The University of North Carolina at Greensboro  
The Bryan School of Business and Economics  
Department of Information Systems and Operations Management  

ISM 674 - Systems Analysis and Design  

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Office Hours: Always available over eMail and by appointment.  
Course Web Site: The course is hosted on BlackBoard - http://blackboard.uncg.edu.  

Catalog Description:  
Study of systems analysis and structured methodologies to create conceptual blueprints of systems and their processes using systems design principles. Covers principles of software engineering, testing and software quality  

Course Description:  
Systems development concerns the mechanisms for creating conceptual blueprints of systems and their processes. The area of study encompasses technical, economic, and organizational elements. ISM 674 Systems Analysis and Design will help students understand and appreciate system and process concepts such as automation boundaries, feasibility assessments, performance measures, information modeling, process re-engineering, quality, and value-adding.  

ISM 674 takes a pragmatic approach to demonstrate the role of systems analysis and the many structured methodologies for its application. The course will incorporate a balanced consideration of object-oriented analysis and traditional structured analysis with due consideration to software engineering principles.  

OBJECTIVES:  
Students who successfully complete this course will be able to:  
- Discuss the nature of systems design and software engineering methodology.  
- Determine system requirements through various techniques for information gathering  
- Model system requirements using the OO approach and understand traditional approaches to systems modeling.  
- Communicate in precise modeling language business-relevant Information Systems requirements to both business managers and software developers  
- Evaluate alternatives for requirements, environment and implementation  
- Discuss the nature of systems quality assurance and software testing.  
- Develop detailed systems design and design documentation.
Relationship to Other Courses:
Systems Analysis comprises 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 database and 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 systems analysis and design.

Required Materials:

Other Readings:
- Satzinger, J. *Essential Systems Analysis,* (Will be posted on BlackBoard).

Emergencies:
If you encounter a situation that prevents you from fulfilling your responsibilities please do not delay in contacting me.

Performance Evaluation:
ISM674 course grades will be determined by the combination of assignments (2 to 3 assignments total), exams and one major semester-wide group project.

Please read the material listed under preparation prior to class.

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Note on Grading: The letter grade is based upon percent of points earned on each item and is based on a standard 10 point scale.
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. Assignments turned in after class starts will be counted as late and will be assessed a severe grading penalty. Papers not received within 24 hours of the due date will not be accepted and will be given a grade of 0. Professional business communication is an essential part of good systems analysis. Written assignments will be scrutinized for writing style, clarity and grammar. There is no room for stylistic, grammatical and clarity errors in graduate classes. Assignments and all submitted written work will have points deducted for these issues.

Use software features to check spelling and grammar, when appropriate. Do not assume that any software will catch all errors. Please proofread your work carefully. Be sure to cover all parts of questions posed to you in exams, assignments and projects. Any assignment that requires rework will be assessed at least 20% penalty.

Always use software to develop work turned in to you. Use MS Word or a suitable word processor for written work and MS Visio or suitable UML modeling software for Analysis and design documentation. Visio 2010 is available to students registered in the MSITM program through the department MSDNAA agreement. See www.uncg.edu/bae/isom/msdnaa.pdf for more details.

Exams:
Exams will be in the format of various types of questions including True/False with justification, multiple choice and short answer questions as well as problem solving to develop models. Questions will be derived from the text, other distributed articles and discussions. History indicates that there is a strong correlation between students reading their chapters and assigned reading materials prior to class discussion and effective test performance. Exams will assess your knowledge of concepts and their application. If a student is late for a test, they will be given only the time remaining to complete the exam.

The final exam is not cumulative per se. However, given the nature of the materials covered in the course, it is unavoidable that concepts covered before the mid-term will be included in the materials covered by the final exam.

Expectations:
1. You are responsible for all information, announcements, and course material presented in class. The instructor should be notified before class for special circumstances.
2. The reading assignments for each class session are indicated in this syllabus. You are expected to complete the readings before coming to class. Students should be prepared to discuss the assigned readings and participate in discussions.
3. Students are expected to check Email regularly. Requirements for assignments and various soft-copy documents may be distributed electronically.
4. Due dates for assignments will be announced in class and will be adhered to.
5. Work effectively and cooperatively as a team member on group projects if assigned. Please ensure that you report any cooperative or communicative issues to the instructor that hamper your effective group work.
6. Contact your instructor and discuss circumstances which may prevent acceptable performance and to make such contact on a timely basis.

**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.

University students conduct themselves in accordance with the highest standards of academic integrity. Academic misconduct includes all forms of cheating, such as illicit possession of examinations or examination materials, forgery, or plagiarism. Students will not make, borrow, or “share” copies of their assignments or files with other students. Plagiarism is presenting as one’s own work, that work which is, in whole or in part, the work of another person or persons without giving proper credit to the appropriate source. This includes submitting work done by another, as one’s own work. Helping one another is allowed, but copying, even electronically, is cheating. This practice is against the UNCG Honor Code and defeats the purpose of this course. No credit will be received for shared work, and other penalties may be imposed. UNCG’s Academic Integrity Policy (AIP) can be downloaded from [http://academicintegrity.uncg.edu/complete/](http://academicintegrity.uncg.edu/complete/).

**COURSE CONTENT and PERSPECTIVES**

**Oral & Written Communications Content:**

Much of ISM 674 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 project. 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 674. Knowledge of graphics software, a spreadsheet, and a word processor is assumed. Students will be introduced to modeling and CASE tools.

**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 specifically 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 respect diverse perspectives.

**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.