Syrian Arab Republic		الجمهورية العربية السورية
Ministry of Higher Education	SVU الجامعــة الافتراضيــة السوريــة SYRIAN VIRTUAL UNIVERSITY	وزارة التعليم العالـــــي
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:

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 Work			

ILO Code	ILO	Intended Results	Assessment Type				
			ISC	PW	Ex	PF2F	Rpt

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.