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

ISM 301 - Fall 2006  
SYSTEMS and PROCESS ANALYSIS  
TR 9.30 to 10.45 AM, Bryan 204

Instructor: Lakshmi S. Iyer, Ph.D.  
Office: Bryan Room 482

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E-mail: lsiyer@uncg.edu (E-mail is my preferred method for communication)

Office Hours: TR 11.00 AM to 12.15 pm, Others by appointment.

Weather Advisory: Please visit http://www.uncg.edu/psp/Weather/Weatheralert.htm or call 334-4400 for up-to-date info on weather related closings.

Prerequisites: C or better in ISM210; admission to ISOM Department or other approved program; 2.0 GPA.

Course Web Site: blackboard.uncg.edu (The course site is hosted on Black Board). Please choose the appropriate course after you login.

Available in the UNCG Bookstore. Other readings may be given in class or posted on BlackBoard

Other Readings:


In addition student assignments could include readings from journals such as: Harvard Business Review, Fortune, Business Week, Journal of MIS, The Wall Street Journal and CACM.

Several Computer Based Training courses are available through ElementK (http://it.uncg.edu/elementk/ ) for UNCG students (hopefully you will be making use of this excellent opportunity).

Course Description: Systems and process analysis concerns the mechanisms for creating conceptual blueprints of systems and their processes. The area of study encompasses technical, economic, social, organizational, and political elements. The ISM 301 Systems and Process Analysis course 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. 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."
ISM 301 takes a pragmatic approach to demonstrate the role of systems analysis and the many structured methodologies for its application. Many examples will be drawn from real-world business situations. The course will incorporate a balanced consideration of traditional methodologies such as structured analysis as well as 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.

Relationship to Other Coursework:
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. IS majors will meet the boundary of topics covered in their database class (e.g., ISM 318 and/or Access) and topics covered in programming classes (e.g., ISM 240, 310, and electives). Others will link topics within this class to courses in business processes (e.g., ISM 280), operations management, economics, and statistics (see ISM 303, 304, and 360). ISM 301 prepares students for the capstone project courses in the ISOM department (ISM432 and ISM 452). Whatever your background or interest in IS, remember that only when all parties recognize, understand, and manage competing viewpoints do successful projects result.

OBJECTIVES: ISM 301 should develop the following knowledge and skill sets:

<table>
<thead>
<tr>
<th>KNOWLEDGE SETS</th>
<th>SKILLS SETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Business Systems and Strategic Information Systems</td>
<td>1. Produce Process and Data Models</td>
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<tr>
<td>2. Automating versus Informating</td>
<td>2. Project Management (Students may use Microsoft Project for assignments)</td>
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<tr>
<td>4. Request for Proposals, Procurement Processes</td>
<td>4. Produce Data Models</td>
</tr>
<tr>
<td>5. Preparation for Systems Design</td>
<td>5. Produce USE case diagrams</td>
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<tr>
<td>6. Requirements Analysis</td>
<td>6. Produce Structural models (CRC cards and Class diagrams)</td>
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<td>7. The Nature of Problem-Solving</td>
<td>7. Evaluation of systems</td>
</tr>
<tr>
<td>8. Analysis Methodologies</td>
<td>8. Presentation Skills (verbal and written)</td>
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</tbody>
</table>

Instructional Methodology: Lecture, class discussion, videos, external speakers, and web-based content.

Performance Evaluation: ISM301 course grades will be determined by the combination of individual assignments, quizzes, in-class tests, article presentation and one major group project.
Please read the material listed under preparation prior to class. This will help improve class discussion. Also, the quiz for any class period will include preparation material. NO MAKEUP quizzes will be given at any condition. I will count four quizzes so that you have a chance to drop the lowest quiz grade if more than four quizzes are given. Quizzes may not be announced in advance.

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 (article as well as project 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.

In-class Exam 1............................................................125 points
In-class Exam 2 ...........................................................125 points
Pop Quizzes (4 Best) .................................................. 80 points
Individual Assignments .............................................100 points
Individual Journal log ................................................. 10 points
Class Activity ............................................................. 20 points
Group Project .............................................................140 points
Total.................................................................600 total points

Note on Grading: Group project grades will not be counted if other (individual) grades are not at least at the C level. The letter grade is based upon percent of points earned on each item and is as follows:
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. Use software features to check spelling and grammar, when appropriate. 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 reword will be assessed at least 20% penalty.

