

## ISM280, BUSINESS PROCESSES AND INFORMATION TECHNOLOGY

Fall, 2001, 2:00-3:15, MW, Bryan 105

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### Required Materials:

1. **Business Processes and Information Technology**, August 2001 edition (bookstore)
2. Subscription to **Business Week** (forms available in class) Note: Reading/study of articles in Business Week is as important as studying text materials.

### Description:

A description and analysis of major business functions, organizational structures, activities and processes and how information technology can be employed to improve processes and business performance. Students will analyze business operations, learn about new technology and learn how businesses are applying information technology to remain competitive by improving processes. Prerequisites: Acc 201, Eco 201, Ism 110  
Note: ISM majors must earn at least a AC@ in 280 to continue as an ISM major.

### Overall Course Objectives:

1. Develop a clear understanding of business functions and activities and how they relate to critical business processes and subprocesses
2. Understand problems caused by lack of integration among business functions and activities and learn how a Aprocess@ perspective can help solve such problems
3. Learn how to detail, analyze and then prepare a graphic map of a business process
4. Understand the development of information technology and how changing technology affects business operations--both nationally and internationally
5. Evaluate how selected technologies can be applied to business activities and processes
6. Learn how to assess ways to improve business processes
7. Understand the interrelatedness of overall business operations and appreciate why operations need to be performed in an integrated manner
8. Learn how to identify causes of poor performance
9. Understand the development of office technology, office work and barriers to and techniques for improving white-collar employee productivity
10. Develop an understanding of new and emerging technology and how that technology might be used to improve business operations.

### Performance Evaluation:

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 Integrity Policy make time to study it. **I enforce the policy diligently and it may be covered on a quiz.** Note: exams will be returned for review but will be collected after the review class and kept by the instructor. **NOTE: Do NOT remove any exams from the classroom--I consider this a violation of the integrity policy and grounds for granting an "F" for the course!** During exam review, make notes of topics you missed. **The final exam is comprehensive!**

Tentatively, it is planned that course grades will be based upon: two regular exams (about 100 points each), several unannounced quizzes (5-10 points each), three assignments (20, 30, and 30 points respectively), and a comprehensive final exam (about 130-150 points). There will be approximately 500 total points. **The grade scale below is applied to the total points possible...so, all points are equal!** For example, five quiz points carry the same weight as five points on a test or project.

93-100%=A	90-93%=A-	87-89%=B+	83-86%=B
80-82%=B-	77-79%=C+	73-76%=C	70-72%=C-
67-69%=D+	63-66%=D	60-62%=D-	Below 60=F

**Keep a record of all points possible and points you earn on each item. This will make it easy for you to determine your exact grade status any time during the course.**

Electronic Mail and Computer Accounts: **Check several times each week for email messages from me. We will be using Blackboard (BB) for email and I will post announcements, provide handouts and other information on BB. If you wish to use an email address OTHER than the UNCG address be sure to send me email with your preferred email address.**

If you don't already have a computer account please stop by the IRC Office (Bryan 235) to obtain a sheet explaining how you can establish an account. You will be able to keep the same account during your study at UNCG. I will send you assignments and messages by e-mail and you will have computer assignments so an account is essential. **Use my email address at the top of page one of this syllabus when sending me messages.**

#### Attendance and Learning:

**Class attendance is expected...as attendance is expected in business! You may miss only three classes without penalty. A fourth and fifth absence will cost you 10 points EACH. If you miss a 6<sup>th</sup> class you will be DROPPED from the class.** Much of what we will do in this class will involve student discussion. You cannot participate and learn from this discussion if you do not attend. For example, the most important aspects of Business Week articles are always discussed in class. Plan to arrive on time and stay the entire period. You will be responsible for any information missed during absences so establish contacts with other students in class to get any missed information. Do NOT call or email me to ask if we covered anything important! **The last page of this syllabus provides information about the different levels of learning. Review this information to see how you can improve learning.**

#### Expectations:

A later page in this packet 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 course where you may learn productively and effectively. **I invite your suggestions for helping me achieve that goal.**

#### Office Hours:

I will plan to be available before and after class every day (unless I have meetings). I will also be available at other times as you need to see me. Please call 334-5666 or e-mail me if you wish to set a specific appointment.

