


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

Course Code & No	IE312		رقم المقرر ورمزه
Course Name	Industrial Operations Management-2		اسم المقرر
Credit Hours	3 (3+2+0)		عدد الساعات المعتمدة
Pre-requisite	IE311		المتطلب السابق

General Description	توصيف عام
Aggregate planning; machine scheduling; line balancing; JIT and lean operations; Supply chain management; Decision making methods.	

Course Objectives	أهداف المقرر
Introduce to the students the advanced operation management functions during the production process in production system.	
<p><b>By the end of the course, each student should be able to</b></p> <ul style="list-style-type: none"> <li>Plan aggregate plan of operations</li> <li>Develop operation schedules</li> <li>Design logistic process</li> <li>Develop just in time production systems</li> <li>Take managerial and economic decisions for operating production system</li> </ul>	

Course Outlines	مفردات المقرر
<ul style="list-style-type: none"> <li>Aggregate planning: what is aggregate planning? Aggregate planning strategies, mathematical approaches to planning, comparison of aggregate planning methods.</li> <li>Short-term scheduling: scheduling issues, sequencing jobs, finite capacity scheduling, and theory of constraint introduction.</li> <li>Supply chain management: strategic importance of supply chain management, make or buy decisions, vendor selection, logistic management, benchmarking supply chain.</li> <li>Just-in-time production systems: goals of just-in-time production system, JIT in layout and inventory management, Kanban card calculations, 5Ss.</li> <li>Decision making tools: fundamentals of decision making, decision tree, multi criteria decision making.</li> </ul>	

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References	المراجع
<p><b>Required Textbooks</b>  Operations Management, by J. Heizer and B. Render, 11th Ed., Prentice Hall (2014).</p> <p><b>Essential References Materials</b>  Production Planning and Industrial Scheduling, Examples, Case studies, and applications. By D. Sule 2nd edition, CRC press, (2008).</p>	