Examinations:
In-class tests will be in the format of True/False with justification, multiple choice, and short answer 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.

Academic Policies: All students are required to follow the provisions of the UNCG Academic Integrity Policy in completing course work. If you do not know provisions of the Honor Policy, make time to study it.

Emergencies: Hopefully, none of you will encounter an emergency this semester. However, if you encounter a situation that prevents you from fulfilling your responsibilities please do not delay in contacting me. If urgent, you may call me at home 286-9933. When encountering inclement conditions, use your best judgement 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.

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 is expected -- and attendance is expected in business! You are responsible for all information, announcements, and course material presented in class. The Undergraduate Bulletin of indicates that you may not receive credit for classes that you fail to attend regularly (I follow the Bulletin’s policy of three missed classes in a row results in removal from the course)! More importantly, ISM 301 is a pivotal class in the study of Information Systems and class sessions will rely heavily on real-life 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 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 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 pine mail. Students are expected to check Email regularly and know how to use a browser. Requirements for assignments and various soft-copy documents may be distributed electronically.

4. Due dates for assignments are in the schedule and will be adhered to. Any changes will be announced in class.

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.

Study Groups: I strongly recommend that students form study groups of about 3 or 4 persons early in the semester. While in your groups quiz each other to explain and give examples of topics we discuss in class. Some of the material we cover will seem "obvious" but, in fact, is much more complicated than it appears. Form groups where each person is a full participant and contributor! Get to know class members NOW so you can form good groups.

COURSE CONTENT and PERSPECTIVES (AACSB)

Oral & Written Communications Content: Much of ISM 301 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 301. Knowledge of graphical software, a spreadsheet, and a word processor is assumed. Students will be introduced to: a workgroup communication tool, a project management system, and a CASE tool.

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).
## Course Calendar:
This course syllabus provides a general plan for the course; deviations may be necessary. Topics, assignments, and due dates are subject to change. **Additional articles will be provided in class and updated on BB.**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Readings (prior to class)</th>
<th>Due at beginning of class</th>
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<tbody>
<tr>
<td>8/15, T</td>
<td>Introduction; Black Board, Course Project, Group Formation</td>
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<tr>
<td>8/17, R</td>
<td>SDLC, Job Search, Skills for Systems Analysts</td>
<td>Chapter 1, The World of the Modern Systems Analyst, End of Chapter questions and Case</td>
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</tr>
<tr>
<td>8/22, T</td>
<td>Project Initiation</td>
<td>Chapter 2, Approaches to System Development</td>
<td></td>
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<tr>
<td>8/24, R</td>
<td></td>
<td>Chapter 2, Spiral Model article, End of Chapter questions and Case</td>
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<tr>
<td>8/29, T</td>
<td>Project Management</td>
<td>Chapter 3, The Analyst as a Project Manager</td>
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<tr>
<td>8/31, T</td>
<td>Systems Analysis, Requirements Gathering</td>
<td>Chapter 3, End of Chapter questions and Case</td>
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<tr>
<td>9/5, T</td>
<td>Essential Systems Analysis (ESA)</td>
<td>Chapter 4, Investigating System Requirements, End of Chapter questions and Case</td>
<td></td>
</tr>
<tr>
<td>9/7, R</td>
<td>Essential Systems Analysis (ESA)</td>
<td>Chapter 4, End of Chapter questions and Case</td>
<td></td>
</tr>
<tr>
<td>9/12, T</td>
<td>Traditional Process Modeling</td>
<td>Chapter 5, Modeling System Requirements</td>
<td>Assignment 2</td>
</tr>
<tr>
<td>9/14, R</td>
<td>Essential Systems Analysis (ESA)</td>
<td>Handouts, Chapter 5, End of Chapter questions and Case</td>
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<tr>
<td>9/19, T</td>
<td></td>
<td>Group Work Time</td>
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<tr>
<td>9/21, R</td>
<td>DFD Diagram</td>
<td>Chapter 6, Modeling System Requirements</td>
<td>Draft of Del 1 up to Part V must be complete – 50% points apply to this</td>
</tr>
<tr>
<td>9/26 T  9/28, R</td>
<td>DFD Diagram</td>
<td>Handouts, Review for exam 1</td>
<td></td>
</tr>
<tr>
<td>10/3, T</td>
<td></td>
<td>Chapter 6, End of Chapter questions and case</td>
<td>Assignment 3</td>
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<tr>
<td>10/5, R</td>
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<tr>
<td>10/10, T</td>
<td>Fall Break – No Classes</td>
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<tr>
<td>10/12, R</td>
<td>EXAM 1</td>
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<td>10/14 Sa</td>
<td>AITP Website Build Off Challenge</td>
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<tr>
<td>10/17 - T  10/19, R</td>
<td>Group Presentation 1 (4 groups)</td>
<td>Deliverable 1, Peer Eval 1 due 10/18 by 2 pm</td>
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<tr>
<td>10/24- 10/26</td>
<td>Use Case Modeling/ Domain Modeling</td>
<td>Group Presentation 2 (3 groups)</td>
<td>Deliverable 1, Peer Eval 1 due 10/20 by 2 pm</td>
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<tr>
<td>10/31 T</td>
<td>Domain Modeling</td>
<td>Chapter 7, Case Diagram</td>
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<tr>
<td>11/2, R</td>
<td></td>
<td>Chapter 7 Case Diagram</td>
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<tr>
<td>11/7- 11/9</td>
<td>OO approach</td>
<td>Chapter 7, Class Diagram</td>
<td></td>
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<tr>
<td>11/14- 11/16</td>
<td>Activity Diagrams</td>
<td>Chapter 7, Activity Diagrams End of Chapter</td>
<td></td>
</tr>
<tr>
<td>11/21, T</td>
<td>Evaluating alternatives</td>
<td>Chapter 8</td>
<td>Assignment 4</td>
</tr>
<tr>
<td>11/23, R</td>
<td>Thanksgiving Break – No Classes</td>
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<tr>
<td>11/27, T</td>
<td></td>
<td>Course Review</td>
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<tr>
<td>11/29, R</td>
<td>EXAM 2 - (Comprehensive Exam, 20% of the material will be on material covered for Exam 1)</td>
<td>Deliverable 2, Peer Eval 2, Signoff Sheet, and Ind. Journal log – due 10 am.</td>
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<tr>
<td>Dec 7th, R</td>
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<td>Thornal:' Deliverable 2, Peer Eval 2, Signoff Sheet, and Ind. Journal log – due 10 am.</td>
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</table>
Please Review the following end of chapter questions for each of the chapters listed below.

