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|  | Hashemite University |  |
| | Prince Al-Hussein bin Abdullah II Faculty for Information Technology | |
| | Department of Computer Information Systems | |

Course Syllabus

Year: 2020-2021

Semester: (1)

| Course No. | Course Title | Designation | Prerequisite | Co-requisite | Credit Hours .Lectures /Lab |
|------------|--------------------------------------|-------------|----------------------|--------------|--------------------------------|
| 151002241 | Introduction to database systems Lab | Required | 151002240 concurrent | - | 1 / 0 |

| Instructor Name | E-mail | Office No. | Office ext. | Office Hours |
|------------------|---------------------|-------------------------|-------------|--------------------------|
| Randa Obeidallah | Randa.ali@hu.edu.jo | 3 rd floor 4 | 4628 | Sun, Tue, Thu (10-11) |
| Hasan Al Da'jah | hidhaim@hu.edu.jo | 3 rd floor 7 | - | TBA |

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| Coordinator's Name: | Hasan Idhaim |
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| Course Description | This course is a complement to the introduction to the database systems course. It aims to provide the students by a complete set of skills required to develop database systems using the ORACLE programming language which includes programming in the PL/SQL environment and writing programs using SQL. In addition, it includes exercises and practical applications which better suits the subjects covered in the introduction to the database systems course |
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| a) Textbook(s): |
| 1. Elmasri R. and Navanthe S. B., "Fundamentals of Database Systems", 6th edition, Addison Wesley. |
| b) Additional References: |
| 1. Recommended references/worksheets will be advertised in lectures and on Moodle during the semester |
| 2. Alice Rischert, "Oracle SQL by Example" / 4th edition |

| Course Learning Outcomes CLOs |
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| 1. Demonstrate the use of Oracle SQL command editor. (2) |
| 2. Illustrate Data Definition Language (DDL) and Manipulation Language (DML) clauses. (2) |
| 3. Define Integrity Constraints (Check, Foreign Key, Column, and Table Constraints), Aggregate (group), Functions, nested query and Views. (2,3,5) |
| 4. Explain the use of PL/SQL programming and procedures. (2,3,5) |
| Addressed Student Learning Outcomes (SLOs) |
| 2,3 and 5 |

| Topic Details | CLO number | Reference | No. of Weeks | Contact *hours |
|---|------------|-------------------------|--------------|----------------|
| 1. Introduction to ORACLE SQL commands | 1 | Explained in Class | 1 | 2 |
| 2. Data Definition Language DDL(Create, alter, and drop schema objects) | 2 | Ch 4/ Worksheet | 2 | 4 |
| 3. Data Manipulation Language DML(Insert, update, and select) | 2 | Ch 4/ Worksheet | 2 | 4 |
| 4. SQL UNION, JOIN, and nested query | 3 | Ch 4 and Ch5 /Worksheet | 2 | 4 |
| 5. Aggregate(group) , Functions(count, max, min, sum, and etc...functions) | 3 | Ch 5/ Worksheet | 3 | 6 |
| 6. Integrity Constraints(Check, Foreign Key, Column, and Table Constraints) | 3 | Ch 5/ Worksheet | 2 | 4 |
| 7. Programming in PL/SQL(Block and Cursor) | 4 | Worksheet | 2 | 4 |
| Total | | | 14 | 28 |

| Assessment method | Grade | Comments |
|--------------------|-------|------------------------------|
| Mid-term Exam | 40% | Covers topics 1,2, 3,4 and 5 |
| Projects / Quizzes | 20% | TBA |
| Final Exam | 40% | Covers all topics |
| Total | 100% | |