#### 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 282-3888.

#### Specific Assignments

Follow the format guidelines provided in the next section for preparation of projects. The three projects will equal about 20% of your course grade and each will give you an opportunity to learn much more about business, technology and business processes. During class I will describe each

assignment in more detail. **If you must miss a class session, be sure to contact a classmate to get assignment details.**

Assignments: Due dates and format guidelines

All assignments are **due at the beginning of class (2:00 p.m.)**. Assignments turned in after class starts will be counted as **late** and will be assessed a grading penalty. Assignments submitted after the due date **may not be accepted** but, if they are, there will be a minimum of a 10% reduction for each day late. Each assignment must be printed (use a PC, word processor and laser printer). Use software features to check spelling and grammar. However, **DO NOT** assume that the software will catch all errors. Please proofread your work carefully. Also, please use single spacing, 12 point pitch and one inch side margins. **Spelling, sentence structure and grammar errors will reduce your grade.** Be sure to cover all assignment parts. Use headings for each part of the reports (parts can be set up by the lists I provide for each project).

Please use the following memo format for all printed assignments. **Do not** place papers in any kind of folder or binder. Simply staple pages in the upper left corner.

Date (current date)

TO: Dr. Hershey

FROM: (your name)

SUBJECT: (title of assignment)

Assignment 1

**Analysis of Business Uses of Internet (20 points);** maximum of three pages excluding attachments

Select three organizations from the same industry (such as health care, retailing, financial, etc.) that are using the Internet to market their products or services. I strongly suggest you select firms for which you might wish to work upon graduation. **Review ALL PARTS of the web site...drill down under all icons or headings!**

- a. Describe the kinds of information provided by each company. Provide the Internet address for each company.
- b. Explain which company provides the most useful information to consumers? To potential employees? Explain why compared to others.
- c. Which company has the most attractive pages and layout? Explain why compared to others.
- d. Which company provided the easiest interface for users? What features are provided? Can you order items on line? Are other services or values offered? Compare to others.
- e. How could each company improve its Internet pages? Provide specific suggestions for each.

Assignment 2 (A group project) Note: My APPROVAL is required for both process and firm selection.

**Business Process Listing (30 points);** maximum of 6 pages excluding attachments

Select a company with which you are familiar and where you can collect information. **Do not**

**select a restaurant or fast food firm.** Family, friends and others may be able to suggest a firm. It may be a division of a firm but **MUST** have at least **30 full time employees at that location.**

1. Briefly describe the firm you have selected--its business, main activities, size in terms of sales, number of employees and the unit/location you are describing. Describe the key functions in the firm and list titles of the head of each function.
2. Then, describe 4-5 "key" business processes. Describe the purpose and key activities involved in each process; explain how the process affects customers. One paragraph for each process should be sufficient.
3. Select and describe one primary process or subprocess in detail.
  - a. Prepare a numbered list of all steps involved in completing the process. I suggest the following numbering scheme: A, 1, a, (1), (a)
  - b. For each step, identify the department and/or employee involved in performing the step. (Follow guidelines in the text.)
  - c. Review your step listing to be sure all possible actions are covered. Also include in your list substeps of what occurs if problems arise. For example, if a step involves checking a customer's credit what actions are taken if the customer has bad credit? Or, if a step involves checking the quality of a product or action, what is done when an error is found?

**Assignment #3. (same group as used in assignment 2--attach your graded assignment #2)**

**Business Process Diagramming and Analysis (30 points);** maximum of 6 pages in addition to assignment #2

1. Based upon your step listing and revisions from Assignment 2, prepare a process diagram (I suggest you use Visio and the tutorial at the end of the text) following the format shown on page 33 in the text. **Note: Make changes as needed in your step listing based upon the feedback I provide in evaluating Assignment 2 BEFORE you prepare the PD.** Be sure to include ALL activities and steps. Every step in the Astep listing@ must be shown on the process diagram. Insert step numbers on the diagram to match the step listing.
2. Evaluate the performance of the process (efficiency, quality, effectiveness); apply the six analysis questions; look for delays, unnecessary handoffs, steps or actions that would reduce customer service, poor or insufficient applications of technology and so forth.
3. Suggest specific ways the process could be improved.

