

GANPAT UNIVERSITY									
FACULTY OF MANAGEMENT STUDIES									
Programme		Master of Business Administration				Branch/Spec.		Supply Chain Management	
Semester		III				Version		1.0.0.0	
Effective from Academic Year			2021-22			Effective for the batch Admitted in			June 2020
Subject code		IIIA07SCP		Subject Name		SUPPLY CHAIN PLANNING AND OPERATIONS			
Teaching scheme					Examination scheme (Marks)				
(Per week)	Lecture(DT)		Practical (Lab.)		Total		CE	SEE	Total
	L	TU	P	TW					
Credit	4	0	0	0	4	Theory	60	40	100
Hours	4	0	0	0	4	Practical	-	-	-
Pre-requisites: Basics of Management discipline									
Objectives: The goal of this subject is to cover the high-level supply chain strategy and concepts and to give students a solid understanding of the analytical tools necessary to solve supply chain problems.									
Learning Outcome:									
At the end of the course, the students will be able to: <ul style="list-style-type: none"> <li>IIIA07SCP.CO1: Understand the principles, structures, and factors influencing supply chain network design and its global dimensions.</li> <li>IIIA07SCP.CO2: Apply forecasting, aggregate planning, and coordination methods to balance demand and supply in a supply chain.</li> <li>IIIA07SCP.CO3: Analyze transportation, sourcing, and information technology strategies to enhance supply chain efficiency and responsiveness.</li> <li>IIIA07SCP.CO4: Evaluate global design, sustainability, and risk management decisions for achieving competitive and resilient supply chains.</li> </ul>									
Theory syllabus									
Unit	Content								Hrs
1	<p>Designing the Supply Chain Network: Designing distribution networks and applications to online sales : factors influencing distribution network design, design options for a distribution network, online sales and distribution network</p> <p>Network design in the supply chain: factors influencing network design decisions,framework for network design decisions,Models for facility location and capacity allocation</p> <p>Designing global supply chain networks: Impact of globalization on supply chain management,The offshoring decision: Total cost,Risk management in global supply chain, To Onshore or Offshore: Evaluation of global supply chain design decisions under uncertainty</p>								15
2	<p>Planning and Coordinating Demand and Supply in a Supply Chain: Demand forecasting in supply chain:Components of a forecast and forecasting methods,basic approach to demand forecasting, time series forecasting methods, measures of forecast errors,selecting the best smoothing constant, role of IT and risk management in forecasting.</p> <p>Aggregate planning in a Supply Chain: The Aggregate planning problem, Aggregate planning strategies, building Master production schedule, role of IT in aggregate planning</p> <p>Sales and operations planning: Planning supply and demand in a supply chain: Responding to predictable variability in the supply chain , Managing supply and demand.</p>								15

	Coordination in a supply chain: Lack of supply chain coordination and the bullwhip effect, the effect on performance of lack of coordination, obstacles to coordination in a supply chain, managerial levers to achieve coordination, continuous replenishment and vendor management inventories, collaborative planning, forecasting and replenishment,	
3	Designing and Planning Transportation Networks: The role of transportation in a supply chain, Modes of transportation and their performance characteristics, Transportation infrastructure and policies, design options for a transportation network, trade off in transportation design, Tailored transportation, the role of IT in transportation, Risk Management in transportation, Making transportation decision in practise	10
4	<p>Managing Cross Functional Drivers in a Supply Chain:</p> <p>Sourcing decisions in a supply chain: in-house or outsource, Third and fourth party logistics, using total cost to score and assess supplier, supplier selection: auction and negotiations, contracts, risk sharing and supply chain performance, design collaborations, The procurement process, designing a sourcing portfolio: tailored sourcing, risk management in sourcing</p> <p>Information technology in a supply chain: The supply chain IT framework, Customer Relationship Management, internal supply chain management, Supplier relationship management, transaction management foundation, future of IT in supply chain, risk management in IT</p> <p>Sustainability in a supply chain: The tragedy of commons, key metrics for sustainability, sustainability and supply chain drivers, closed loop supply chain,</p>	20
Practical content		
Text Books		
1	Supply Chain Management Strategy, Planning & Operation by - Sunil Chopra and Peter Meindl	
2	Logistics Management by - P. Fawcett, R. McLeish and I. Ogden	

#### Mapping of CO with PO and PSO:

Semester 3: Course Name: IIIA07SCP SUPPLY CHAIN PLANNING AND OPERATIONS							
Course outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7
IIIA07SCP.CO1	1	3	1	1	1	2	3
IIIA07SCP.CO2	2	3	1	2	2	0	3
IIIA07SCP.CO3	3	3	2	3	3	1	3
IIIA07SCP.CO4	3	3	2	3	2	1	3

Semester 3: Course Name: IIIA07SCP SUPPLY CHAIN PLANNING AND OPERATIONS			
Course outcomes	PSO1	PSO2	PSO3
IIIA07SCP.CO1	3	1	2
IIIA07SCP.CO2	3	2	3
IIIA07SCP.CO3	2	3	2
IIIA07SCP.CO4	2	2	3