

Technology & Operational Strategy			
Course Code	20MBA302	CIE Marks	40
Teaching Hours/Week (L:T:P)	3:0:2	SEE Marks	60
Credits	04	Exam Hours	03
<b>Course Objectives</b>			
<ol style="list-style-type: none"> <li>1. To acquaint the student with the basic management principles with respect to production and operations management.</li> <li>2. To Familiar the student with different types of Production Systems.</li> <li>3. To explain the students regarding various techniques used in Operations Management.</li> </ol>			
<b>Module-1 Introduction to Production and Operation Management (POM)</b>			<b>7 hours</b>
Introduction Operations Management: Meaning, Definition, Scope and Functions. Difference Between Production and Operations Management. Management Guru's and their Contribution. The Roles and Functions of Operations Manager. Industry 4.0; Productions and Operations Management in Indian Context.			
<b>Module -2 Process Management Mapping</b>			<b>9 hours</b>
Process Mapping, Process Flow charts, Ishikawa Diagrams, Fishbone Diagram and Cause and Effect Relationship, 5M, 8P, and 4S Systems, Theory Z Approach.			
<b>Module-3 Lean Manufacturing</b>			<b>9 hours</b>
Concept of Lean Manufacturing; meaning of lean manufacturing; History of Lean Operations, Types of Waste, "5S" Technique of Eliminating the Waste, Lean Operations in the service sector, Role of Leadership, Lean Operations and Just In Time(JIT).			
<b>Module -4 Production System</b>			<b>9 hours</b>
Production System: Meaning, Types- Batch and Continuous Production, TPS: Introduction, Overview of Toyota Production Systems – Focused Areas, Techniques: 5S, JIT, JIDOKA, KANBAN, KAIZEN, POKAYOKE, Toyota Production Systems.			
<b>Module -5 Total Quality Management(TQM)</b>			<b>9 Hours</b>
Evolution of quality; Concept, Meaning and Features of TQM, Eight building blocks of TQM; TQM tools. Benchmarking: Concepts, Meaning, Benefits, Elements, Reasons for benchmarking, Process of benchmarking, FMEA; Quality Function Deployment (QFD) – House of Quality, QFD Process, Benefits, Taguchi Quality Loss Function, Quality Circles. Total Productive Maintenance (TPM) – Concept and need.			
<b>Module-6 Quality Systems</b>			<b>7 Hours</b>
<b>ISO:</b> ISO role; Functions of ISO, Quality System Family Series ISO 9000; ISO 14000; ISO21000. <b>Six Sigma:</b> Features of Six Sigma, Goals of Six Sigma, DMAIC, Six Sigma implementation. <b>Supply Chain and Operations:</b> Supply Chain "KEIRETSU", Core Competency, Relationship of Operations and Supply Chain; Relationship of Purchasing and Supply Chain; Sources, Service Quality and Supply Chain.			
<b>Course Outcomes:</b>			
At the end of the course the student will be able to:			
<ol style="list-style-type: none"> <li>1. Acquire the knowledge about the concepts of production and operation management</li> <li>2. Demonstrate the basic concepts of process mapping</li> <li>3. Evaluate the importance of Lean Manufacturing</li> <li>4. Develop strategies of Total quality management</li> <li>5. Understand the roles of ISO standards and production system</li> </ol>			
<b>Practical Component:</b>			
<ul style="list-style-type: none"> <li>• Students should understand process management</li> <li>• Students to visit an organization and study the quality management system</li> <li>• Students has to understand production system</li> <li>• Study the role of leader in operation management and prepare a Report</li> <li>• Students need to understand the practicality of the ISO standards</li> </ul>			

### CO-PO MAPPING

CO	PO				
	PO1	PO2	PO3	PO4	PO5
CO1	X				
CO2	X			X	
CO3	X			X	
CO4	X		X	X	X
CO5	X		X		X

#### Question paper pattern:

The SEE question paper will be set for 100 marks and the marks scored will be proportionately reduced to 60.

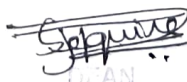
- The question paper will have 8 full questions carrying equal marks.
- Each full question is for 20 marks.
- Each full question will have sub question covering all the topics under a Module.
- The students will have to answer five full questions; selecting four full question from question number one to seven and question number eight is compulsory.
- 100 percent theory in the SEE.

#### Textbooks

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Production and Operations Management	S. N. Chari.	Mc Graw Hill.	6/e
2	Operations Management Theory and Practical	B. Mahadevan	Pearson.	3/e
3	Operations Management	Jay Heizer Barry Render, Chuck Munson, Amit Sachan	Pearson.	12/e
4	Production and Operations Management	R. Panneerselvam.	PHI	3/e

#### Reference Books

1	The Goal: Process of Improvement	Eliyahu M. Goldratt	North River Press	3/e
2	The Toyota Way	Jeffery Liker.		

  
DEAN