Kingdom of Saudi Arabia

Ministry Of Higher Education

Majmaah University

Deanship of Quality assurance

and Human Development

Course Specification

Database (1) CIS-125-Z

1431/1432

Course Specification

Institution ***Majmaah University***
College/Department : ***College of Science in AL-Zulfi /*** ***Computer Science& Information***

A- Course Identification and General Information

1. Course title and code: ***Database (1) CIS-125-Z***
2. Credit hours ***4***
4. Name of faculty member responsible for the course ***Mohammed Talat Hasan Mubarak***
5. Level/year at which this course is offered ***: 2level / 1 year***
6. Co-requisites for this course (if any) ***Computer programming and algorithm CIS 152***
7. Location if not on main campus ***College of Science in AL-Zulfi***

B- Objectives

The main objective of this course is to provide students with the theoretical background and practical experience relating to the design and implementation of relational databases.The main objectives of the course are:

1. Learn the fundamental database concepts and systems methodologies to design database systems. (10%)
2. Understand data modeling using ER Model and EER Model and the mappings to relational model (25%)
3. Understand relational database model and database creation using the spcified DBMS in DB lab (25%)
4. Understand Relational Algebra and Structured Query Language (25%)

Understand functional dependencies and database normalization (15%).

C- Course Description (Note: General description in the form to be used for the Bulletin or Handbook should be attached)

1. Topics to be Covered

List of Topics	No of Weeks	Contact hours
Databases and Database Users (Sections 1, 2, 4, 5, 6)	**1**	**3**
Database System Concepts and Architecture (Sections 1, 2, 3, 5, 6)	**2**	**6**
Data Modelling Using the Entity-Relationship Model (Sections 1-7)	**2**	**6**
The Relational Data Model and Relational Database Constraints	**2**	**6**
ER-to-Relational Mappings	**2**	**6**
The Relational Algebra (Sections 1-5)	**2**	**6**
SQL - The Relational Database Standard (Sections 1-6)	**2**	**9**
Functional Dependencies and Normalization for Relational Databases	**1**	**9**

2. Course components (total contact hours per semester):

Lecture: 39	Tutorial:	Laboratory 28	Practical/Field work/Internship	Other:

3. Additional private study/learning hours expected for students per week. (This should be an average :for the semester not a specific requirement in each week)

4. Schedule of Assessment Tasks for Students During the Semester

D- E Learning Resources.

1. Required Text(s) : Fundamentals of Database Systems
• 2. Essential References : Modern Database Systems, Jeffrey A. Hoffer, Mary Prescott, Fred McFadden, 7th Ed., Prentice Hall, 2004
3- Recommended Books and Reference Material (Journals, Reports, etc) (Attach List): • Database Systems Concepts, Silberschatz, Korth and Sudarshan, McGraw Hill, 4th ed., 2002 "An Introduction to Database Systems", C. J. Date, 6th Edition, Addison Wesley, 1995.
4-.Electronic Materials, Web Sites etc : http://www.aw-bc.com/elmasri
5- Other learning material such as computer-based programs/CD, professional standards/regulations

E- Assessment

Assessment Policy		
Assessment Type	**Week**	**Weight**
First Exam	**6**	**20%**
Second Exam	**12**	**20%**
Final Exam		**60%**
Total		**100%**