جامعة الملك سعود

كلية الدراسات التطبيقية وخدمة المجتمع

الفصل الدراسي الثاني 1436 / 1437هـ خطة مقرر 311 عسب

**GC311 Data base Concepts**

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| --- | --- | --- | --- | --- | --- |
| **أستاذة المقرر** | **أوقات المحاضرات** | **الساعات المكتبية** | **المكتب** | **البريد الإلكتروني** | **الموقع الإلكتروني** |
| ساره الشعلان | الأحد 12-1 تمارين  الإثنين 10-12 محاضرة  الخميس 1-3 عملي |  | مبنى 26  معمل2 | saalshalan@ksu.edu.sa | http://fac.ksu.edu.sa/saalshalan |

**Reference**:

* Handouts & lecture notes
* Text Book : Elmasri and Navathe, “Fundamentals of Database Systems”, 5th Edition, Pearson, 2007

**Course Description:**

Data base concepts course will cover the following topics:

|  |  |
| --- | --- |
| **Week No.** | **Topic** |
| 1 | --- |
| 2 | Database and database users |
| 3 | Database system concepts and architecture |
| 4,5,6,7 | The relational data model and SQL (Structured Query Language) |
| 8,10 | Relational Algebra |
| 11,12 | Data modelling using the Entity-Relationship model |
| 13 | ER to Relational Mapping |
| 14,15 | Functional dependencies and relational database normalization |

**Course Objectives:**

This course requires the student to demonstrate the following:

* Design, implement and evaluate a computer-based Database system, process, component, or program to meet desired needs.
* Analyze a database problem, identify and define the computing requirements appropriate to its solution.
* Analyze the local and global impact of computing on individuals, organizations and society.
* Use current techniques, skills and tools necessary for computing practices.
* Recognize the need for engaging in, continuing professional development.
* Function effectively on teams to accomplish a common goal.
* Understand processes that support the delivery and management of information systems within a specific application environment.
* Apply information systems theory in the implementation of database software applications in a way that demonstrates software engineering framework.
* Identify steps in Database design and manipulation such as
  + Types of Database modelling.
  + Techniques of Database design.
  + Managing data within databases using SQL language.
  + Database optimization using Normalization techniques.
  + Creating and manipulating databases on relational database management systems (RDBMS).

**Grading Policy:**

* First Mid 10%
* Second Mid 15%
* Quizzes 15%
* Assignments 5%
* Project 10%
* Lab 5%
* Final Exam 40%

**Class Rules:**

* Please check the instructor’s website for course material and announcements.
* Attendance is very important if you miss class more than 25% you will be forbidden to enter the final exam
* If you’re late you may attend but you will be considered absent.
* If you miss one of the major exams you will be not excused unless the instructor accepts your formal medical report.
* Copied assignment will be marked by zero.
* Late assignment will not be accepted.