

Course title and code	IE 214 Industrial Operations Management-I 3(3,1,0)									
Catalog Data										
Prerequisite										
Co-requisites	STAT 324									
Level	6									
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 productivity and utilization concept 3) Understand forecasting and use several forecasting techniques 4) Understand capacity planning 5) Understand the function of inventory and formulate basic inventory models 6) Understand material requirement planning concept 7) Work in teams and communicate effectively through class discussions and presentations									
Topics to be covered:	1 Topics to be Covered									
	List of Topics			No of Weeks	Contact hours					
	Introduction to Industrial Engineering & Operations Management: what is operations management? Differences between goods and services, productivity measurement, productivity variables, new trends in operations management			(2)	[8]					
	Forecasting: what is forecasting? Types of forecast, importance of forecasting, forecasting approaches, correlation analysis, monitoring & controlling forecast			(3)	[12]					
	Capacity planning: Design and effective capacity, break even analysis, bottleneck analysis			(3)	[12]					
	Inventory management: functions of inventory, inventory models, probabilistic models, reorder point and safety stock,			(3)	[12]					
	Material requirement planning: MRP structure, bill of material, time phased planning, lot sizing techniques.			(3)	[12]					
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									