CMSC 461: : Introduction to Database Management Systems
Section 201 - Mon/Wed 5:30 - 6:45

Computer Science Department
University of Maryland Baltimore County
Fall, 1993

Instructor: Dr. Timothy Finin, 210 ECS
Phone: 455-3522
email: finin@cs.umbc.edu.
Office Hours: by appointment

Teaching Assistant: Brad Fordham, room 218 ECS, Phone: 455-3094, email: fordham@cs.umbc.edu.

Prerequisites: CMSC 341 or permission of instructor.

UMBC Catalog: Database management and the different data models currently used to structure the logical view of the database: relational, hierarchical, and network. Implementation techniques including file organization, query processing, concurrency control, recovery, integrity and security.

Textbook: *Fundamentals of Database Systems*, Elmasri and Navathe, Benjamin Cummings, 1989. Additional readings in the form of papers may be required.

Grading Policy: Grades will be assigned on the basis of accumulated points. A tentative weighting is as follows:

- Two mid-term exams 30%
- Final examination 25%
- Homework assignments 45% (including a case study)

Incompletes. As per University policy, incomplete will be granted only under extraordinary circumstances; students who are enrolled after November 15 (the last day to drop a class) should be prepared to receive a grade of A-F.

Homeworks: There will be four or five homeworks plus a special database design case study. Several of the homework assignments will require use of VAX/VMS SQL.

Late Policy: Homeworks will be due at the beginning of the class unless otherwise specified. If a homework is less than 24 hours late, it will be worth 50%. No homeworks will be accepted later than 24 hours after the due date. This will allow timely discussion of homework solutions in the class. **Homeworks are expected to be worked on individually. Collaboration in any form will not be tolerated.**

Examination Policy: Exams are closed book and fixed duration. Make-up exams will only be given when a student is prevented from taking the exam due to unforeseen circumstances (e.g., sickness), and formal proof will be required to prove the prevailing circumstance.

Academic Honesty: Cheating in any form will not be tolerated. You may discuss programming assignments with anyone. However, any help you receive *must* be documented. At the beginning of your program, you must include a comment indicating the sources you used while working on it (excluding course staff and text), and the type of help you received from them. If you received no help, say so. Failure to include this comment at the top of your program will result in your program being returned ungraded.

Newsgroup: There will be a local newsgroup named *umbc.cs.461* for this course. We will post messages to this newsgroup and assume that you will read them. You should also feel free to post your own messages to this newsgroup if you feel you have something that would be useful and appropriate to share with the rest of the class. If you do not know how to read news, you should find out by reading the man page for the *rn* command.

Tentative Syllabus

Week	Topics	Chapter	Pages
1	An Introduction to Database Systems:	1,2	3-36
	The four data models		
2-3	The Relational Data Model and	6,omit 6.3.2	133-168
	Relational Algebra		
3-4	SQL - A relational Database language	7	175-205
4	Relational Calculus	8	211-233
5	Database Design	16 (skim)	453-482
	Exam 1		
6	Entity/Relationship (ER Model)	3, 12.1.1	37-61, 329-334
	Enhanced ER Model	15	410-430
7-8	First, Second, and Third Normal Forms	13, 14.1,	355-398
9	Query-by-Example	9.2	241-249
10	Exam 2		
10-11	Hierarchical Model and IMS	10, 23.2, 12.1.3	253-274, 338-342, 683-696
12-13	Network Model and IDMS	11, 23.3, 12.1.2	281-320, 334-338, 704-711
13	The System Catalog	17	489-498
14-15	Recovery and Concurrency	19	535-582