Menoufiya University
Faculty of Computers and Information
Department of Computer Science

جامعة المنوفية
كلية الحاسبات والمعلومات
قسم علوم الحاسب

Annual Course Report

(DATABASE SYSTEMS-1)

A- Basic Information

1- **Title and Code**   Database Systems-1/ IS331

2- **Programme(s) on which this course is given**   CS and IT

3- **Academic year / Level of programme** 3rd year - 1st Semester

4- **Units/Weekly hours**

  Lecture 3   Tutorial/Practical 3   Total 6

5- **Names of lecturers contributing to the delivery of the course**

  1-Dr. Arabi Keshk

  Course co-ordinator: Dr. Arabi Keshk
  External evaluators: Not assigned yet

B- Statistical Information

No. of students attending the course: No. 31   % 100

No. of students completing the course: No. 31   % 100

Results:

Passed: No. 29   % 63.6   Failed: No. 2   % 6.4

Grading of successful students:

Excellent: No. 2   % 6.5   Very Good: No. 4   % 12.9

Good :   No. 12   % 38.7   Pass: No. 11   % 35.5

C- Professional Information

1- Course Teaching

	Topics actually taught	No. of hours	Lecturer
1	**An Overview of Database Management.** • What is a database system? • Why database? • Data independence. • Relational systems and others. • Oracle: Intro to Oracle & SQL*Plus, create/modify tables	6	Dr. Arabi Keshk
2	**Database System Architecture** • The three levels of the architecture. • Mappings. • The database administrator. • The database management system. • Data communications. • Client/server architecture.. • Distributed processing. • Oracle: SQL-Add, update, delete	6	Dr. Arabi Keshk
3	**An Introduction to Relational Databases** • An informal look at the relational model. • Relations and relvars. • What relations mean. • Optimization. • The catalog. • The suppliers-and-parts database. • Oracle: SQL-Retrieving data from a single	6	Dr. Arabi Keshk
4	**An Introduction to SQL** • Views. • Transactions. • Embedded SQL. • Dynamic SQL and SQL/CLI. • SQL is not perfect. • Oracle: Multitable queries	6	Dr. Arabi Keshk
5	**Types.** • Values v Variables. • Types v Representations. • Type Definition. • Operators. • Type generators. • SQL facilities. • **Oracle**: Multiuser Environment;	6	Dr. Arabi Keshk
6	**Relations** • Relation types. • Relation values. • Relation variables.	6	Dr. Arabi Keshk

	• SQL facilities. • Oracle: PL/SQL Programs		
7	**Mid-term Exam, Relational Algebra** • Closure revisited. • The original algebra: Syntax. • The original algebra: Semantics. • What is the algebra for? • Further points. • Additional operators. • Grouping and ungrouping. • Oracle: Advanced PL/SQL, Oracle	6	Dr. Arabi Keshk
8	**Integrity** • Predicates and propositions. • Relvar predicates and database predicates. • Checking the constraints. • Internal v external constraints. • Correctness v consistency. • Integrity and views. • A constraint classification scheme. • Keys. • Triggers (a digression). • SQL facilities. • **Oracle**: Oracle	6	Dr. Arabi Keshk
9	**Views** • What are views for? • View retrievals. • View updates. • Snapshots (a digression). • SQL facilities. • **Oracle**: Custom Forms (Selected Topics)	6	Dr. Arabi Keshk
10	**Functional Dependencies** • Basic definitions. • Trivial and nontrivial dependencies. • Closure of a set of dependencies. • Closure of a set of attributes. • Irreducible sets of dependencies. • Oracle: Custom Forms (Selected Topics)	6	Dr. Arabi Keshk
11	**Further Normalization I: 1NF, 2NF, 3NF, BCNF,** • First, second, and third normal forms. • Boyce/Codd normal form. • A note on relation-valued attributes. • The normalization procedure summarized. • A note on denormalization. • Orthogonal design (a digression). • Other normal forms. • **Oracle**: Report Builder (Selected Topics)	6	Dr. Arabi Keshk

12	**Semantic Modeling** • The overall approach. • The E/R model. • E/R diagrams. • Database design with the E/R model. • A brief analysis. • **Oracle**: Creating an Integrated Application	6	Dr. Arabi Keshk
13	**Recovery** • System recovery. • Media recovery. • Two-phase commit. • Savepoints (a digression). • SQL facilities. • **Oracle**: Project	6	Dr. Arabi Keshk
14	**Concurrency** • Three concurrency problems. • The three concurrency problems revisited. • Deadlock. • Serializability. • Recovery revisited. • Isolation levels. • Intent locking. • ACID dropping. • SQL facilities. • **Oracle**: Project Presentations	6	Dr. Arabi Keshk

Topics taught as a percentage of the content specified:

≥90 % [√]   **70-90 %** [ ]   **<70%** [ ]

2- Teaching and Learning Methods:

Lectures: [√]

Practical Training/ Laboratory: [√]

Seminar/Workshop: [√]

Class Activity: [√]

Case Study: [√]

Other Assignments/Homework: [ ]

3- Student Assessment:

Method of Assessment	Percentage of total

Written examination	60
Oral examination	10
Practical/laboratory work	10
Other Assignments/class work	20
Total	100 %

Members of Examination Committee:
Dr. Arabi Keshk
Mr. Rashed Khalil
Mr. Hamdy Median
Ms. Warda Elkholy
Role of external evaluator:
External evaluator not assigned yet

4- Facilities and Teaching Materials:

Totally adequate	☐
Adequate to some extent	√
Inadequate	☐

5- Administrative Constraints

-No. of students attending of Tutorial/Practical work not matched to the number of instruments laboratory.
-Period time of Practical Training /laboratory per week not enough.

6- Student Evaluation of the course: Response of Course Team

Add some concepts as Database   Under revision
administration and others Concept
related to developing database
using oracle

7- Comments from external evaluator(s):

External evaluator not assigned yet. .

8- Course Enhancement:

Progress on actions identified in the previous year's action plan:

This is the first year and no previous action Plan**.**

Role of external evaluator:
External evaluator not assigned yet

Course Coordinator: Dr. Arabi Keshk

Signature:

Date: