IS-344: Computing Applications in Business

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Office Hours: Immediately following class or by appointment

Overview

This course will provide a comprehensive overview of various types of information systems used by today's organizations in order to operate effectively and efficiently. Information systems that are used by all the major functional departments within organizations are examined and evaluated to see how applications are integrated to implement "business processes" that flow across department and organizational boundaries. Various types of contemporary information systems will be covered, including: Accounting Information, Financial Reporting Management, Enterprise Resource Planning, Customer Relationship, Supply Chain Management, Electronic Commerce, Business Intelligence and Analytics, Controls and Auditing.

Prerequisite

IS 265 (or Department permission).

Course Goals

The course will emphasize an understanding of information systems that enable the business processes of order entry / management, customer relationship management (CRM), procurement, supply chain management (SCM), product life cycle management (PLM), and enterprise resource planning (ERP).
The course is taught from the standpoint of an Enterprise Resource Planning system.

The students will be able to:

- Understand how applications are integrated to implement "business processes" that flow across department boundaries, and from suppliers to customers
- Gain experience in using an enterprise management system and related computing applications to support key business functions
- Apply knowledge of computing to define the appropriate computing applications required to support an organization's business functions
- Analyze the organizations' processes in order to define the computing application requirements appropriate to its needs
- Participate in teams and work collaboratively to successfully complete team assignments
- Effectively communicate and present assignments to the whole class and the instructor

Student outcome addressed by the course:

- An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution
- An ability to function effectively on teams to accomplish a common goal
- An ability to communicate effectively with a range of audiences
- An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs

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Topics to be covered

- Business Functions & Processes
- Development of Enterprise Resource Planning Systems
- Marketing Information Systems and the Sales Order Process
- Customer Information Systems and Customer Relationship Management
- Production and Supply Chain Management
- Accounting in ERP Systems
- Human Resources Processes in ERP
- Process Modeling, Process Improvements in ERP systems
- Enterprise Architecture
- Implementing an ERP system
- Business Intelligence
- Mobile Computing
- Social Media
- Cloud Computing
- IT Security, Controls, Governance

Textbook

Ellen Monk, Bret Wagner, Concepts in Enterprise Resource Planning, 4th Edition, Cengage Learning, 2011

On-Line Computer Conferences and Participation

We shall be using the Moodle learning management system for on-line discussions and participation.

Honor Code

Any evidence of cheating in any form, including plagiarism, will be dealt with according to the honor code of NJIT (course failure and suspension or expulsion). Any discovered case of cheating will be immediately passed to the Dean of Students for further investigation. The full text of the NJIT Honor Code is available for your review at http://www.njit.edu/academics/honorcode.php

Grading

Assignment	Weight	Due Date
Participation and discussions	30%	As assigned
Team Case Studies Reports and Presentations	10%	9/26, 10/10
Exam	25%	11/7
Quiz	5%	12/5
SAP Open Course	5%	Weekly starting 10/24
Team Final Project Presentation and Report	25%	12/12

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Assignments Details

There will be several major activities/assignments over the semester. Peer evaluations are required on the Team Case reports and presentations and Team Final Project.

Participation and discussions (30%)

In addition to class discussions and participation, Discussion Questions designed to explore topics and concepts will be posted in Moodle. Generally, your responses to each discussion question should be at least 250 words in length, but no more than a full page. In addition some discussions may require that you submit an analysis in Excel. You should post your initial response to discussion questions not later than **Friday** of the due week. You are expected to comment on responses posted by others when you have additional thoughts on the subject matter or if you have any questions or feedback.

Papers and Articles will also be posted to foster discussions and introduce important topics.

Team Case Studies (10%, 2 @ 5% each)
We will do two case studies for which I will provide you with a series of questions. Groups will be formed and you will work collaboratively on the answers. The result of your work will be a written case study report and PowerPoint presentation that you will present to the class, with the following content:

- Introduction: Basic description of the case
- Analysis: What is the problem or problems and why.
- Solutions: What are the possible solutions and their Pros and Cons
- Recommendation: What would you propose as a solution to the problem?
- Answers to the case study questions.

It's very important to integrate the relevant course materials in to your analysis.

Open SAP Course (5%)

SAP offers short open, online courses in a variety of topics. You are to select and enroll in one of these courses. You will follow the weekly lectures (2-4 hours per week) and post a one page summary in a weekly forum that I will create. The weekly summary will be a recap of what was covered and what your key learnings were. This weekly summary will be due by noon on Friday and you should be ready to share your learnings with the class. You will need to register at the Open SAP site, at the following link : https://open.sap.com/

Exam (25%)
On line, open book exam covering chapters 1-6.

Quiz (5%)
On line, open book exam covering chapters 7-8.

Final Project presentation and report (25%)

Groups will be formed and you will work collaboratively to select a company you are working at or have worked for or are familiar with and write an IT strategic plan covering the topics discussed in the course

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Course Schedule

Week	Topic	Reading	Assignment Due
#1 – Sep 12	Course Introduction Business Functions & Processes	Chapter 1	Discussion Questions
#2 – Sep 19	Development of Enterprise Resource Planning Systems	Chapter 2	Discussion Questions **Final Project Company Selection**
#3 – Sep 26	Marketing Information Systems and the Sales Order Process	Chapter 3	Discussion Questions **Team Case Study**
#4 – Oct 3	Customer Information Systems Cust Relationship Management	Chapter 3	Discussion Questions
#5 – Oct 10	Production and Supply Chain Management	Chapter 4	Discussion Questions **Team Case Study**
#6 – Oct 17	Accounting in ERP Systems	Chapter 5	Discussion Questions **Final project – Current Status Draft**
#7 – Oct 24	Human Resources Processes in ERP	Chapter 6	Discussion Questions Open SAP Course
#8 – Oct 31	Enterprise Architecture Mid-Term Review	Chapter 7	Discussion Questions **Mid-Term Exam (on-line due 11/7)**
#9 – Nov 7	Process Modeling and, Process Improvements in ERP systems Implementing an ERP system	Chapter 7	Discussion Questions Open SAP Course
#10 – Nov 14	Business Intelligence	Chapter 8	Discussion Questions Open SAP Course **Final Project Future State Draft**
#11 – Nov 21	Mobile Computing Social Media	Chapter 8	Discussion Questions Open SAP Course
#12 – Nov 28	Cloud Computing	Chapter 8	**Quiz (on-line due 12/5)** Open SAP Course **Final Project Implementation Plan**
#13 – Dec 5	IT Security, Controls, Governance		**Open SAP Course Presentations**
#14– Dec 12	Course Summary		**Final Project Presentations**