**NOTE: In class I will review examples of prior projects showing a detailed step listing and process diagram...much more detailed than the simple example provided in the text.**

Ways to Earn a Good Grade in 280

**Please remember, the quizzes may not be announced, will be based upon readings assigned for that day, CANNOT be made up and are designed to help you improve your preparation for class discussions. If you do not STUDY the assigned materials BEFORE class it is highly unlikely you will pass the quizzes. It is clear from many past classes that students who do well on quizzes also do much better on the exams! And, it is clear that those who do not prepare for class either fail or earn very low grades.**

**IMPORTANT:** We will cover many technical terms throughout the class and you will encounter many terms in your reading of Business Week items. If you come across information technology terms you do not understand I suggest you explore the web site: **whatis.com** You may wish to set a bookmark for this site. If the term is not explained there please be sure to ask for clarification in class. Also, **google.com** is the top rated search engine and is useful for finding information about many topics and web addresses of firms.

I also recommend that you keep a **log of all new technology terms** you encounter in your reading. Define what the technology does and make notes about its possible benefits or uses in business.

### Study Groups/Teams

I strongly recommend that students form study groups of 4-5 persons early in the semester. This may become your team for Assignments 2 and 3. Such a group will also be useful in preparing for exams and quizzes. In your group, 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 complex than it appears. Select groups where each person is a full participant and contributor! **Get to know class members NOW so you can form groups of persons who will work well together.** You might call a team meeting to see who shows up...who participates. You also may wish to sit together in class for in-class discussion work.

### Business Week (BW) Articles

BW articles often cover many different points and you may need practice in identifying those ideas which are most relevant to ISM280. Always review any boxes or inserts in the article before reading the full article. After reading each article, make a list of 3-5 key ideas relevant to information technology, business operations and business processes. I may use BB to send guidelines of key ideas to find in selected BW articles.

## TENTATIVE CLASS SCHEDULE

I expect the following schedule will be close to what we achieve. However, it may be necessary to spend more time on some topics because of special BW issues, which could change our plans. **I will provide specific reading assignments and any changes of dates for assignments and tests during class periods and will likely post such changes on BB.**

### August 20 to September 10

Introduction to course topics and discussion of requirements. Assignment: **study this syllabus and the UNCG Academic Integrity Policy; read the first issue of Business Week; begin study of pages 1-23 of text**

Introduction to business processes as contrasted to business functions

Overview of business structures, activities and organization

Adding customer value through business processes; video on BP;

Study of Business Week (BW) issues

Discussion of how to complete Assignment #1

**Questions to answer, study items: (Note: the study questions following each course topic do NOT include content from Business Week articles.)**

1. Do not for profit organizations have need for processes? For BPR? Why?
2. How have the roles of businesses changed during the past 20 years?
3. Give an example of having the proper mix of goods and services. How does this vary

- for two specific businesses (other than the ones mentioned in the text)?
4. Give examples of how customer expectations have changed.
  5. What are examples of 5 common business activities?
  6. How does customer identification differ from customer contact? How has technology enhanced each of these activities?
  7. How many different persons or units (identify each) might be involved in processing an order?
  8. What is electronic commerce? Give 5 examples of different applications.
  9. How has the sales process changed as a result of technology?
  10. What is the difference between an intermediate product and an end product? Examples?
  11. Why has there been a decline in vertical integration?
  12. Examples of different kinds of inventory a firm might have? Pros/cons of having inventory?
  13. Examples of "build to inventory" and "build to order"? Examples of who must build to inventory?
  14. What is the sales model that Dell uses? How does it differ from traditional models?
  15. What are different ways that products and services can be "delivered"? How have customer expectations changed regarding "delivery"?
  16. Why is working capital or cash flow so important to a business? Examples?
  17. What are major business activities at UNCG? What are examples of processes at UNCG?
  18. What is a target market? Example of a niche marketer? A commodity marketer?
  19. What are ways to learn customer requirements? How can technology help? How is the internet used in targeting customers?
  20. Explain several factors that firms can focus upon to gain a competitive advantage...give examples of firms and their specific focus.
  21. Why is it important to retain good customers...from a cost/profit perspective? What are specific consequences of losing a customer as a result of dissatisfaction?
  22. What is the value chain for Walmart? For UNCG? For a life insurance company?
  23. Why is it so difficult to determine what customers value? How can technology help?
  24. What are examples of business to business dealings...how can technology help?
  25. Explain how value chain analysis relates to business processes?
  26. What are examples of supplier to business relationships? How can technology affect suppliers?
  27. Explain at least four characteristics of today's business environment. What future changes might be expected?
  28. What is an example of an anticipated decision? A programmed decision? An ad hoc decision? A structured business problem? Semi and unstructured business problem? How can technology help in each.
  29. What are the main steps in problem solving? Explain the relationships among the steps.