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Review Questions</th>
<th>Thinking Critically</th>
<th>Experiential Exercise</th>
<th>Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2, 3, 6, 8 and 10</td>
<td>3, 6</td>
<td>1</td>
<td>RMO</td>
</tr>
<tr>
<td>2</td>
<td>3, 8, 11, 15, 22</td>
<td>5, 10</td>
<td>2</td>
<td>RMO</td>
</tr>
<tr>
<td>3</td>
<td>1, 2, 5, 6, 10, 16</td>
<td>2, 5, 6</td>
<td>1, 6</td>
<td>RMO</td>
</tr>
<tr>
<td>4</td>
<td>3, 5, 7, 11, 14</td>
<td>1, 3, 11</td>
<td>1, 5</td>
<td>RMO</td>
</tr>
<tr>
<td>5</td>
<td>4, 6, 7, 8, 9, 15-23</td>
<td>3, 7, 9, 15</td>
<td>1, 2</td>
<td>State Patrol Ticketing System, RMO</td>
</tr>
<tr>
<td>6</td>
<td>1, 2, 3, 7, 8, 12</td>
<td>4, 6</td>
<td>1</td>
<td>State Patrol Ticketing System, RMO</td>
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<tr>
<td>7</td>
<td>1, 2, 4, 5, 7, 9, 10, 13</td>
<td>1, 3</td>
<td>1, 2</td>
<td>State Patrol Ticketing System, RMO</td>
</tr>
<tr>
<td>8</td>
<td>1, 2, 6, 7, 8, 9, 12</td>
<td>1, 2, 3, 5, 8</td>
<td>6</td>
<td>RMO</td>
</tr>
</tbody>
</table>

Important Dates for Fall 2006: [http://www.uncg.edu/reg/Calendar/acaCal/fa06.html](http://www.uncg.edu/reg/Calendar/acaCal/fa06.html)

**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.