Department of Information Systems and Technology Management

ISTM 6213 – Enterprise Web and Database Applications
Fall 2016

Instructor

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Office Hours: Monday 5:30-6:30pm, Thursday 3:30 – 4:30pm and by appt

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Course Description
This course provides the student with a theoretical and technical foundation and a hands-on familiarity of the concepts that are dramatically changing enterprise applications. The theoretical foundation is developed into the technologies, concepts, architectures and frameworks emerging today. As the theoretical concepts of cloud computing and the internet itself as a platform, the architecture of enterprise applications continues to change. Future database solutions must be designed to run in a virtual, highly scalable, cloud-computing environment. This course examines the evolution of the internet from a resource for providing static information to a hardware and software architecture providing the major resources for globally distributed applications using cloud computing. Topics covered include web servers, web application development methods, data stores for massively distributed applications, client side and server side scripting, web application frameworks and web application development techniques.

This course is offered for students interested in understanding how to get the maximum value from the vast array of technologies used to build applications using the internet. Each student will manage a virtual server and complete labs on that server. As part of a group development effort, students will build a contemporary web application from the ground up. This course teaches the development of Web applications through extensive hands-on activities.

Prerequisites

ISTM 6202 and ISTM 6205 or permission of the instructor. By default, the programming and database prerequisite as well.
Learning Objectives

Upon completing this course, the students will be able to

1. Understand the concepts, principles and standards of the Internet and the WWW,
2. Understand the design strategies and usage scenarios of Web 2.0 applications
3. Understand the use of user interface libraries, templates and frameworks
4. Understand the Model-View-Controller framework
5. Use the state-of-the-art web application development tool, languages and cloud resources to develop web applications,
6. Apply current technology in web application development, including AJAX and several widget libraries

Text (from ISTM6205)

2. Laravel Design Patterns and Best Practices Kindle Edition by Arda Kılıçdağ
3. Laravel 5 Essentials Kindle Edition by Martin Bean (Author)

Software
Firefox with extensions: Elasticfox, Firebug, and Web Developer
Amazon EC2, jQuery, mySQL

Lectures
All lecture notes will be available on Blackboard.

Assignments
There will be 3 homework assignments partially based on in-class labs. They are designed to reinforce your understanding of the topics covered. Everyone should independently do and turn in his/her own work. All assignments must be submitted electronically on Blackboard. Late assignments will not be accepted. If you are away and cannot attend class you are still required to submit your assignment on time.

Technology Presentation

Students, as part of a group, will develop and present and executive briefing on emerging technologies for enterprise applications.

Team Project
Students will have the opportunity to further sharpen their skills and acquire hands-on experience
with practical web application development problems through a team project. Students will form
groups consisting of between 3 and 6 people depending upon the size of class. Each team will
give a brief class presentation on the project during the last week of classes. A detailed handout
about the project will be made available at the second week of the class. The project deliverables
will include project report, presentation and a prototype.

At the end of the semester you will complete a confidential peer-evaluation form in which you
will evaluate the contribution of each of your group members.

Exam
The exam will be an in-class and closed-book/notes. One page notes and a calculator are
allowed.

Grading
Student grades will approximately consist of the following elements as related to learning
objectives:

Assessment

(20%) Homework Assignments;
(10%) Technology Presentation
(40%) Class Project (including 10% based on peer evaluation);
(30%) Exam;

Tutorials from W3Schools.com

T1 - HTML: http://www.w3schools.com/html/default.asp
T2 - CSS: http://www.w3schools.com/css/default.asp
T3 - Javascript: http://www.w3schools.com/js/default.asp
T4 - XML: http://www.w3schools.com/xml/default.asp
T5 - DOM: http://www.w3schools.com/htmldom/default.asp
T6 – jQuery: http://www.w3schools.com/jquery/default.asp
T7 – PHP and MySQL: http://www.w3schools.com/php/default.asp
T8 - Ajax Tutorial http://w3schools.com/ajax/default.asp