

Course title and code	IE 314 Industrial Operations Management-II 3(3,1,0)									
Catalog Data										
Prerequisite	IE 214									
Co-requisites	IE 222									
Level	8									
Textbook	Operations Management, by J. Heizer and B. Render, 10 th Ed., Prentice Hall (2010).									
Reference	Production Planning and Industrial Scheduling, Examples, Case studies, and applications. By D. Sule 2 nd edition, CRC press, (2008).									
Learning outcomes Objectives	1) Understand industrial engineering and operations management 2) Understand aggregate planning strategies 3) Understand short term scheduling, theory of constraints 4) Understand the concept related to assembly line balancing 5) Understand supply chain management 6) Understand philosophy of just-in-time production system 7) Understand decision making tools and their application in operations management 8) Work in teams and communicate effectively through class discussions and presentations									
Topics to be covered:	Topics to be covered									
	List of Topics			No of Weeks	Contact hours					
	Aggregate planning: what is aggregate planning? Aggregate planning strategies, mathematical approaches to planning, comparison of aggregate planning methods.			(3)	[12]					
	Short-term scheduling: scheduling issues, sequencing jobs, finite capacity scheduling, and theory of constraint introduction.			(3)	[12]					
	Assembly-line balancing: why line balancing, approach for line balancing			(2)	[8]					
	Supply chain management: strategic importance of supply chain management, make or buy decisions, vendor selection, logistic management, benchmarking supply chain.			(3)	[12]					
	Just-in-time production systems: goals of just-in-time production system, JIT in layout and inventory management, kanban card calculations, 5Ss.			(2)	[8]					
	Decision making tools: fundamentals of decision making, decision tree, multi criteria decision making, AHP introduction.			(1)	[4]					
Total contact hours per semester	<table><tr><td>Lecture: 42</td><td>Tutorial: 14</td><td>Laboratory: 0</td><td>Practical/Field</td><td>Other</td></tr></table>					Lecture: 42	Tutorial: 14	Laboratory: 0	Practical/Field	Other
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Schedule of Assessment Tasks for Students During the Semester										
	Assessment	Assessment task (eg. essay, test, group project, examination etc.)		Week due	Proportion of Final Assessment					
	1	Midterm1		Within the 7 th week	15%					
	2	Midterm2		Within the 13 th week	15%					
	3	Attendance and class participation and home work		Continuous evaluation	10%					
	4	Quiz		Surprise quizzes	10%					
	4	Lecture/Tutorial assessment		Each lecture	10%					
	5	Final Exam		As scheduled by the registrar	40%					
Project work	Independent group projects for case studies covering the course topic									
Computer Usage	Computer use covers case studies									
Estimated Category Content	3 credit hour or 100%.									
Prepared by	Ateekh-Ur-Rehman									
Preparation Date	10/5/2012G									