

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

Course Code & No	INFO361	361نظم	رقم المقرر ورمزه
Course Name	Operations Research	بحوث العمليات	اسم المقرر
Credit Hours	3 (3 + 0 + 0)	(0 + 0 + 3) 3	عدد الساعات المعتمدة
Pre-requisite	BUSN 101 and MATH 251	دار 101 و رياض 251	المتطلب السابق

<b>General Description</b>	توصيف عام
<p>This course aims at introducing students with: Introduction to operations research and applied management science as methods for decision making. Mathematical modeling; linear programming; integer programming; network models; and, inventory models.</p>	

<b>Course Objectives</b>	أهداف المقرر
<ul style="list-style-type: none"> <li>Recognize operations research models towards solving business problems and making managerial decisions.</li> <li>Analyze instances where operations research methods are used.</li> <li>Design proper solutions for different business problems.</li> <li>Demonstrate the ability to work within a team.</li> <li>Evaluate software applications for solving operations research problems.</li> </ul>	

<b>Course Outlines</b>	مفردات المقرر
<ul style="list-style-type: none"> <li>Mathematical modeling.</li> <li>Linear programming.</li> <li>Minimization problems.</li> <li>Objective function.</li> <li>Decision variables.</li> <li>Optimal solution.</li> <li>Feasible solution.</li> <li>Network models.</li> <li>Transportation problem.</li> <li>Assignment problem.</li> <li>Traveling salesman problem.</li> <li>Shortest path problem.</li> <li>Minimal spanning tree problem.</li> <li>Production lot size model.</li> </ul>	

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<ul style="list-style-type: none"> <li>Planned shortage model.</li> <li>Safety stock levels</li> </ul>	
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<b>References</b>	<b>المراجع</b>
<ul style="list-style-type: none"> <li>Introduction to Management Science (11th Edition) 2014, by Bernard W. Taylor</li> </ul>	