INDIAN INSTITUTE OF INFORMATION TECHNOLOGY
DESIGN AND MANUFACTURING (IIITDM) KANCHEEPURAM

INTRODUCTION OF NEW COURSE

Course Title	OPERATIONS AND SUPPLY CHAIN MANAGEMENT	Course No	MAN504			
Specialization	ALL	Structure (LTPC)	3	0	0	3
To be offered for	UG / PG	Status	Core ☐		Elective ■	
Faculty Proposing the course	N.A.	Type	New ■		Modification ☐	
Date of DAC	N.A.	Members Present in DAC				
Pre-requisite	None	Submitted for approval	40th Senate			
Learning Objectives	• This course introduces the viewer to the basics of Operations and Supply Chain Management. The concepts in Operations Management are restricted to the planning and operational decisions within an organization while the supply chain concepts are for a network of organizations.					
Learning Outcomes	• The main emphasis of the course is on the basic concepts and on quantitative modeling of the various decision problems in Supply Chain Management.					
Contents of the course *(With approximate break-up of hours)*	Forecasting: Need for forecasting, Quantitative methods. (3) Facility layout and location: Qualitative aspects, Quantitative models for layout decisions, Product, process xed position, group layout, Location decisions-quantitative models. (6) Capacity and aggregate planning, Capacity measurement, Long-term and short term strategies, Aggregate planning. (3) Inventory management: Various costs in inventory management and need, Deterministic models and discounts, Probabilistic inventory management. (6) Scheduling models and applications, Scheduling in MRP system, Sequencing rules and applications, Batch production sequencing and scheduling. (4) Introduction to supply chain: Definition, complexity, key issues, Centralized vs. decentralized systems. (3) Value of information and supply chain integration: Bullwhip effect, Push-based, pull based systems. Outsourcing: Make or buy decisions. Transportation decision: Drivers of the decision, Network design decisions, Cross-docking, transshipment. (8) Distribution and logistics in supply chains: Direct shipment/intermediate storage policies, Vehicle routing models, Third-party logistics. (5) Information technology in supply chain, Enabling supply chain through IT, ERP vendor platforms, Service oriented architecture (SOA), RFID (4)					
Reference	https://nptel.ac.in/noc/individual_course.php?id=noc19-mg22					