جامعة الملك سعود

كلية الدراسات التطبيقية وخدمة المجتمع

الفصل الدراسي الأول 1438 / 1439هـ خطة مقرر 312 عسب

**GC 312 Database Management Systems**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **أستاذة المقرر** | **أوقات المحاضرات** | **الساعات المكتبية** | **المكتب** | **البريد الإلكتروني** | **الموقع الإلكتروني** |
| ساره الشعلان | الإثنين 10-11 (تمارين)  الإثنين 11-1 (عملي)  الثلاثاء 8-10 | الإثنين 9-10 | مبنى 26  مكتب2- الدور الأرضي | saalshalan@ksu.edu.sa | http://fac.ksu.edu.sa/saalshalan |

**Reference**:

* Handouts & lecture notes
* Text Book: R. Elmasri and S.Navathe, Fundamentals of Database Systems.

**Course Description:**

Databases represent a fundamental subject in computer science and information technology today. Databases are used everywhere in organizations to manage data assets. The objective of this course for the students are:

Apply Advanced data modeling concepts: Advanced Relational data modeling, Object-Oriented data modeling; Apply Database Design Theory, Produce The Physical design of databases ,Check Database Integrity; Apply Concurrency Control: concurrency problems, concurrency approaches; Apply Database Recovery, Recovery solutions and approaches; Implement Database Security, Select the appropriate DBMS.

**Course Plan:**

|  |  |
| --- | --- |
| **Week** | **Topics** |
| **1** | **-** |
| **2** | Advanced relational data modeling |
| **3** | Relational Database Design by ER- and EER-to-Relational Mapping |
| **4** | Object-Oriented Data Modeling |
| **5** | Disk Storage, Basic File Structures, and Hashing |
| **6** | Midterm 1 Exam |
| **7** | Indexing Structures for Files |
| **8** | Introduction to Transaction Processing Concepts and Theory |
| **9** | Concurrency Control Techniques |
| **10** | Database Recovery Techniques |
| **11** | Midterm 2 Exam |
| **12** | Database Security |

**Grading Policy:**

* First Mid 15% -6 week Tuesday
* Second Mid 15% - 11week Tuesday
* Two Quizzes 10% - 6 week and 11 week, respectively Monday
* Tutorial 10%
* Lab Work 10%
* 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.
* Lab work requires your attendance. It is not a group work therefore you need to study before the lab time to be able to finish the required assignments. Please keep a flash memory with you to save your work.
* your homework should be **labeled** with these information:
  + Name
  + ID
  + Tutorial number
  + Course name
  + Section
* This course requires constant studying. If you have any questions please do not hesitate to contact me.
* Copied homework will be marked by zero.
* Late homework will not be accepted.