### **COURSE CONTENT:**

Chapters 1-15, plus 6 appendix areas covering RDF, The OWL Ontology Language, SWRL, SPARQL, Jenna Reference Guide, and Installation Reference Guide.

#### **MAIN OBJECTIVE:**

This course is intended to provide a comprehensive, balanced and up-to-date coverage of the Semantic Web offering a powerful, practical approach to gain mastery over the multitude of information and information services. Semantics offer the leverage to make more information better and not overwhelmingly worse.

#### **LEARNING OBJECTIVES:**

The fifteen chapters are organized in four parts. Part 1: "Introducing Semantic Web Programming" covers Chapters 1 "Preparing to program a Semantic Web of Data," Chapter 2, "Hello Semantic Web World," dives right into working code with an exhaustive Hello Semantic World Web program. This section is critical if you are new to the Semantic Web.

Part 2, "Foundations of Semantic Web Programming," covers Chapters 3 through 7. Two main areas drive a Semantic Web application: knowledge representation and application integration. This section focuses on the former, representing and manipulating knowledge.

Part 3, "Building Semantic Web Applications," covers Chapters 8 through 11. This section deals with the second main area – integrating the knowledgebase with an application that acts upon it. This part provides a solid programming base for the Semantic Web.

Part 4, "Expanding Semantic Web Programming," covers Chapter 12 through Chapter 15. Here we build on your solid base of knowledge representation and Semantic Web application development to expand into powerful, useful areas, including semantic services, time and space, Semantic Web architectures and best practices, and unfolding Semantic Web tools that are almost here. This provides a solid view into what is on its way in the actively evolving Semantic Web.

### **COURSE EVALUATION:**

#### **BASIS FOR EVALUATION:**

- Quizzes 25%
- Final Exam 25%
- Assignments 25%
- Case Assignments and presentations 25%

#### **GRADING POLICY:**

- **A:** 100%-90%
- **B:** 89%-80%
- **C:** 79%-70%
- **D:** 69%-60%
- **F:** Less than 60%

The professor reserves the rights to reward students for continuous hard work or for an exceptional novel scientific work (as judged by the instructor) relevant to the topics covered.

The professor reserves the right to assign advanced problems for extra credit to interested students.

The programs will be submitted in an electronic form, whereas the other assignments are to be written in a paper unless otherwise specified.

<b>Final Test</b>	<b>Section:</b> 497.001	<b>Date:</b> TBA	<b>Time:</b> TBA
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### **COURSE POLICIES:**

#### **EVALUATION CRITERIA EXPLAINED:**

- Students are expected to be active participants in each class meeting.

- Assignments will consist of a number of individual and group in class and homework tasks. Students will be given specific guidance on the amount of collaboration permitted for each assignment. Unless otherwise specified, all assignments are individual assignments, and thus must be completely the original work of the student submitting them and include proper citations to the published work of others.
- At the conclusion of the group projects, students will be required to complete group member evaluations and analysis of performance ratings surveys.

**SHORT QUIZZES:** *are to be solved independently during the class period. The quizzes will be administered in class. Makeup quizzes will not be given. However, the lowest quiz grade will be dropped.*

**FINAL EXAM:** *The comprehensive final exam will consist of objective questions and will require a technological comprehension that covers the lecture material and assigned readings. The content will come from the text and other material presented in lecture sessions as well as outside reading and project assignments. Note that material presented in class and group case assignments will supplement the assigned readings. Therefore, class attendance and good note taking are essential tactics for success. Students will be informed of the test dates around a week in advance. The test will take one class period and will be given at the scheduled times only. No opportunity will be given to take the test at earlier or later times except in extreme cases as judged by the instructor.*

**MAKEUP:** *Except extreme cases (as judged by the instructor), no individual makeup test will be permitted.*

**STUDENTS WITH DISABILITIES ACT COMPLIANCE:** The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact: **Office of Student Disability Resources and Services; Texas A&M University-Commerce; Halladay Student Services Building; Room 303 A/D; Phone (903) 886-5150 or (903) 886-5835; Fax (903) 468-8148 or email: [StudentDisabilityServices@tamuc.edu](mailto:StudentDisabilityServices@tamuc.edu)**

**ATTENDANCE POLICY:** *"Students are expected to be present for all class meetings of any course for which they are enrolled. Per University Procedure A13.02, effective September 1, 1996, students are responsible for learning about and complying with the attendance policy stated in the catalog, Student's Guidebook, and/or faculty syllabus." Student Handbook. The Professor cannot drop or withdraw any student. Lateness and leaving class early may count as an absence and are not acceptable unless you are ill or a family emergency exists. If you miss a class, it is your responsibility to obtain notes from a fellow student. Office hours are not meant for individual lectures. Any class material missed by the student is the student's responsibility to acquire.*

**ACADEMIC ETHICS AND HONESTY STATEMENT:**

Academic integrity is the pursuit of scholarly activity free from fraud and deception and is an educational objective of this institution. **Academic dishonesty includes, but is not limited to, cheating,**

plagiarizing, fabricating of information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. If you are caught in an academic dishonesty situation on any course work, you will be given a grade of F for the course and you may be referred to the Dean of Students for further disciplinary action.

***"All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment."*** (See **Student's Guide Handbook, Policies and Procedures, Conduct**).

**Withdrawal Policy:**

There are deadlines for withdrawing from this course. It is the student's responsibility to follow these deadlines and procedures.

The professor may make supplementary information for the course available online. These include class notes, assignments, PowerPoint slides, class announcements, the course syllabus, test dates, etc. The professor will announce in class when such information becomes available online. It is the student's responsibility to follow these announcements.

The professor maintains the right to modify the course policy within the semester if need arises. Some changes are likely within the first several weeks.