

ACCOUNTING 302
ACCOUNTING INFORMATION SYSTEMS
UNIVERSITY OF DELAWARE
SPRING 2009



PROFESSOR:	Guido Geerts
CLASS HOURS:	Tuesday & Thursday 9:30 a.m. – 12:15 p.m.
CLASS ROOM:	Alfred Lerner Hall 230
OFFICE:	Purnell Hall 224
OFFICE HOURS:	Tuesday 1:00 p.m. -- 3:00 p.m. Thursday 1:00 p.m. – 3:00 p.m. By appointment
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TEXTBOOK (OPTIONAL):	Enterprise Information Systems. A Pattern-Based Approach. Dunn, Cherrington and Hollander McGraw-Hill – third edition; 2005

COURSE OVERVIEW

How do we build computerized accounting systems that meet the needs of internal and external accounting parties and that additionally can be used by other decision-makers in management, marketing, logistics, etc.? This course answers that question with a strong emphasis on the *design and use of databases*. A database is a model of a company. Designing a good accounting database system starts with recognizing how a company deploys its resources and people to create value for its customers and hence a profit for its owners. We call a model of this strategic process the Business Enterprise Script, an example of which can be seen (at two levels of abstraction) on the top half of the next page. Once a company's script for profitable economic behavior has been specified, each process in that script can be described further as a value-added exchange where the enterprise gives up or consumes some resources (such as its stock of labor and raw materials) and takes back or produces something of greater value to its customers (such as finished goods). Each of these exchanges can be separately modeled in a database, and when we put them all together, we have a complete picture of an enterprise's value-chain and a complete specification of its accounting system. From this accounting system, we will see that it is possible to produce any of the various account balances or cost figures that accounting decision-makers require. It is also possible to derive quite quickly all of the traditional types of financial statements (income statements, balance sheets, etc.) that are used by external parties such as the government, creditors, and stockholders.

In ACCT-302 at the University of Delaware, we use the software package ACCESS to implement the accounting systems designed in the modeling processes described above, but students in this class will be able to transfer their knowledge directly to a multitude of other database packages.

The objectives and material content of this course are most applicable to those students headed for general careers as auditors and corporate accountants. When students leave this course, it is our goal that they will be able to take any accounting system that they

encounter in practice and relate its features to the conceptual database framework learned here. This should give students a sound basis for understanding the functioning of those systems. Additionally, because this course strongly emphasizes conceptual database design first and cost-benefit compromise only as a secondary step, the lessons learned here should strongly dispose students toward demanding that the computer systems they use be as flexible and non-artifactual as possible. This will allow them to be informed consumers and users of high quality accounting software.

A topic and assignment schedule is given on the next two pages. This is followed by a detailed explanation of grading components and procedures. Students should pay special attention to the description of the CLASSWORK component. From experience, I realize that my standard of classwork is different from what students assume. Please look it over and see if you have any immediate questions.

**ACCT 302 – SPRING 2009
TOPIC AND ASSIGNMENT SCHEDULE**

PART 1

<i>Date</i>	<i>Topics</i>	<i>Assignments</i>
February		
10	Representing Accounting Reality with Conceptual Models and Databases	
12	Entity-Relationship Modeling	
17	Entity-Relationship Modeling Cooperative Learning	
19	Relational Database Design	<i>Stevie</i>
24	Relational Database Design Cooperative Learning	
26	Quiz: Pierre Legume	THQ 1
March		
3	Access Lab I: Design	
5	Quiz: Alaska Aircraft Expedition (AAE)	THQ 2
10	Entity-Relationship Modeling and Relational Database Design Review	
11		Project 1
12	Exam 1: E-R Modeling and Relational Database Design	

PART 2

<i>Date</i>	<i>Topics</i>	<i>Assignments</i>
March		
17	Access Lab II: Row and Column Selection	
19	Access Lab III: Aggregation	
24	Access Lab IV: Inner and Outer Joins	
26	Access Lab V: View Hierarchies	
March 28 – April 5 Spring Break		
April		
7	Access Lab VI: Advanced Query Techniques	
9	Practice Exam	

