

College of Business

ACTG 378: ACCOUNTING INFORMATION MANAGEMENT -- Fall 2007

Monday/Wednesday 8-9:50, Bexell Hall Room 412

CONTENTS

- [Course Description](#)
- [Course Materials](#)
- [Blackboard](#)
- [Tentative Course Schedule](#)
- [Learning Outcomes](#)
- [Student Evaluation](#)
- [Group Assignments](#)
- [Individual Assignments](#)
- [Course Policies](#)

INSTRUCTOR

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[Byron's web site](#)

[Course Syllabus - PDF version](#)

OFFICE HOURS

- Monday 10:00 - 11:00
- Tuesday 10:00 - 11:00
- Wed 2:00 - 3:00
- And gladly by appointment

I would enjoy talking to you!

COURSE DESCRIPTION -- ACTG378 is a four unit course.

This course is both a required accounting course and the first course in the MIS junior sequence.

The Catalog Description: Introduce students to the field of information management. Topics include information systems technology, the strategic role of IT, the business applications of networks, databases and Internet technologies, the system life cycle model, systems analysis and design methodologies, and the development and implementation of information systems. PREREQ: BA 213, BA 271, BA 275 and junior standing.

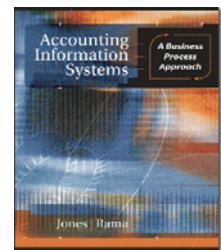
Informally: The rapid evolution and diffusion of information technology (IT) is transforming businesses and managed organizations. In most organizations today, IT systems are crucial for daily operations. These systems are facing new threats and new regulations. To be successful in the "information age," organizations need people who are knowledgeable about the operation and implementation of IT-based business applications. The ACTG378 course has been designed to introduce students to the information systems field. The lectures, readings, and assignments will introduce a number of key concepts and timely issues related to the use of Information Systems in organizations. Specific topics to be addressed include (among other topics): information systems technology, the business applications of networks and databases, the development of information systems, the implementation of systems, IT Governance, and appropriate internal control environments for IT-based business applications. In addition to the lecture and reading material, students will apply the techniques we cover in an integrated group project.

COURSE MATERIALS

Accounting Information Systems: A Business Process Approach, 2nd Ed., Jones, Fredrick & Rama, Dasaratha
 ISBN: 0-324-30161-8 Thomson South-Western

Some course material will be available in Blackboard.

[Return to Contents](#)



[Student Companion Site](#)

Tentative Course Schedule -- Fall 2007

JR# refers to a chapter in Jones-Rama. Please read **Reading** assignments in preparation for class.

Week	Monday	Wednesday	Due Thursday Night
1 Sep 24	Welcome - Introduction, Assignments Project Assignment Overview	Read: JR1. Introduction to Accounting Information Systems	Due: List Group Members Due: Plan Group Work -Due Mon., Oct. 1
2 Oct 1	Read: JR2. Business Processes and Data	Read: Brynjolfsson & Hitt (1998) Read: Kraemer & Dedrick (2001)	Due: PRJ1: Create Narrative Description
3 Oct 8	Modeling Systems Read: JR3. Documenting Systems Quiz on Productivity Paradox readings?	Read: JR4. Identifying Risks and Controls	Due: Diagram Activities (Individual)
4 Oct 15	COBIT: Controlling and Auditing IS	Review & Project Work	Due: PRJ2: Diagram Activities Due: PRJ3: Identify Controls
5 Oct 22	Mid Term Exam: JR Chapters 1-4, COBIT, The Productivity Paradox, & other material from the slides.	Read: JR5. Data Design	Due: Group Member Evaluations
6 Oct 29	Structured and Unstructured Data	Read: JR6. Queries and Reports Read: JR7. Forms	Due: PRJ4: Design Data Structures
7 Nov 5	SQL: Structured Query Language Meet in computerized classroom 324	More SQL (Room 324)	Due: PRJ5: Design Reports Due: PRJ6: Design Forms
8 Nov 12	Computer Hardware	Software: Read: An Empirical Comparison of Seven Programming Languages Prechelt (2000) IEEE Computer, V33	
9 Nov 19	How Does the Internet Work? W3C, Networking, HTTP, and HTML		Due: Complete Group Project
10 Nov 26	XML, XBRL, Web Services, and Feasibility Analysis Due Tuesday: SQL homework assignment (This can be done much earlier!)		
Dec 3-7, Finals Week	TBA Bexell 412 (our regular classroom) University Final Schedule		

