ISM 620 SYSTEMS ANALYSIS
Fall 2008
Department of Information Systems and Operations Management
The Bryan School of Business
The University of North Carolina, Greensboro

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Class Room: 205 Bryan Building   Office Hours: Tuesday 4-5pm +Appointment
Class Time: Thursday 6:30pm - 9:20pm   Mail Box: 479 Bryan Building

GRADUATE CATALOG DESCRIPTION OF THE COURSE:

Pr. 601 or MBA 618 or permission of MSITM Program Director
Role of systems analysis and the many structured methodologies for its application. Incorporates a balanced consideration of traditional structured analysis and object oriented analysis.

COURSE WEB SITE:
The course is hosted on BlackBoard - http://blackboard.uncg.edu. Your userid is the same as your unix_id and the password is the same as your Novell Password. Please choose the appropriate course after you login.

REQUIRED MATERIALS:
Additional readings will be given in class and/or posted on BlackBoard

OTHER SUGGESTED READINGS:

COURSE DESCRIPTION:

ISM 620 takes a pragmatic approach to demonstrate the role of systems analysis and the many structured methodologies for the analysis of systems. The course will incorporate a balanced consideration of traditional structured analysis and object oriented analysis. More recent technologies such as computer-aided software engineering (CASE), reengineering, prototyping, JAD/JAR, Project Management, PC-based and client/server tools, and fourth-generation languages will also be examined.

Systems Analysis is concerned with the mechanisms for creating conceptual blueprints of systems that enable business processes. The area of study encompasses technical, economic, social,
organizational, and political elements. *ISM 620 Systems Analysis* will help students understand and appreciate system and process concepts such as automation boundaries, feasibility assessments, performance measures, information modeling, process re-engineering, systems quality, and value-added processes through information systems. Students will acquire the knowledge and skills necessary to collect data, analyze the data and create knowledge, and use analysis methodologies and tools to formalize their blueprints. The course emphasizes the skills necessary to “ask the right questions”, analyze systems and process information requirements and model systems requirements using standard systems methodologies and techniques.

**RELATIONSHIP TO OTHER COURSES:**

You will discover that systems analysis is made up of technical, economic, social, organizational, and political components. As such, the course bridges the skills and knowledge you’ve acquired in many other courses within and outside the ISOM department. Students will see the relationships between topics covered in their database class and topics covered in programming classes. In addition the course content links topics from courses in business processes, operations management, economics, and statistics and other business fields. Whatever your background or interest in IS, remember that all parties must recognize, understand, and manage competing viewpoints for successful projects.

**OBJECTIVES:** ISM 620 aims to develop the following knowledge and skill sets:

**KNOWLEDGE SETS**
1. Business and Strategic Information Systems
2. Automated business processes
3. Request for Proposals, Procurement Processes
4. Requirements Analysis
5. The Nature of Problem-Solving
6. Analysis Methodologies

**SKILLS SETS**
1. Produce Process and Data Models
2. Data Gathering Techniques
3. Produce Data Models
4. Produce USE case diagrams
5. Produce Structural models
6. Presentation Skills (verbal and written)

**INSTRUCTIONAL METHODOLOGY:** Lecture, readings, class discussion, and web-based content.

**ACADEMIC POLICIES:**
All students are required to follow the **UNCG Academic Integrity Policy** in completing course work. If you do not know provisions of the Honor Policy, make time to study it. Any student who is judged to have violated academic integrity, such as cheating and plagiarizing, will be subject to the penalties discussed in the Code on Campus Affairs. Please stay true to your own learning and writing. You are expected to be familiar with and abide the UNCG Academic Integrity Policy. The Policy may be found at: [http://www.uncg.edu/saf/studiscp/Honor.html](http://www.uncg.edu/saf/studiscp/Honor.html)

