جامعة الملك سعود

كلية الدراسات التطبيقية وخدمة المجتمع

الفصل الدراسي الثاني 1438 / 1439هـ خطة مقرر 312 عسب

**GC 312 Database Management Systems**

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| **أستاذة المقرر** | **أوقات المحاضرات** | **الساعات المكتبية** | **المكتب** | **البريد الإلكتروني** | **الموقع الإلكتروني** |
| ساره الشعلان | الإثنين 10-11 (تمارين)  الإثنين 11-1 (عملي)  الثلاثاء 8-10 | الأحد 9-10  الثلاثاء 11-12 | مبنى 26  مكتب2- الدور الأرضي | saalshalan@ksu.edu.sa | http://fac.ksu.edu.sa/saalshalan |

**Reference**:

* Handouts & lecture notes
* Text Book: Silberschatz and Hank Korth, Database System Concepts.

**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:

* Understand concepts and issues associated with designing relational databases using higher level normal forms and multivalued dependencies.
* Understand issues related to data storage including buffer management, File Structure, Indexing and Hashing.
* Understand issues related to query processing and Optimization.
* Understand transaction management including Concurrency Control and Recovery System.
* Be introduced to different Database System Architectures.
* Be introduced to topics such as Data Warehousing, Data Mining, and Information Retrieval.

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**Course Plan:**

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| **Week** | **Topics** |
| **1** | **-** |
| **2,3** | Relational databases design using higher level normal forms and multivalued dependencies |
| **4** | Data storage, buffer management and File Structure |
| **5,6** | Indexing and Hashing |
| **7** | Query processing and Optimization |
| **8** | Introduction to Transaction Processing Concepts and Theory |
| **9** | Concurrency Control Techniques |
| **10** | Database Recovery Techniques |
| **11** | Database System Architectures |
| **12** | Data warehousing and data mining |
| **13** | Information retrieval |

**Grading Policy:**

* First Mid 15% -7th week Monday
* Second Mid 15% - 11th week Monday
* Two Quizzes 10% - 6th week and 10th week, respectively Monday
* Tutorial 10%
* Lab & Research 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.
* 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.