

Course code	TITLE OF THE COURSE			L	T	P	C
ALLIED III	OPERATIONS AND STRATEGIC MANAGEMENT			4			4
Pre-requisite	ALLIED III: OPERATIONS AND STRATEGIC MANAGEMENT			Syllabus Version			
<b>Course Objectives:</b>							
The main objectives of this course are to:							
<ul style="list-style-type: none"> <li>➤ To provide an in-depth study of the various business processes.</li> <li>➤ To analyze various operations of business system</li> <li>➤ To enable the production and operation planning of different strategy.</li> </ul>							
<b>Expected Course Outcomes:</b>							
On the successful completion of the course, student will be able to:							
1	Explain the modern operations functions and MRP in production.						K1
2	Understand product life cycle and control measures of operational system.						K2
3	Apply the concepts of basic tools of quality measurement techniques.						K2
4	Understand the maintenance system of production						K4
5	Examine the SWOT analysis of different strategies.						K2
<b>K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create</b>							

<b>UNIT –I</b>		<b>Hours - 12</b>
Operations Management – Introduction – Scope characteristics of modern operations functions – recent trends in production / operations management. Operations planning: Demand forecasting – capacity planning - capacity requirement planning - facility location - facility layout – Resource aggregate planning – Material requirements planning – Manufacturing resource planning – Economic Batch quantity.		
<b>UNIT – II</b>		<b>Hours - 15</b>
Designing of operational systems and control: Product Design, Process design - Selection - Product Life Cycle – Process Planning – Process Selection. Production Planning and Control: Introduction – Control Measures – Time study, Work study, Method study, Job Evaluation, Job Allocation (Assignment Technique), Scheduling Queuing Models, Simulation and Line Balancing – Optimum Allocation of resources – Lean Operations – JIT – Transportation Model and Linear Programming Technique (Formulation of equations only).		
<b>UNIT – III</b>		<b>Hours - 12</b>
Productivity Management and Quality Management: Measurement techniques of productivity index, productivity of employee, productivity of materials, productivity of management resources, productivity of other factors – productivity improving methods – TQM basic tools and certification – ISO standards basics. Project Management: Project planning – project life cycle – Gantt charts, PERT and CPM.		
<b>UNIT - IV</b>		<b>Hours - 9</b>
Economics of Maintenance and spares Management: Break down Maintenance – Preventive Maintenance – Routine Maintenance – Replacement of Machine – Spare Parts Management.		

<b>UNIT - V</b>		<b>Hours - 12</b>
Strategic Analysis and strategic planning Situational Analysis –SWOT Analysis – Portfolio Analysis – BCG Matrices – Stages in Strategic Planning – Alternatives in Strategic Planning- Formulation and Implementation of strategy: Strategy formulation function wise (Production Strategy, Marketing Strategy, Man Power Strategy) – Structuring of Organisation for implementation of strategy – Strategic Business Unit – Business Process re-engineering.		

<b>Reference Books</b>	
1	Richard, B. Chase, F. Robert, Jacobs Nicholas, J. Aquilano and Nitin, K. Agarwal – Operations Management for Competitive Advantage, Tata McGraw-Hill Education, Reprint 2014, 11 <sup>th</sup> Edition.
2	Arunkumar, B.K.Agnihotri, Operation Management and Information system, ShuchitaPrakashan (P) Ltd., 2016, 14 <sup>th</sup> Edition.
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<b>Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]</b>	
1	
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Course Designed By:	

<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>
<b>CO1</b>	S	S	S	S	M
<b>CO3</b>	S	S	S	M	S
<b>CO3</b>	S	M	S	S	S
<b>CO4</b>	S	S	S	M	S
<b>CO5</b>	S	M	S	S	S