PART 3

<i>Date</i>	<i>Topics</i>	<i>Assignments</i>
April		
14	Exam 2: Access	
16	Enterprise Modeling: The Resource-Event-Agent Framework	Project 2 (BCC) 2:00 p.m.
21	Enterprise Modeling: Policy Specifications	
23	Enterprise Modeling: Patterns and Heuristics	
28	Enterprise Modeling: Cooperative Learning	
30	Quiz: Boston Bottle	THQ#3 Essay
May		
5	Acquisition Cycle	
7	Acquisition Cycle	
12	Conversion Cycle	
14	Conversion Cycle	
19	Revenue Cycle	

FINAL EXAM
WEDNESDAY MAY 27
7:00 PM - 9:00 PM
SMI120

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DESCRIPTION OF GRADING COMPONENTS AND PROCEDURES

GRADING SUMMARY:

Exam I (E-R Modeling)	10
Exam II (Access)	10
Final Exam	30
Take-Home Quizzes (3*3)	9
Essay	3
Project 1: E-R Modeling	10
Project 2: MS Access	15
Cooperative Learning (3*3)	9
Classwork	4
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	100

- a. **EXAMINATIONS** -- There will be three examinations: E-R modeling (10%), Access (10%), and a final (30%). I will give out a list of learning objectives approximately one week before each exam that will detail the major questions to be expected.

- b. **TAKE-HOME QUIZZES** -- The three take-home quizzes are worth 9% of your grade (3% each), and I will assign them when a certain set of learning objectives is ready to be assessed. Most of the take-home quizzes are old test questions. Past students have told me often that timely completion of the take home quizzes is key to learning the complex data modeling skills of the course.

c. **ESSAY** -- During the last week of April, I will ask students to write a 2-4 page essay. The first part (1-2 pages) of the essay should encompass the following topics:

1. a summary of your experiences with computers and accounting information systems,
2. an estimation of how knowledge about computerized accounting systems and database management packages fits into your long and short term career plans.

The second part of the essay (1-2 pages) will serve as a mid-term check. In this part of the paper, you will be asked to evaluate how well your performances on exams, quizzes, and computer projects seem to reflect your own self-estimation of your mastery of course materials. You will also be asked to write down *at least one* suggestion for improving the course.

During the first week of May, all students in the class will be expected to come in for an office visit to discuss the essay and other class matters.

d. **PROJECTS**-- There will be two projects assigned in the course. For the first project (10% of your grade) you will be asked to draw an E-R diagram and a relational database structure. You are allowed to work in groups of maximum 3 people for the first project. For the second project (15% of your grade) you will be asked to complete a database (create tables and enter data) and to solve a number of database queries. The second project is an individual project. You can earn extra credit points for presentation, imagination, and for completing additional assignments.

e. **COOPERATIVE LEARNING** – There will be three cooperative learning sessions this semester (ER modeling, Relational Database Design, and Enterprise Modeling). During these sessions you are randomly assigned to small groups and

are asked to solve a number of problems related to a specific topic. Each cooperative learning quiz counts for 3% of your grade. The group with the highest score gets some extra credit points.

- f. **CLASSWORK** -- Data modeling of business phenomena leading to cost-beneficial accounting database design is the focus of this course, and it is a difficult problem-solving skill that takes time, patience, and practice to master. Class lectures concentrate on this skill throughout the term. Students realistically cannot afford to miss class, and if you do, you need to get the notes quickly from a classmate and then come see me. Classwork will count for 4% of the grade points available for the term, and it will comprise both everyday participation and preparation (as assessed by the teacher). Simply coming to class **will not** add to the assessment of everyday participation, but cutting class will certainly detract from it. I expect involved participation and sharing of ideas, problems, and misunderstandings -- a standard that is different from attentive note-taking. Class participation is assessed both qualitatively and quantitatively, with most emphasis on the former. **One important note:** with an extraordinarily dismal classwork record, it is possible to affect more than 4% of a final grade. Such a case is rare, but it has happened to students a few times in the past.