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Fall 2019

# IS 344-001: Computing Applications in Business

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# New Jersey Institute of Technology Ying Wu College of Computing Department of Informatics

#### IS 344-001: Computing Applications in Business

Class Meets Wednesday and Friday, 10:00 am-11:20 am, CKB 222

Instructor: David F. Ullman
Professor of Practice

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Office Hours: Tuesday: 4-5:30 PM; Wednesday, 11:30 AM – 1:00 pm

#### Description:

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.

#### Required Background:

Prerequisites: One of the following: (MIS 245, IS 265, ACCT 115, ACCT 117 or MGMT 390) or permission of instructor.

#### Course Objectives:

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 outcomes 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

#### Required Text:

Ellen Monk, Bret Wagner, *Concepts in Enterprise Resource Planning*, 4th Edition, Cengage Learning, 2011. ISBN-13: 978-1-111-82039-8; ISBN-10: 1-111-82039-8; Digital Versions are acceptable.

#### Academic Integrity

Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found *here*.

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university.

There will be no warnings or second chances with regard to cheating. It is your responsibility to understand specifically, what constitutes academic dishonesty. Ignorance is not an excuse or a defense. It is also your responsibility to understand the rules for properly citing the work of others in submission of classwork. Improper citation with a simple "copy/paste" from online sources may be grounds for failure of the assignment and/or the course.

If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at <u>dos@njit.edu</u>.

#### Learning Management System:

We shall be using the Moodle learning management system (LMS) for on-line discussions, assignment submissions, distribution of readings, announcements and other activities. It is your responsibility to check Moodle regularly. In the event we cannot meet at the regularly scheduled class time (e.g. inclement weather), the class will be held asynchronously, with lecture recordings and discussions in Moodle.

#### Course Structure:

The course meets twice weekly for in-person lectures and discussions. Students are expected to have read relevant textbook chapters and/or assigned readings prior to the class meeting in order to participate in discussion. Lectures are designed to clarify and supplement the textbook material.

There are several major activities over the semester, described below, with the percentage weights toward final grades.

- 1. Discussion Forums / Mini-Case Study Assignments 30%
  - a. 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. In general, should post your initial response to discussion questions by Sunday evenings. You are also 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.
    - Additional readings (papers, articles) will be posted in Moodle to foster discussions and introduce important topics.
  - b. We will do at least two small 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.

3. Hands-On SAP Lab Work – 15%

We plan to introduce hands-on experience with SAP to enhance your understanding of ERP software concepts. The goal is to provide you with exposure and a high-level understanding of the complexity of ERP systems and the integrated nature of business functions. This will begin approximately half-way through the course. Details of which option we follow will be made available in Moodle.

4. Exams – 35% (Mid-term 15%; Final 20%)

There will be a mid-term, and a final exam. Both are closed book and will be administered online, and you will be expected to bring a portable computer to class to take the exam. You will be required to install special software, the Respondus Lock-down browser, on your computer, in order to take the exam. Details will be posted in Moodle.

#### 5. Group Project and Presentation – 20%

Groups will be randomly formed and you will work collaboratively to produce an RFP (Request for Proposal) for an ERP system for company in a specific industry. You will need to apply an understanding of common functional areas and those specific to the industry, describe core industry processes and information needed. Teams will compete as separate consulting firms looking to win contracts and give final presentations to the class. Additional information will be posted in Moodle.

#### On Group Work:

A word of caution on the submission or group work: Do not take the questions or parts of the assignment and simply divide it up by the number of group members, and "paste together" the result for submission. Each group should elect a "Leader" once the groups are announced. All members of the group should take a first attempt at all parts of the assignment, and the group should meet, discuss answers, and then decide how the best results can be integrated into a single, coherent document.

Groups that simply divide the work among group members and then simply append parts together are likely to earn poor grades. The submission must be written from a consistent perspective and read as a cohesive whole.

#### **Grading Policy:**

Grade	Description	Percentage
A	Superior	90 – 100
B+	Excellent	85 – 89
В	Very Good	80 – 84
C+	Good	75 – 79
С	Acceptable	70-74
D	Minimum 65-69	
F	Inadequate Below 65	

#### Miscellaneous:

- 1. Moodle has two Important Discussion Forums. You are auto-subscribed to both with your NJIT email address:
  - News and Instructor Announcements This will be used for general news and announcements for the instructor. The instructor generally initiates original postings. Students may ask questions as REPLIES to Instructor postings.
  - Help and Open Discussion, and Interesting Links Forum This is for you to ask a general question
    on the course, start a discussion on something course related (that is not discussed elsewhere), or share
    interesting course related material you come across. Student should feel free to answer questions
    posed by classmates.
- 2. If you have a question that is particular to you as an individual (e.g. grade, late assignment) you may email me directly. Please put IS-344 in the subject line so that I can filter your emails to be read quickly (as opposed to them being ignored as junk e-mail).

- 3. I am happy to meet with students outside of class. Feel free to stop by my office anytime and during the posted office hours. If you would like an appointment outside of office hours, its best to email me so we can set a convenient time. (Put IS-344 in subject line).
- 4. The weekly schedule posted below is tentative. We will follow the chapters in the book consecutively, supplemented with interesting related material selected by the instructor and of interest to the class.
- 5. SAP Hands-on Lab will begin at approximately the 5<sup>th</sup> week.
- 6. The midterm date is fixed and will cover lecture and book chapters covered to date. The final exam is scheduled during exam week.

# Tentative IS 344-001 - Course Schedule/ Weekly Outline – Fall 2019

Week	Topic	Reading	Notes
#1: Sep 2-8	Course Introduction Business Functions & Processes	Chapter 1	Discussion Questions
#2: Sep 9-15	Development of Enterprise Resource Planning Systems	Chapter 2	Discussion Questions
#3: Sep 16-22	Marketing Information Systems and the Sales Order Process	Chapter 3	Discussion Questions
#4: Sep 23-29	Customer Information Systems and Customer Relationship Management	Chapter 3	Discussion Questions
#5: Sep 30 - Oct 6	Production and Supply Chain Management	Chapter 4	Discussion Questions
#6: Oct 7-13	Accounting in ERP Systems	Chapter 5	Discussion Questions
#7: Oct 14-20	Human Resources Processes in ERP Mid-Term Review	Chapter 6	Discussion Questions
#8: Oct 21-27	Enterprise Architecture	Chapter 7	Discussion Questions Mid-Term Exam (in-class, online, Wed. Oct. 30
#9: Oct 28 – Nov 3	Process Modeling and, Process Improvements in ERP systems Implementing an ERP system	Chapter 7	Discussion Questions
#10: Nov 4-10	Business Intelligence	Chapter 8	Discussion Questions
#11: Nov 11- 17	Mobile Computing Social Media	Chapter 8	Discussion Questions
#12: Nov. 18- 24	Cloud Computing	Chapter 8	Discussion Questions
#13: Nov 25- Dec 1 (Thanksgiving Week – 1 Class Meeting)	IT Security, Controls, Governance		Friday Classes Meet on Wednesday, Nov. 27. Final Project Presentations
#14: Dec 2-8	Course Summary		Final Project Presentations
#15: Dec 11	Last Day of Classes		Course Review for Final
	Final Exam –		Date to be determined by Registrar's Office