Syrian Arab Republic		الجمهورية العربية السورية
Ministry of Higher Education	SVU	وزارة التعليم العاليي
Syrian Virtual University	الجامعـة الإفتراضيــة السوريــة Syrian Virtual University	الجامعة الافتراضية السورية

Course Definition:

1- Basic Information:

Course Name	Database System
Course ID	DB
Contact Hours (Registered Sessions)	1:30
Contact Hours (Synchronized Sessions)	1:30
Mid Term Exam	2
Exam	1.15
Registered Sessions Work Load	3
Synchronized Session Work Load	4
Credit Hours	4

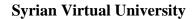
2- Pre-Requisites:

Course	ID
Discrete Structures	DSR

3- Course General Objectives:

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4- Intended Learning Outcomes (ILO):

Code	Intended Learning Outcomes
ILO1	Introduction to databases
ILO2	Database models
ILO3	Internal processes in databases
ILO4	Structure of database systems
ILO5	Data Modeling
ILO6	Model relational databases
ILO7	SQL

5- Course Syllabus (18 hours of total synchronized sessions)

• RS: Recorded Sessions; SS: Synchronized Sessions;

ILO	Course Syllabus	RS	SS	Type	Additional Notes
ILO1	Introduction to databases	1:30	0	assignments	Exercises
ILO2	Database models	1:30	0	assignments	Exercises
ILO3	Internal processes in databases	1:30	0	assignments	Exercises
ILO4	Structure of database systems	0	1:30	assignments	Exercises
ILO5	Data Modeling	0	1:30	assignments	Exercises
ILO6	Model relational databases	1:30	0	assignments	Exercises
ILO7	SQL	4:30	1:30	assignments	Exercises

6- Assessment Criteria (Related to ILOs)

ISC	Interactive Synchronized Collaboration		Ex	Exams		Rpt	Reports	
PF2F	Presentations and Face-to-Face Assessments		PW	Practice Wo	ork			

ILO				Asse	essment	Туре	
Code	ILO	Intended Results	ISC	PW	Ex	PF2F	Rpt

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ILO1	Introduction to databases	Identify databases Identify the history, evolution, benefits, users and applications of databases	✓	✓	✓	√
ILO2	Database models	Identify database models: Flat, hierarchical, skeletal and relational And remote and attractive orientation	✓	√	√	√
ILO3	Internal processes in databases	Identify indexing, transfers and repetition	√	√	√	√
ILO4	Structure of database systems	Identify the structure with three schemes: Internal, conceptual and external planning Identify entities and entity rows	✓	√	√	√
ILO5	Data Modeling	Identify relationships and keys Knowledge of database design and creation of ERD schemas Identify tables	✓	✓	✓	✓
ILO6	Model relational databases	Understand the terms of integration and relationships Understand the importance of the data dictionary	✓	✓	√	√
ILO7	SQL	Identify the SQL language and execute the SELECT clause on a single table. Knowledge of the application of date and descendant functions of literal strings and numbers	√	√	√	√

7- Practice Tools:

Tool Name	Description
SQL Developer	Oracle SQL Developer To Execute SQL Statements.

8- Main References

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- 1- Stephens ,J; Russell ,C *Database Design and Optimization* From Novice to Professional. First ed, published by Apress, Publishers, Inc New York, 2004, 332.
- 2- Thomas C; Carolyn B, Database Systems, third Edition, Addison Wesley, Sep 2002.
- 3- Risch, T; *Tuning the Reactivity of Database Monitors*, Hewelett--Packard lab, Palo Alto, CA, USA, RPT. No. HPL-90-17, 22 pp., Mar. 2002.

9- Additional References

- 10- Jacobs, D, Kastelic F; *Database Manager Database Event Monitor*, IBM Technical Disclosure Bulletin, Sep. 2002.
- 11- Jonathan L, physical database design and the strategic, Publishers ,Inc New York, 2004.