

Sub.	Course Description – توصيف مقرر دراسي	الموضوع	 <b>كلية المعرفة</b> ALMAAREFA COLLEGE
Date		التاريخ	

Course Code & No	INFO 232	211نظم	رقم المقرر ورمزه
Course Name	Database Systems	نظم قواعد البيانات	اسم المقرر
Credit Hours	3 (3 + 0 + 0)	( 0 + 0 + 3 ) 3	عدد الساعات المعتمدة
Pre-requisite	INFO 201 and COMP 211	201 نظم و 211 حاسب	المتطلب السابق

General Description	توصيف عام
<p>Introduction to database systems; database modeling concept; the relational model and algebra; Structured Query Language; physical database design; modern database systems; advanced database systems; functional dependencies and normalization; and, database functionality and services.</p>	

Course Objectives	أهداف المقرر
<ul style="list-style-type: none"> <li>• Understand what a database system is.</li> <li>• Learn the principles and issues in database design and implementation.</li> <li>• Recognize the different types of database systems.</li> <li>• Understand the basic database modeling concepts.</li> <li>• Understand the relational database model.</li> <li>• Write SQL programs.</li> </ul>	

Course Outlines	مفردات المقرر

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<ul style="list-style-type: none"> <li>• Introduction to database systems.</li> <li>• Motivation for database systems.</li> <li>• Storage systems.</li> <li>• Database applications, facilities, and architecture.</li> <li>• Basic database modeling concepts.</li> <li>• Entity-relationship modeling.</li> <li>• Schema deviation.</li> <li>• The relational model and algebra.</li> <li>• SQL definitions, manipulations, access center, and, embedding.</li> <li>• Physical database design.</li> <li>• Estimation of workload and access time, logical Inputs/Outputs, distribution.</li> <li>• Object-oriented databases.</li> <li>• Extended relational databases.</li> <li>• Distributed database systems.</li> <li>• Active, deductive, parallel, and federated database systems.</li> <li>• Files, structures, and access methods.</li> <li>• Reliability and query processing.</li> </ul>	
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<b>References</b> <ul style="list-style-type: none"> <li>• Ramakrishnan, R. and Gehrke, J., <b>Database Management Systems</b>, 3<sup>rd</sup> edition, 2003, McGraw Hill.</li> <li>• Elmasri, R. and Navathe, S., <b>Fundamentals of Database Systems</b>, 6<sup>th</sup> edition, 2010, Addison-Wesley.</li> </ul>	<b>المراجع</b>
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