[Return to Contents](#)

STUDENT EVALUATION

Student evaluation will consist of two related areas--the understanding of basic concepts and the ability to apply tools and techniques. Students will demonstrate their understanding of concepts by participating in classroom discussions and completing written assignments, quizzes, and examinations. Students will demonstrate their ability to apply tools through completing assignments and projects.

Grade Component	Weighting
Group Project: Design an AIS	30 %
Individual Assignments and Quizzes	10 %
Midterm Examination	30 %
Final Examination	30 %

Final grade percentages							
Grade Minimum Score		Grade Minimum Score		Grade Minimum Score		Grade Minimum Score	
A	93%	B+	87%	C+	77%	D+	67%
A-	90%	B	83%	C	73%	D	63%
		B-	80%	C-	70%	D-	60%

Individual Assignments, and Quizzes:

- *Assignments:* Two assignments are planned
 - Individual UML Activity Diagram: See [Group Project Description](#)
 - SQL exercises. These exercises will be made available in Blackboard.
- *Quizzes* may be given during the term. Quizzes will be given during class and are usually discussed immediately after completion. Individuals not in class will not be allowed to make up the quiz once it is discussed in class. Quizzes will be based upon the assigned readings or material previously presented in class.

[Return to Contents](#)

COURSE POLICIES

Academic Honesty Policy:

Individuals are encouraged to discuss the projects and assignments outside of class and share ideas. However, unless specified as a team assignment, each person must individually complete and submit his/her own work. Students are expected to uphold the OSU standard of conduct for students relating to academic dishonesty. Academic dishonesty is defined as an intentional act of deception in which a student seeks to claim credit for the work or effort of another person or uses unauthorized materials or fabricated information in any academic work. Students assume full responsibility for the content and integrity of the academic work they submit. The guiding principle of academic integrity is that a student's submitted work, examinations, reports, and projects

must be that student's own work for individual assignments, and the group's own work for group assignments/projects. Students are guilty of academic dishonesty if they:

- Use or obtain unauthorized materials or assistance in any academic work; i.e., cheating. </LI
- Falsify or invent any information regarded as cheating by the instructor; i.e., fabrication. </LI
- Give unauthorized assistance to other students; i.e., assisting in dishonesty. </LI
- Represent the work of others as their own; i.e., plagiarism. </LI
- Modify, without instructor approval, an examination, paper, record or report for the purpose of obtaining additional credit; i.e., tampering.

The penalty for academic dishonesty is severe. Any student guilty of academic dishonesty may be subject to receive a failing grade for the exam, assignment, quiz, or class participation exercise as deemed appropriate by the instructor. In addition, the penalty could also imply that the student receive a failing grade for the course and be reported to the University officials at the College of Business, and the officials at the Office of Student Affairs.

Behavior in Class:

- Behavior in class should be professional at all times. The atmosphere within the classroom should be the same as you might expect in a casual business meeting. People must treat each other with dignity and respect in order for scholarship to thrive. Behaviors that are disruptive to learning will not be tolerated and may be referred to the Office of the Dean of Students for disciplinary action.

Accommodations:

- Students who have any emergency medical information the instructor should know of, who need special arrangements in the event of evacuation, or students with documented disabilities who may need accommodations should make an appointment with the instructor as early as possible, no later than the first week of the term. If additional assistance is required the student should contact the Office of Disability Services.