### September 12 to September 26

Assignment #1 due on **September 19**

Continue with process definitions, analysis and improvement discussions; video

Discussion of process analysis team projects; projects due on **October 29 and November 19**

Study pp. 24-39 of text; study BW issues

**First exam on September 26**-a variety of T-F defense, multiple choice and short-answer

essay

**Questions and Study Items:**

1. What is an example of a business process? Of a business function? Of each at UNCG?
2. How does a process differ from a typical function in a business?
3. Why are most businesses organized around functions rather than processes?
4. What causes suboptimization among functions in a firm?
5. What are the different types/levels of processes...give examples of each. At UNCG?
6. Is "sales" a high level process or a subprocess? Explain.
7. What functional units would likely be involved in order fulfillment if you ordered a new computer from Dell? A special order automobile from a dealer?
8. What is the difference between a primary and supporting process? Examples at UNCG?
9. Give examples of other subprocesses and procedures at UNCG.
10. Why is managing a process so difficult?
11. What are reasons that processes may not be improved even when they are not working well?
12. Explain the specific steps that should be followed in process analysis. What is the most important step? Why?
13. Who/what should be included in the process analysis? Who should be on the analysis team? Why?
14. What does it mean to "reengineer" a process? What are the risks and threats?
15. What is the value of completing a process step listing? A process diagram? Uses of a PD?
16. If you know you need to change your processes what is the value in documenting and analyzing current processes?
17. A good business process should have what characteristics? What are indicators of poorly performing processes?
18. What questions should be asked when evaluating a process? What is the purpose for asking and answering each question? Which question is most important...explain.
19. How did Ford improve operations in their accounts payable department? What technology was used?
20. What are the key barriers and problems encountered in process improvement and reengineering efforts?

October 1 to October 31

Applying processes to ERP and SAP; ERP systems; video

Types of IS and IT; appropriate uses

Database systems, data warehouses

Decision making and uses of information technology

Electronic commerce

Study pp.40-67 in text; issues of BW

**Assignment #2 due on October 29**

**Second exam on October 31**

**Questions and Study Areas:**

1. How does an ERP system differ from other types of information systems...such as an inventory or a payroll system?
2. Why are firms so interested in ERP systems today? Why didn't they have such systems 15 years ago?

3. How does a decision to use an ERP affect operations in a firm? What changes in operations might be required?
4. Explore information at the web site for SAP. What kinds of products do they offer? Go to web sites for PeopleSoft and Oracle. What products do they offer?
5. What are the key features of an ERP?
6. Why might an ERP be good for a firm that has many locations internationally?
7. What does it mean to "configure SAP software to fit your company"?
8. Why does SAP require such massive data storage capabilities?
9. Identify at least five examples of modules provided by SAP.
10. If your firm uses SAP and adopts several modules what must be done by your firm to make the software work well?
11. What is CRM? How can technology help with CRM? What is B2B? B2C?
12. Give an example of the difference between data and information. Why might data be considered a valuable asset for a firm?
13. Give examples of when transaction processing systems would be used in business. At UNCG.
14. Why do some banks charge customers for calling tellers? Or, why might airlines give a discount if you purchase a ticket electronically?
15. Why might firms purchase data? What might be good sources?
16. What are common ways to evaluate TPS? What criteria would you use to evaluate systems at UNCG?
17. How does an MIS differ from a TPS? What is a query system? A DSS? What use do you make of any of these systems at UNCG?
18. Today, the computer system is really the network...what does this mean? How do you rely upon networks in your daily life?
19. Explain three types of obsolescence related to computing.
20. What is the role of a "server"? How is client/server computing used on campus? What are the pros and cons?
21. What is 3 tier computing? What is an advantage of this architecture? Possible problems?
22. Explain the different types of software used in computing. What are you using in the labs?
23. What are trends in software development and usage? What might be future developments?
24. What are trends in hardware development? Overall computing? For the future?
25. Data storage is essential for every system. What are key criteria in storing data? Ways of accessing data?
26. Give examples of structured and unstructured data files. Why is designing the data file or database such a critical issue?
27. What is a DBMS? The relational database model? How do you use databases at UNCG? Examples of databases on the Internet? How might dbases be important to you in the job you want to pursue upon graduation? What types of dbase do you think Google uses?
28. How does a data warehouse differ from a dbase? What are some examples of DWs?
29. What is data mining? How does it differ from a database search or query?

