

Istanbul Bilgi Universitesi
Department of Computer Science
Fall 2008

Course Name: Database System I, Comp381

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Book:

'**Fundamentals of Database Systems**', 5th edition, by Elmasri and Navathe, Ed: Addison-Wesley, and ISBN: 0-321-41506-X

Recommended Readings:

'**An Introduction to Database Systems**', 8th edition, by C.J. Date, Ed. Addison Wesley, and ISBN: 0-321-18956-6

'**Database Management Systems**', 3th edition, by Ramakrishnan, Gehrke, Ed: McGrawHill, ISBN: 0-07-115110-9

'**Database System Concepts**', 5th edition, by Silberschatz, Korth and Sudarshan, Ed: McGraw-Hill, and ISBN: 0-07-295886-3

Prerequisite: COMP 112 or COMP 150

Course Description: Almost all large data processing systems rely on a generalized database to store and retrieve data. This course provides a basic understanding of database systems. Course contents include introduction to databases, Entity-Relationship model, relational data model, SQL data definition and manipulation language, functional dependencies and normalization concepts.

Tentative Schedule:

Week
Chap1-Chap2: Introduction
Chap3: Data Modelling Using the Entity-Relationship (ER) Model
Chap4: The Enhanced Entity-Relationship (EER) Model
Chap5: The Relational Data Model and Relational Database Constraints
Chap6: The Relational Algebra and Relational Calculus
Chap7: Relational Database Design by ER and EER to Relational Mapping
Chap10: Functional Dependencies and Normalization for Relational Databases
Chap11: Relational Database Design Algorithms and Further Dependencies

The classes are dedicated to the use of the MySQL software and the practice of the SQL language (Chap8 and 9). Quizzes done during the class hours will be announced one week in advance by the TA. A missed quizz worth "0" point and affects your average with the TA. You will be graded on how well your implementation works and how well your are able to answer the TA's questions about your code.

Important announcements will be sent to the class mailing list (comp-381-announce@cs.bilgi.edu.tr), so, please, register yourself asap, and read your e-mail frequently.

Performance Evaluation:

In order to be eligible to pass this course, it is mandatory to submit original and acceptable work for all the projects of the course. You will be graded on how well your implementation works and how well your are able to answer the TA questions about the program.

Average of the instructor's marks: 35%

Average of the TA's marks (projects and quizzes): 25%

Final exam: 40%