This statement is gladly included in cooperation with University policy: *"Accommodations are collaborative efforts between students, faculty and Services for Students with Disabilities (SSD). Students with accommodations approved through SSD are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through SSD should contact SSD immediately at 737-4098."*

Discrimination or Harassment:

- Discrimination or harassment will not be tolerated in the classroom. Most cases of discrimination or harassment violate Federal and State laws and University Policies and Regulations. Intentional discrimination or harassment will be referred to the Affirmative Action Office and dealt with in accordance with the appropriate rules and regulations.
- Unintentional discrimination or harassment is just as damaging to the offended party, but it usually results from people not understanding the impact of their remarks or actions on others, or an insensitivity to the feelings of others. We must all strive to work together to create a positive learning environment. This means that each individual should be sensitive to the feelings of others and tolerant of the remarks and actions of others. If you find the remarks and actions of another individual offensive, please bring it to their attention. If you believe those remarks and actions constitute intentional discrimination or harassment, please bring it to your instructor's attention.

Arbitration:

- There will be a one-week arbitration period after graded items (projects, assignments, etc.) are returned. Within that one-week period, you are encouraged to discuss any assumptions and/or misinterpretations that you made about the activity that may have influenced your grade.

[Return to Contents](#)

LEARNING OUTCOMES

My goal for each of you this term is that you will be able to:

- Explain how business processes, transaction cycles, and IT systems (both AIS and MIS) relate to each other.
- Document individual business processes from an information system perspective.
- Explain how internal controls are implemented in an information system.
- Work productively in a group environment.
- Recognize limiting and enabling factors of technology, and describe the forces and processes governing modern day business computing.
 - Understand the relationships, both historical and current, between the use of information system technology and business productivity.
 - Provide an overview of information successes and failures and some of their causes.
 - Match standard business data processing needs with standard technologies.
- Demonstrate a fundamental understanding of how the Internet works. Note: this is not the same as knowing how to navigate the Internet.
 - Describe different network topologies and some of their advantages and disadvantages.
 - Recognize the various Internet and WWW standard setting organizations, their responsibilities and their governance.
 - Conceptually make and serve an HTTP request.
- Recognize the operational and strategic business opportunities of XML-based data communications such as web services.
 - Formulate a simple XML model of a standard set of business information; e.g., a simple earnings statement, a sales order, or a customer complaint.
 - Explain the role of XBRL in financial business reporting.
 - Conceptually formulate an XML-based web service for sharing information between a B2B supplier and consumer.
- Explain general IT Governance principles, including some key details.
- Design and read the relational structure of prototypical complexes of business data and information and distinguish good from bad data models.
 - Classify an arbitrary selection of business processing data into entities, attributes and relationships.
 - Specify primary and foreign key structures.
 - Differentiate master, transaction, and junction tables, explaining their characteristics and role in a relational database system.
 - Translate back and forth between standard business information and its relational representation.
 - Name the major characteristics of industry-strength database systems.
- Describe the basics of several system modeling techniques.

- List the basic diagrams of and concepts behind the UML (Unified Modeling Language).
- Create a UML activity diagram or flow chart for a business process depicting events, actors, forms, decision points, and data stores.
- Draw simple data models such as Entity Relationship Diagrams (ERD) or data-oriented UML Class Diagrams.
- Recognize and describe the advantages and limitations of psuedo code or structured English.
- List the basic components of Data Flow Diagrams (DFD) and describe basic DFD balancing rules.
- Recognize and describe the advantages and limitations of decision tables.
- Demonstrate a basic understanding of relational database access concepts:
 - Explain what makes a password relatively strong or relatively weak.
 - Discuss how an RDBMS (Relational Database Management System) can support business processes and controls based on Referential Integrity (foreign keys) and Transaction Integrity (Roll Back).
 - Describe how an RDBMS supports data documentation. (Diagrams and a database about the database.)
 - Generally interpret an SQL query. What are the basic key words? What do those key words do? (SELECT, FROM, WHERE)
 - Create simple SQL statements which create lists of items from the database.
 - Adapt more complex statements to add columns or join to additional tables.
 - Understand how SQL supports list filtering and joining (WHERE), subtotals (GROUP BY), sorting (ORDER BY), Uniqueness (DISTINCT) and a few other functions (MIN, MAX, AVG, COUNT, SUM).
 - Describe how different queries can be used to support realistic business tasks.

