

King Fahd University of Petroleum and Minerals
Information and Computer Science Department
ICS 334 - Database Systems
First Semester 1999 - 2000 (991)

Instructor: Abdallah Al-Sukairi

Office: 22/315 *Phone:* 2822 *Office Hours:* U. T. 11:00 - 11:50 / 1:00 - 2:00 or by appointment
e-mail: sukairi@kfupm.edu.sa

Catalog Description

Basic database concepts. Conceptual modeling. Relational data model. Database design. Relational theory. Relational Database languages. Database security and integrity. Database systems development. Introduction to transaction processing.

Text book:

Database Systems: A Practical Approach to Design, Implementation and Management, Second Edition by Thomas Connolly and Carolyn Begg (Addison Wesley Longman Limited 1998).

Grading Policy:

- ☞ Every two unexcused absences (maximum of 9) result in a loss of one percent point.
- ☞ Any student with official excuse must present it no later than **one week** following his resumption of class attendance.
- ☞ No makeup of exams or assignments.

Quizzes	10%	- Dates marked on the other side.
Assignments	10%	- No assignment is accepted after due date, class time.
Group Project	15%	
Major I	15%	- Date marked on the other side.
Major II	20%	- Date marked on the other side.
Final	30%	

Course Outline:

<i>Topic</i>	<i>Chapter</i>	
1. Background		
1.1 Introduction	[Ch. 1]	1 Week
1.2 Database Environment	[Ch. 2]	1 Week
1.3 The Relational Model	[Ch. 3]	
1.4 Planning, Design, and Administration	[Ch. 4, Sections 4.1 - 4.4.1 only]	
2. Database Design		
2.1 Entity-Relationship Model	[Ch. 5]	
2.2 Normalization	[Ch. 6]	
2.3 Design Methodology	[Ch. 7 & 8, 10, 11, 12]	
3. Database Languages		
3.1 SQL	[Ch. 13]	
3.2 Advanced SQL	[Ch. 14, Omit Sections 14.6-14.8]	
3.3 QBE	[Ch. 15]	
4. Introduction to Transaction Processing		
4.1 Database Security	[Ch. 16, Omit Sections 16.4 - 16.8]	
4.2 Transaction Management	[Ch. 17, Omit Section 17.4]	