Impacts of technology on business operations

Strategic uses of IT

New Developments in IS/IT

Managing IT projects, approaches to systems development, user issues

Office automation and white-collar productivity

**Assignment 3 due on November 19**

**Study text pp. 67-104; BW readings**

**Questions and Study Areas:**

1. Explain how the basic telephone system is designed to transmit a message from Greensboro to Chicago. How might it differ if you are communicating between those two points by PC?
2. What are types of wireless media...their pros and cons?
3. What role does the FCC play in wireless media?
4. What are some results of the 1996 Telecom Act? What might you expect in the future?
5. Explain the difference between a LAN and a WAN. Applications at UNCG?
6. Pros and cons of: DSL, ISDN, cable modem, satellite?
7. What are important decisions that firms must make about communications services they use?
8. Explain trends in telecom; what might we expect for the future? How might these trends affect today's business practices? University operations and services?
9. Compare/contrast Internet, Intranet and Extranet...examples of their use in business?
10. What is a firewall? Its purpose?
11. What security and privacy issues about the internet should a firm consider? What concerns do you have as a consumer?
12. Describe how computer systems and networks have influenced inventory management, consumer purchases, supplier to business relationships and consumer to business interactions.
13. Give specific examples of how computer technology has changed manufacturing.
14. How does electronic commerce affect processes in a firm? What are some example of firms that have done poorly in EC because processes didn't change?
15. Assume the technology is available. Describe how you would like to use technology in your life for: pleasure, work, study. What concerns might you have?
16. Office workers are basically knowledge workers...as most of you will be. What tools are available to help workers process information? To access knowledge? What problems might you encounter?
17. What is a virtual office? What do you see as pros and cons?
18. Why is office productivity so hard to measure? How would you measure it?
19. What are examples of situations where collaborative work would be involved in your expected job upon graduation? What technology can help with this?
20. What is the concept of artificial intelligence? What are the components of an expert system? Examples of where expert systems could be helpful?
21. How does knowledge management differ from databases and data warehouses? Why is KM so complex? Why is it important to a firm?
22. Many of you will be involved in some aspect of managing IT projects...perhaps as users, or as managers or even as project leaders. Identify critical issues related to IT project selection and management.
23. Why do so many IT projects take longer and cost more than estimated? What steps can be taken to improve IT project management?
24. What is involved in developing a new IS? What are the steps or stages? What is

- perhaps the most important step or stage...why? Which step is likely to be most challenging?
25. Explain the different types of feasibility that might be raised in looking at new systems.
  26. Discuss several considerations regarding systems analysis and systems design. How do these factors relate to outsourcing decisions? Pros/cons of outsourcing? Guides for effective outsourcing? Types of things that might be outsourced?
  27. What is an RFP...values? An RFI...values? An ESP?
  28. Methods of system conversion...pros and cons of each? Values of prototyping? Pros/cons of buying a system versus building your own?
  29. Explain important activities in managing IT services. Why is managing IT so difficult?
  30. Assess pros and cons of different approaches to training employees.
  31. What are types of documentation in IT? Explain why documentation is so important.
  32. What kinds of activities are typically included in "systems maintenance"? Why does maintenance consume so much time of IT professionals? How could maintenance be reduced?
  33. What are typical criteria used to assess the performance of IT? Others you would suggest?
  34. What is an example of a strategic IS? What makes it strategic?

**Final Exam on Monday, December 17, noon to 3 p.m.**

\*\*\*\*\* November 3-16: Advising and preregistration for summer and fall terms.