Chapter 1

A successful student will be able to:

- describe and contrast the scope of MIS and AIS systems, identifying how individual systems, business processes, transaction cycles, and events are situated;
- define the key terms: MIS, AIS, business processes, transaction cycles, events, applications, internal control, assurance services, ERP, and off-the-shelf software; and
- explain the various roles IS and non-IS users play in IS acquisition, development, management, and use.

Chapter 2

A successful student will be able to:

- list three transaction cycles giving examples of relevant processes and events;
- explain how data is generally organized in a computer including key concepts (entities, fields, records, files, transaction files, master files);
- explain the relationship between master and transaction files, identifying them and giving examples of the kind of data (attributes) each includes;
- identify events in a business process;
- identify reference and summary data as it commonly appears in an information system and explain why the distinction is important to data processing; and
- explain the difference between recording, updating, and file maintenance activities.

Chapter 3

A successful student will be able to:

- list several reasons why process modeling is important in business;
- contrast functional, object, and dynamic models in usefully describing business processes;
- list and describe the kinds of information depicted in a UML activity diagram (sequential flow of activities, responsibilities, documents, and information flow);
- list and describe the key components of UML activity diagrams, relating each component to the type of information it depicts (swimlanes, start and end points, branches, events, documents, sequence arrows, information flow arrows, and tables);
- differentiate overview and detailed UML activity diagrams (process decomposition);
- interpret UML activity diagrams; and
- prepare UML activity diagrams.

Chapter 4

A successful student will be able to:

- list and describe internal control objectives and components within a coherent framework using examples from the COBIT framework;
- differentiate between execution, information systems, asset protection, and performance objectives;
- identify and describe execution and information systems risks associated with processes in the acquisition and revenue cycles;
- identify and describe record and update risks associated with a general ledger system;
- explain how workflow controls can be used to reduce risk; and
- depict or highlight the need for or use of internal controls using business processes narratives and activity diagrams.

Chapter 5

A successful student will be able to:

- define key data representation terms: attributes, primary keys, and foreign keys;
- identify relational cardinalities (1:1, 1:M, and M:M) for entities and transactions related to business processes;
- understand the role of junction tables in managing many to many relationships; and
- create a data-oriented UML class diagram depicting tables, attributes, and primary and foreign keys.

Chapter 6

A successful student will be able to:

- categorize reports based on the kind of data they report (e.g., master, transaction, detail, summary, or derived); and
- map documented data structures to generated reports.

Chapter 7

A successful student will be able to document computer forms, demonstrating the ability to :

- create UML use case diagrams and explain their importance for system development;
- identify forms needed to support a business process;
- list a number of commonly used form elements;
- associate those elements with their role as system controls to manage IS risks;
- generate simple use case descriptions; and
- map documented data structures to forms.

These objectives were selected after reviewing existing courses in our program, talking to industry practitioners, and reviewing the model curriculum proposed by ISACA (Information Systems Audit and Control Association). The text, examinations, assignments, and project formulation have all been chosen to support these objectives.

This course will address the following [College of Business Learning Outcomes](#)

- College of Business Specific Learning Outcomes
 - Each student must understand and be able to use team building, collaborative behaviors and project management in the accomplishment of group tasks.
 - Each student shall demonstrate information technology skills as they apply to today's business environment.
 - Each student shall be able to converse and to write at an acceptable level for business communications in English.
- Accounting Option Specific Learning Outcomes
 - Each student shall be able to apply accounting concepts, principles, standards, and processes.
 - Each student shall demonstrate information technology skills as they apply to today's business environment to solve business problems and to communicate those solutions.
 - Each student must demonstrate analytical skills through finding, organizing, assessing, and analyzing data appropriate to a given situation.
 - Each student shall be able to impart the knowledge and skills listed above to provide insightful advisory judgments and recommendations regarding the accounting for and the business implications of events, conditions, circumstances, and transactions that give rise to business opportunities or problems.
 - Each student must demonstrate strong organizational skills and a capacity for responsive and timely work.