The URL for the Faculty/Student Guidelines and Academic Integrity Policy are the following:
[http://www.uncg.edu/abe/faculty_student_guidelines_sp07.pdf](http://www.uncg.edu/abe/faculty_student_guidelines_sp07.pdf)
[http://academicintegrity.uncg.edu/complete/](http://academicintegrity.uncg.edu/complete/)

**EMERGENCIES:**
Hopefully, none of you will encounter an emergency this semester. If you so encounter a situation that prevents you from fulfilling your responsibilities please contact me as soon as possible. In inclement conditions, use your best judgment when deciding to attend class. I will be here unless UNCG cancels classes! If in doubt, you should call 334-4400 to inquire about UNCG closings or postponements.
PERFORMANCE EVALUATION:
ISM 620 course grades will be determined by the combination of individual assignments, quizzes, in-class tests, article presentation and one major group project.

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Class Discussion and Presentations</td>
<td>15%</td>
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<tr>
<td>Assignments</td>
<td>15%</td>
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<tr>
<td>Group Project</td>
<td>30%</td>
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<tr>
<td>Final Exam</td>
<td>40%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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Class Discussion and Presentations (15%),
Students are required to contribute to class discussion and to present review and analysis of current research on technical and business aspects of information systems.

Assignments (15%)
Students will be required to demonstrate their understanding of the structured systems analysis methodologies and object-oriented systems analysis methodologies through individual or group assignments. These assignments may be article reviews and/or case-oriented problems where students demonstrate their skill in developing requirements specification and analytical models for the case problems.

Group Project (30%)
Students will be required to identify a real business problem for analysis and develop complete systems analysis documentation. This project will require students to utilize all the skills learned in the class using structured systems analysis and object-oriented analysis methodologies. The final deliverable for the group project includes requirements specifications, structured analysis documentation, object-oriented analysis documentation and documentation from the student groups that asserts how their analysis solves the business problem identified. Students submit a final report in written format and present their analysis in a role-playing format where the class assumes the role of the client.

Note on Grading: Group project grades will not be counted if other (individual) grades are not at least at the C level.

Final Exam (40%)
Examinations will cover multiple topics covered in class on Systems Analysis concepts and will be designed to evaluate students’ understanding of Systems analysis, requirements specification and systems modeling concepts.

Final grades will be assigned based on the grade scale presented below.

A >= 92% ; A- >= 90% ; B+ >= 87% ; B >= 82% ; B- >= 80% ; C+ >= 77% ; C = 72% ; C-> = 70% ; F < 60%.

Please note the exam dates. It takes considerable effort on my part to create another exam (i.e. makeup). Only in extreme emergency cases will makeup exams be given. Any absence needs to be documented. Likewise, if you miss classes on group presentations your individual grades will be affected. You will be graded on individual presentation skills and hence any presentation requires all members of the group to present in class.

Keep a record of all points possible and earned on each. This will make it easy for you to determine your exact grade status throughout the course. They may also be needed to resolve any discrepancies in your record. There is no possibility of “extra-credit” work in this class.
ASSIGNMENTS: DUE DATES AND FORMAT GUIDELINES
All assignments are due at the beginning of class. No late assignments will be accepted. Use software features to check spelling and grammar, however, DO NOT assume that the software will catch all errors. Please proofread your work carefully. Be sure to cover all assignment parts. Any assignment that requires rework will be assessed at least 10% penalty.

EXAMS:
In-class tests will be in the format of True/False with justification, multiple choice, short answer and problem-solving questions. Questions will be derived from the text, other distributed articles, class discussions, Web discussions, videos, and/or guest lectures. History indicates that there is a strong correlation between students reading their chapters prior to class discussion and effective test performance. Exams will assess your knowledge of concepts and terms. If a student is late for a test, they will be given only the time remaining to complete the exam.