**Additional Topics and Emphases of ISM 280**

As part of providing an integrative learning experience with other courses you will take in the Bryan School I will intentionally emphasize certain general business concepts, perspectives and skills. Please review the following to see what you can expect:

1. Ethical issues will be addressed as they relate to computing practices, to legal use of software, to appropriate uses of databases and issues surrounding the use of the Internet.
2. Business is global. Understanding global business is an overriding theme of the Bryan School. You can expect we will cover global issues each week as we discuss articles in Business Week.
3. Understanding political, social, legal, regulatory and environmental issues is important to becoming a business professional. Our coverage in 280 is likely to be limited except for legal aspects related to technology development and utilization. For example, we will consider implications of the 1996 Telecommunications Act and legal aspects of Internet use.
4. Knowing about technology and its best uses is the core of this course. You are encouraged to consider how technology can be best applied to your area of specialized study.
5. Ensuring demographic diversity is important to the success of business. We live and work in a socially and culturally diverse society. When appropriate, we will address such issues.
6. Being able to write and speak effectively is essential for continued success. I expect you to write correctly and effectively. Your projects will be graded on the basis of both content and writing. Follow the guidelines provided in this syllabus. If you have writing deficiencies make immediate arrangements to improve your skills and to seek assistance from campus

offices. Although you will not make formal oral presentations in this class you are encouraged to practice speaking clearly. If I detect particular problems I will share these with you individually.

7. You will use a computer to prepare your three written projects. I also invite you to explore additional uses of our systems and to sample the programs available through CBT modules. You can access these modules at: <http://cwtweb.uncg.edu/cwtweb/>

8. Learning to research problems and finding relevant information is essential for good decision making. You will be expected to use the Internet extensively for one project and are also likely to use various search engines to supplement class discussions.

### **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 time together.**

**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 and student performance.**
- 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 class 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 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 4-6 hours per week 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. Commit 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. Contact me by phone if there is an emergency...do so promptly.
9. Fully understand and abide by the UNCG Academic Integrity Policy and other University policies relating to student conduct.
10. Report observed violations of the UNCG Academic Integrity Policy.

### Understanding the Levels of Learning

Many years ago, long before most of you arrived on this earth, a psychologist developed a taxonomy (model) to describe the different levels of learning. This model is useful since it will help you understand better how well you really know something. Below I present basic ideas from Bloom's Taxonomy with examples of each learning level as applied to content in ISM280. I hope you will use this as you study material in 280 and as you prepare for tests. On my exams, I try to develop questions that assess your comprehension, your ability to apply and analyze and, to a lesser extent, synthesize information and concepts we discuss. Simply knowing facts will seldom be sufficient to do well on 280 exams. Specifically, memorizing facts or portions of the text is not enough!

The model below moves from the simplest level of learning to the most complex. Additionally, the model states that the lowest level must be mastered before a learner can move to the next level. For example, we must have a thorough understanding of facts (knowledge) before we can interpret the meaning of those facts (comprehension).

#### Level of Learning

#### Skills Demonstrated and Examples

Knowledge

Recall facts, ideas, topics, terminology, definitions  
280: Define a function; define a process; describe components of a value chain

Comprehension

Understand information; interpret the meaning of data; compare and contrast ideas/facts; arrange facts in meaningful order  
280: Compare the pros and cons of functional management versus

**process management. Describe which parts of the value chain are most difficult to manage.**

### **Application**

**Solve problems; use facts/knowledge in a specific situation; use information in a new situation**

**280: Use the process diagram tools and knowledge of a given process to prepare a process diagram. Develop a summary of critical factors that must be managed in the value chain for a specific firm.**

### **Analysis**

**Organize components into a meaningful structure; identify key causes of a problem; explain rationale for selecting an alternative solution; compare, contrast, organize, separate, infer, classify.**

**280: Review a process diagram and identify and explain the major problem areas in the process and suggest improvements. Analyze a specific value chain and suggest ways to change operations to increase value to the customer.**

### **Synthesis**

**Generalize from known to unknown; integrate knowledge from several areas; create new knowledge, insights or solutions.**

**280: Compare processes from firms in different industries and propose a new process for your firm. Design a new process to improve customer relationship management. Create a new value chain that minimizes use of intermediaries while also improving CRM.**

### **Evaluation**

**Assess value of ideas; make choices based upon reasoned evidence; discriminate among complex ideas; make judgments**

**280: Evaluate the strengths and weaknesses of different process models and decide which is most appropriate for a firm. Assess whether a competitor's value chain is appropriate for your firm.**