Programme Name: MMS   Semester: IV

Name of the subject: **Operations Applications and Cases**

Maximum marks:100   No. of Sessions: 14

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Weblink:

Learning Objectives:

1. To enable a student to understand the complex processes and operations of product & service industry
2. To apply various techniques, tools & practices in different situations to design & execute system in best manner
3. To develop a model as an extension from academic to practical complex real-life situation.

Reference Books:

Operations Management	Chase & Jacob
	Gaither
	Samson & Singh
	William Stevenson
	L C Jhamb

Plan:

Session No	Topics to be covered	Books referred/ Recommended/ References- Print/Articles/ News/Research papers/ Online database/ Software /Simulations used	Learning outcomes	Evaluation of Students understanding by MCQs, Quiz, Short Test
1	Application of Operations Management in Complex situations, Resource planning,	CHAPTER 14, Operations Management: An Integrated Approach, 5th Edition by Nada R. Sanders, R. Dan Reid		Class Test
2	Process analysis review	CHAPTER 8, Operations Management, 3rd Edition by B. Mahadevan	Process flow-charting Process analysis Process redesign	
3	Applications in production & retail sector, practical examples of MRP-I & II on Excel	Excel Based Problems		
4	Applications related with plant, investment, replacement &maintenance, Robotic process and financial evaluation, optimum period of replacement on excel	https://www.ey.com/Publication/vwLUAssets/ey-robotic-process-automation-implementation/$File/ey-robotic-process-automation-implementation.pdf	Risk and control considerations within robotic process automation implementations	
5	Capacity Planning & Aggregate Planning, RCCP	Excel Based Problems		
6	Application of learning in tendering &bidding, cost	https://www.tendertool.com/freight-e-tendering/ https://www.smartsheet.com/excel-construction-project-		

		aspects, examples on excel	management-templates		
7	Work Study, Method Study, Balanced scorecard	http://www.scielo.br/pdf/rcf/2016nahead/1808-057X-rcf-201602200.pdf https://www.hbs.edu/faculty/Publication%20Files/10-074_0bf3c151-f82b-4592-b885-cdde7f5d97a6.pdf	Value added & non value-& How to measure that		
8	Lean Tools	Lean Manufacturing Tools, Techniques and how to use them by Willium Feld	How basic elements of lean eliminate waste, create flow and continuously improve operations. Construct and interpret a VSM	Quiz, Case study	
9	QFD, DFD, cost Price analysis	Assignment & Problems	Depiction of information flow and quality check points in a diagram		
10	Inventory Control Discount Policy	Problems and cases			
11	Sequencing Techniques	Problems	Prioritized jobs assigned to a resource		
12	Drum- Buffer-Rope	http://www.lean-manufacturing-japan.com/scm-terminology/dbr-drum-buffer-rope-theory.html https://www.pmi.org/learning/library/drum-buffer-rope-critical-chain-buffering-8526	to understand the flow of a supply chain		
13	Value Engineering	https://www.google.co.in/url?	reduce project		

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14	PQCDSM, Time Based Competition	https://books.google.co.in/books?id=K9aYpFdFONUC&pg=PA171&dq=PQCDSM+in+book&hl=en&sa=X&ved=0ahUKEwiJ7uP3vqbfAhWbbisKHWXYAgQQ6AEIPDAE#v=onepage&q=PQCDSM%20in%20book&f=false	To confirm daily activities are advancing PQCDSM otherwise its pure MUDA
15	Uses in insurance, BPO/KPO, entertainment, production, etc	https://www.researchgate.net/publication/302402335_Operations_of_Insurance_Companies https://www.capgemini.com/wp-content/uploads/2017/07/b_Knowledge_Process_Outsourcing.pdf https://www.capgemini.com/wp-content/uploads/2017/07/b_Knowledge_Process_Outsourcing.pdf	

Practical Approach   : Other activities

Sr. No.	Activity Name	Topic Covered	Learning outcomes	Source
1	Role Play			
2	Industry Visit			
3	Academic Projects	Mini Project on Lean Tools	When & Where to apply which lean tools	
4	Book Review			
5	Group Discussion			
6	Business Quiz / Business News sharing	Work Study , Method Study, Lean Tools	Dependency of productivity on performance of Men, Machines & Materials Designing of Cost & Time Effective method and procedure	
7	Videos / Simulation			
8	Use of Software's and Labs	Excel-MRP, Capacity Planning	Factors influencing resources planning	
9	Any other activity			

Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences: -

Case studies from emeranld insight & Elsevier publications going to be discussed and allocated to the students to present

Use of ICT for effective teaching with Learning Management Systems (LMS), E-Learning resources etc.: -

Excel to solve problems on
- MRP
- Capacity Planning
- Aggregate Planning

Innovation and Creativity in teaching- learning: -

Suggestions (if any) to students on subject related Certificate/Diploma or Add-on program: -

Students are advised to appear for NPTEL certification on Operations Management

Evaluation:

Internal:

Component	Details	Marks
Class Test	20 marks class test: 15 Marks MCQs & 5 Marks problem	20
Presentation	Case study analysis and presentation	10
Case Study	Group discussions	5
Participation		
Others	Attendance	5

Signature of Faculty   **Signature of the Co-ordinator**