CLASS EXPECTATIONS:
The last page of the syllabus explains what you can expect of me and what I expect of you. Please review this page carefully and discuss with me any questions or concerns you have. My goal is to provide a professional course where you may learn productively and effectively. Specific expectations follow:

1. You are expected to attend class. Professional behavior and attendance is expected in business! You are responsible for all information, announcements, and course material presented in class. ISM 620 is a pivotal class in the study of Information Systems and class sessions will rely heavily on examples and discussion not covered in the textbook. Furthermore, students are expected to be present at the beginning of class and remain in class for the entire period. The instructor should be notified with written and credible document before class for special circumstances.

2. The reading assignments for each class session are provided. You are expected to complete the readings before coming to class. Students should be prepared to discuss the contents of the readings in class.

3. Each UNCG student has been assigned a computer account and it is assumed that students know how to access and use email. Students are expected to check Email regularly and know how to use a blackboard. Requirements for assignments and various soft-copy documents may be distributed electronically via Blackboard.

4. Due dates for assignments will be announced in class and will be adhered to.

5. The ISOM Department has approved a policy NOT to post grades (on doors!!!). Furthermore, students are requested NOT to call the department office for grades. However, the Registrar's Office at UNCG has developed a phone-based system for the distribution of final grades.

6. Students are expected to follow the policies of the UNCG Academic Honor Code. Individual assignments are to be completed on an individual basis. Sharing of ideas is encouraged but the actual work that is submitted is to be the student's own. You must formally indicate on all deliverables that you have abided by the Academic Honor Code.
STATEMENT OF STUDENTS’ RIGHTS AND RESPONSIBILITIES:

As a student in my class you have explicit rights and responsibilities. Your full understanding and acceptance of the following rights and responsibilities can lead to more effective learning and more productive use of our class time.

You have the right to expect:

1. Your professor to be prepared for each class, to start class promptly at the designated time and to end class at the designated time.
2. Your professor to teach all scheduled classes or arrange for a qualified substitute if it is necessary to miss class because of illness or University approved commitments.
3. Clear statements of course expectations, policies, testing and grading practices.
4. Your professor to hold a reasonable number of office hours to discuss assignments or to assist you with course matters.
5. Knowledgeable assistance from your professor regarding assignments and course content.
6. Professional behaviors reflecting equitable treatment, ethical practices and respect for your rights.
7. Opportunities to challenge ideas and defend your beliefs in a professional manner.
8. To be challenged to grow both academically and professionally.
9. Information regarding career opportunities related to ISM and other business programs.
10. Your professor to abide by University policies.
11. Fairness and clarity in evaluation of your performance.
12. Adequate opportunity to appeal any perceived violations of the above rights.

You have specific responsibilities to:

1. Plan your study and work schedule appropriately to allow sufficient time to do quality class work. (Please review “Suggested Academic Workload Guidelines” for the Bryan School of Business and Economics published in the UNCG Undergraduate Bulletin.) I suggest you devote at least 3.0 hours per class period to this class.
2. Arrive at each class on time and prepared to discuss assigned readings and participate in discussions.
3. Complete assignments by due dates and submit quality work.
4. Understand and follow course policies as explained in class and in the syllabus.
5. Conduct yourself to grow both academically and professionally.
6. Work effectively and cooperatively as a team member on group projects if so assigned.
7. Practice ethical behaviors and display respect for rights of others.
8. Contact your instructor and discuss circumstances which may prevent acceptable performance and to make such contact on a timely basis.
9. Fully understand & abide by UNCG Academic Integrity Policy and other policies related to student conduct.

About your instructor:

I have earned a PhD in the Management Information Systems from the University of Texas at Austin and a Master of Accountancy from the Virginia Polytechnic Institute and State University. I majored in Education for my undergraduate degree at the National Cheng-Chi University, Taiwan. I have been on the faculty at the University of Pittsburgh (1987-1997) and the University of Illinois at Urbana-Champaign (1997-2005) and have been listed on the UIUC campus newspaper - Daily Illini ten times as an excellent teacher and nominated twice to receive the Alumnus teaching awards. I have recently honored for an “Excellence in the Entrepreneurship Classroom” award for case teaching at Syracuse University (September, 2007). I was selected as a Boeing Welliver Faculty Fellow in 2008 and spent the summer at Boeing learning and observing how IT was being applied to drive corporate strategies and support various business and production processes. My research focuses on the strategic management of IT and IT professionals as well as the impact of emerging technologies. I have published more than 50 articles in premier research journals, book chapters and International conferences and have received six best paper awards from international conferences and journals. I enjoy teaching and helping motivate people to finding their passions and achieve their goals. Please feel free to come to my office or email me with questions or suggestions for the course.
COURSE CONTENT AND PERSPECTIVES:

Oral & Written Communications Content:
Much of ISM 620 is spent looking at the theory of Analysis from a hands-on practitioner perspective. Students are expected to attend class prepared to think and communicate their thought process. Analysis questions frequently do not have only one correct answer so students should be prepared to defend the conclusions they reach! Students may be required to participate in web-based threaded discussions of questions or issues that are distributed by the instructor.

Effective written communication is stressed through written assignments, web discussions, e-mail communications, and short essays on tests and the final case study. Since this class teaches professional analysis behaviors, it is expected that all communications are prepared and presented professionally.

Technology Applications:
Discussion of information technology is a major component of the course and, although this class is not a programming class, technology is used as a tool in ISM 620. Knowledge of graphics diagramming software, a spreadsheet, and a word processor is assumed.

Ethical Perspectives:
The importance of ethical considerations in the management and use of technology by business will be addressed because systems analysts frequently must use their professional judgment to make difficult decisions. Specific ethical issues such as software piracy, confidentiality of data and databases, software licensing and copyright protection (among others) may be discussed. Other ethical issue discussions may relate to uses of the Internet, e-mail, threaded discussion groups, groupware, and other electronic tools.

Global Perspectives:
Although globalization of IS is an emerging topic, global aspects of business and technology are not (or only superficially) covered in this introduction course.

Demographic Diversity Perspectives:
Many information systems deal with and about an increasingly diverse workplace. Many exercises within analysis deal with breaking myths and get to core values and core “truths” about systems and the people that make them work. A by-product of this course is to learn how to triangulate and respect perspectives that may be different than our own.

Political, Social, Legal, Regulatory, and Environmental Perspectives:
Coverage of political, social, regulatory, and environmental perspectives is limited to the context of business issues in general and newsworthy developments that are both business-related and technology-related (which may be considerable this semester).
### Tentative Class Schedule, Topics and Assignment Due Date

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<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Readings</th>
<th>Due</th>
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<tbody>
<tr>
<td>ONE</td>
<td>Aug 28 Introduction to Systems Analysis.</td>
<td>Chapter 1</td>
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<tr>
<td>TWO</td>
<td>Sept. 4 SDLC, O-O Analysis and Design, Analysis Methodologies, Article Review Discussion,</td>
<td>Chapter 2 Article 1, 2 &amp; 3 Assignment #1 Article review</td>
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<tr>
<td>THREE</td>
<td>Sept 11 Systems Analysis, Requirements Specification, Information Gathering Techniques</td>
<td>Chapter 3 &amp; Chapter 4 Assignment #2 Project Management</td>
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<tr>
<td>FOUR</td>
<td>Sept 18 Modeling System Requirement Context Diagrams,</td>
<td>Chapter 5 Project Contact Group Contract</td>
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<tr>
<td>FIVE</td>
<td>Sept 25 Approaches to Requirement DFDs, Event Tables, Use-Case Modeling</td>
<td>Chapter 6 Article 4, 5 &amp; 6 Assignment #3 Article review</td>
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<tr>
<td>SIX</td>
<td>Oct 2 Object-Oriented Methodology and Analysis, Software Quality</td>
<td>Chapter 7 Assignment #4 Use Case</td>
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<tr>
<td>SEVEN</td>
<td>Oct 9 Project Presentations + Final Exam</td>
<td>Comprehensive Final Projects Final Exam</td>
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### ARTICLES TO BE REVIEWED/DISCUSSED:


