ISMT E-200
Trends in Enterprise Information Systems

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 that often fall between traditionally separate areas of Software Engineering and Management Information Systems. It will focus on best practices in large enterprises, blending business and technology perspectives in each topic.

A special emphasis will be placed on enterprise-scale, complex software applications and issues surrounding their development and deployment in large business settings.

In our studies of enterprise information systems, we will keep three perspectives:

- Business perspective: how do systems contribute to business goals; how do they enable business processes?
- Technical perspective: what are the technological advantages, integration impacts and implementation steps?
- Organizational perspective: how enterprises implement and support IT systems?

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
- Business strategy and Technology alignment
- Business requirements for enterprise systems
• Enterprise architecture

Module 2. Technical Perspective
• Enterprise software applications
• Enterprise portals & cross-enterprise systems
• System integration and service-oriented architecture

Module 3. Organizational Perspective
• IT service management
• Information Technology Infrastructure Library (ITIL)

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% - final presentation – team grade
• 20% - written case analysis
• 40% - in-class oral case discussions
Reading

- Reading material lists 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 working in teams on the capstone papers.

Case Studies

- In business case studies, students will explore real-life industry scenarios with enterprise-scale IT systems
- Cases are adapted from: 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 with class discussions and active coaching by the professor and teaching assistants. Students are expected to apply knowledge from the overall program and to demonstrate technical expertise and understanding of relevant business context. 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.

To meet the capstone requirement, students present their papers to the IMS concentration committee at the final class meeting.
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
  Financial justification
  Project deliverables
  Success metrics
  **Deliverable: Statement of Business Requirements. 2-4 pages.**

- **Part 2. Technical Specification and Prototype**
  Architectural approach
  Software solution
  Integration with existing enterprise applications
  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 required in this course.
  **Deliverable: Technical Specification. 6-10 pages.**

- **Part 3. Implementation Plan**
  Plan: define the timeline, deliverables, and success metrics
  Operational details: stakeholders, resources, and dependencies
  **Deliverable: Implementation Plan. 3-6 pages.**

- **Final Presentation**
  Written paper submitted for grading.
  Oral presentation to the IMS program committee
  **Deliverables: Project Binder with documents (parts 1 through 3), and a PowerPoint presentation.**