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

Course Syllabus

Year: 2018-2019 **Semester: (1)**

Course No.	Course Title	Designation	Prerequisite	Co-requisite	Credit Hours Lectures /Lab.
151002240	Introduction to Database Systems	Required	151001250	-	3 / 0

Instructor Name	E-mail	Office No.	Office Ext.	Office Hours
Dr. Emad E. Abdallah	emad@hu.edu.jo	326	5010	Sun, Tue, Thu (11-12)
Dr. Fairouz Hussein	fairouzf@hu.edu.jo			
Dr. Esraa Shdefat	esraa@hu.edu.jo			
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Coordinator's Name:	Dr. Fairouz Hussein

Course Description	Introduction to Database Management Systems will concentrate on the principles, design, implementation and applications of database management systems. The course aims to provide students with a foundation in data management concepts and database systems. It includes representing information with the relational database model, manipulating data with an interactive query language (SQL) and database programming, database development.

a) **Textbook (s):**
1. Elmasri R. and Navanthe S. B., "Fundamentals of Database Systems", 5th & 6 edition, ISBN (0-805317554), Addison Wesley.
b) Additional References:
1. Silberschatz, Korth and Sudarshan, "Database System Concepts", 4th edition, Mc Graw Hill, 2002.
2. Thomas Connolly et. al., "Database Systems, A Practical Approach to Design, Implementation and Management", Addison Wesley, 1996.

Course Learning Outcomes CLOs
1. **Understand** a theoretical knowledge and practical experiences in the fundamental aspects of database design and implementation (1,2)
2. **Develop** an enterprise data model that reflects the organization's fundamental business rules (2,5)
3. **Explain** conceptual design methodologies for a database and learn about architectures and environment of database management system (1,3)
4. **Apply** normalization techniques (1)
5. **Develop** and refine the conceptual data model, including all entities, relationships, attributes, and business rules (1,2)
Addressed Student Learning Outcomes (SLOs)
1,2,3,5

Topic Details	CLO number	Reference	No. of Weeks	Contact hours*
1. Databases and Database Users	1	1	2	6
2. SQL: Schema Definition, Constraints, Queries (DDL, DML)	2	2, 3	3	9
3. The Relational Data Model and Relational Database Constraints	2	4	2	6
4. Data Modeling Using the Entity-Relationship (ER) Model	3	5	2	6
5. The Enhanced Entity-Relationship (EER) Model	6	6	1	3
6. Relational Database Design by ER and EER-to-Relational Mapping	5	7	2	6
7. Functional Dependencies and Normalization for Relational Databases	4	8	3	9
Total			15	45

Assessment method	Grade	Comments
First Exam	25%	Covers Chapters 1,2,3,4
Second Exam	25%	Covers Chapters 5,6,8
Assignments	10%	TBA
Final Exam	40%	Covers all topics
Total	100%	