

Manufacturing and Services Operations Management

Course Code	21BA2T4	Year	I	Semester	II
Course Category	Core	Branch	Business Administration	Course Type	Theory
Credits	4	L-T-P	4-0-0	Prerequisites	Nil
Continuous Internal Evaluation	30	Semester End Evaluation	70	Total Marks	100

Course Outcomes

Upon successful completion of the course, the student will be able to:

CO1	Make use of the concepts strategically and critically review current developments in the area of Manufacturing and Services Operations Management.	L3
CO2	Analyse the concepts of scheduling and sequencing for manufacturing and services operations.	L4
CO3	Identify how operations management are integrated with Aspects of Quality management.	L3
CO4	Examine the importance of managing organizational resources for Decision Making.	L4
CO5	Analyse the aspects of services how they are integrated to the concept of manufacturing and operations management.	L4

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (3-High, 2-Medium, 1-Low)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2
CO1	2	2	3	-	3	-	3	-	3	-	-	3	3
CO2	2	2	3	-	3	-	3	-	3	-	-	3	3
CO3	2	2	3	-	3	-	3	-	3	-	-	3	3
CO4	2	2	3	-	3	-	3	-	3	-	-	3	3
CO5	2	2	3	-	3	-	3	-	3	-	-	3	3

SYLLABUS

Unit No.	Contents	Mapped CO
I	Introduction: Overview & Definition of Production and Operations Management- Nature and Scope of Production and Operations Management – Role & responsibilities of the production manager - Types of Manufacturing Processes and Product Design, CAD/CAM.	CO1
II	Production Planning and Control: Stages in PPC –PERT & CPM (No Project Crashing Problems) – PPC in Mass, Batch, and Job Order Manufacturing- Aggregate planning and Master Scheduling, MRP, CRP. Plant Location & Layout Planning- Factors influencing location - types of layouts. Capacity Planning – Optimal Production Strategies: Scheduling and Sequencing of Operations (Theory only)	CO1 CO2
III	Quality Management & Productivity: Basic concepts of quality, dimensions of quality, Juran's quality trilogy, Deming's 14 principles, Quality improvement, ISO 9000-2000, TQM, Six Sigma – Statistical Quality Control	CO1 CO3

	- Acceptance Sampling. Productivity —factors affecting productivity, measurement & improvements in productivity - Work Design: Method Study and Work Measurement	
IV	Purchase, Stores & Inventory Management: Purchase functions and Procedure - Objectives of Stores Management – Requirements for efficient management of stores – Safety Stock- Inventory Control – Techniques of Inventory Control – ABC, VED, HML, FSN analysis, Value Engineering.	CO1 CO4
V	Service Operations Management: Understanding the nature of services- Aligning service strategy and service competitiveness- Service design, development & automation- Managing human resource in services-Service quality GAP model, Service facility location techniques- Demand management in services-Queue management- Service inventory and supply chain management.	CO1 CO5
Case Study Compulsory. Relevant cases have to be discussed in each unit.		

Learning Resources	
Text Books:	
<ol style="list-style-type: none"> 1. Panner Selvam (2012), “Production and Operation Management”, Prentice Hall of India, New Delhi. 2. Aswathappa K., Shridhara K. (2012), “Production & Operation Management”, Himalaya Publishing House, New Delhi. 	
Reference Books:	
<ol style="list-style-type: none"> 1. Srinivasan G. (2010), “Quantitative Models in Operations and Supply Chain Management” PHI Learning, New Delhi. 2. Ajay K Garg (2012), “Production and Operation Management”, TMH, New Delhi. 3. Deepak Kumar Bhattacharyya (2012), “Production & Operation Management”, University Press, New Delhi 4. Alan Muhlemann, John Oakland, Jasti Katyayani (2013), “Production and Operation Management”, Pearson, New Delhi. 5. David. W. Parker (2012), “Service Operations Management: The Total Experience” Second Edition, Edward Elgar Publishing, New Delhi. 	
e- Resources & other digital material:	
<ol style="list-style-type: none"> 1. https://nptel.ac.in/courses/112/107/112107238/ 2. https://nptel.ac.in/courses/110/107/110107141/ 3. https://www.wisdomjobs.com/e-university/production-and-operations-managementtutorial-295/historical-evolution-of-production-and-operations-management-9434.html 4. http://www.zeepedia.com/read.php?deming_cycle_and_quality_trilogy_jurans_three_basi_steps_to_progress_total_quality_management_tqm&b=59&c=15 5. http://dl.icdst.org/pdfs/files/7effc92a3136bc02d3041ab3399edce4.pdf 	