ISMT E-200
Trends in Enterprise Information Systems

ISMT E-200 (13043), Trends in Enterprise Information Systems
Saturday 10:00 am -12 noon
Sections 9:00 am – 10:00 am starting on the third week of class
Science Center 111

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Course Overview

Trends in Enterprise Information Systems is a capstone for the Information Management Systems (IMS) concentration. The course brings together topics learned throughout the students’ graduate coursework in a format that combines lectures, case studies, and team projects.

This course will address topics which often fall between traditionally separate approaches to Software Engineering and Management Information Systems. It will focus on best practices in large Information Systems organizations, blending business and technology perspectives in each topic.

A special emphasis will be placed on various types of enterprise-scale software applications, including web portals. Issues surrounding development and deployment of complex IT technologies in large business settings will be covered in case studies.

In our studies of enterprise IT solutions, we will keep three perspectives:

- Business perspective: how does it contribute to business goals; how does it fit/shape/enable business processes?
- Technical perspective: what are the technological advantages, integration impacts and implementation steps?
- Organizational perspective: how enterprise IT organizations implement and support business technology.

Who Should Attend

The course is geared toward professionals with strong technical background in software development and/or IT operations. An overall understanding of software application
architecture and development process is expected even though no software coding is required in this class.

Prerequisites: at least nine Master of Liberal Arts in Information Technology courses in the IMS concentration, or instructor’s permission.

Topics

Module 1. The Business Perspective
- Introduction
- Business Requirements for Enterprise Systems
- Enterprise Applications
- Architecture and Business Process Modeling

Module 2. Technical Perspective
- Enterprise Portals & Business e-Bonding
- System Integration and Service-Oriented Architecture
- Enterprise Data Management

Module 3. Organizational Perspective
- IT Service Management and ITIL
- Guest lectures

Class Schedule

The schedule will be posted on the class website at the start of the course.

Grading

Team grades:
- The capstone paper will have three phases, each graded separately
- A team grade for the final project presentation.

Individual grades:
- Contribution to class learning
- Written case analysis

Final grade calculation:
- 30% - the team grades for three parts of the capstone paper (10% *3)
- 10% - final presentation – team grade
- 50% - contribution to class learning
- 10% - written case analysis.
Reading

- Recommended reading list will be offered with each lecture: white papers from leading IT companies, industry surveys from Burton Group, Gartner Inc. and Forrester Research, and academic articles from Harvard Business School and MIT Sloan School of Business.

Sections

- Sections will start with the third week of classes
- Sections will be lead by the Instructor and a Teaching Assistant
- Section attendance is required
- Section time will be used for capstone paper meetings.

Case Studies

- In business case studies, students will explore real-life industry scenarios with enterprise-scale IT systems
- Case study sources: CIO Magazine Archive, Harvard Business School, and MIT Sloan School of Business (CISR). A case list will be provided at the first class
- Each case will be analyzed and discussed in class.

Capstone Paper

End-of-term team paper is a comprehensive proposal for an information technology solution: an application, product or service. This is a collaborative effort where students are expected to demonstrate technical depth, to work within business constraints, and to apply knowledge from the course. The proposal will offer a cost-sensitive technology solution for enabling a specific business objective.

To offer a business perspective, we will introduce a fictitious company “GLOCO, Inc.” which seeks to upgrade its enterprise information systems and modernize its technology infrastructure. The GLOCO case will serve as a common framework for student projects.

Because the enterprise IT field is evergreen with emerging new trends and technologies, we keep the topic list open. Students may choose topics from the class readings, bring real-life industry scenarios, or use the topics offered by instructor. Samples of previous year papers are available on the class website.

At the final class meeting, students present their papers to the IMS concentration committee.
The capstone paper includes three parts: business requirements, technical specification and prototype, and implementation plan. The work is submitted in five steps:

- **Proposal**
  Post a 1-2 page high-level statement about the proposed topic.
  **Deliverable: Proposal Statement (“Executive Overview”).**

- **Part 1. Business Requirements**
  Problem statement
  Required functions and features. Use cases.
  Financial justification
  Project success criteria: measurements and expected results
  **Deliverable: Statement of Business Requirements. 2-4 pages.**

- **Part 2. Technical Specification and Prototype**
  Architectural approach
  Software solution
  Integration with existing enterprise applications
  Key data elements and flows
  Operational considerations
  Solution demonstration. Students may create a mockup (a PowerPoint presentation or a hard-coded html website), or use a vendor’s demo. Software coding is not a requirement in this course.
  **Deliverable: Technical Specification. 5-10 pages.**

- **Part 3. Implementation Plan**
  Plan: define the timeline, deliverables, and success metrics
  Operational details: stakeholders, resources, dependencies, constraints, issues
  **Deliverable: Implementation Plan. 2-4 pages.**

- **Final Presentation**
  Written paper submitted for grading.
  Oral presentation to the IMS program committee
  **Deliverables: Project Binder with documents (1) through (4), and a PowerPoint presentation.**