

COURSE TITLE	OPERATIONS & SUPPLY CHAIN MANAGEMENT
COURSE CODE	04MB0231
COURSE CREDITS	3

Course Outcomes: After completion of this course, student will be able to:

- 1 Analyse the strategic role of operations and supply chains in modern businesses.
- 2 Evaluate procurement and sourcing strategies using supplier performance frameworks.
- 3 Analyze Design logistics and distribution strategies for responsive and cost-effective delivery.
- 4 Evaluate supply Assess and manage risks while integrating sustainability into supply chains.
- 5 Explore and interpret the impact of digital technologies on end-to-end supply chain performance.

Pre-requisite of course:NA

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
3	0	0	50	30	20	0	0

Contents : Unit	Topics	Contact Hours
1	Strategic Role of OSCM in the Digital Era: Evolution and scope of operations and supply chain management; Operational efficiency and supply chain responsiveness; Global supply chains and competitive advantage; SCOR model and KPI frameworks; Digital transformation and data culture in OSCM.	9
2	Procurement, Sourcing & Vendor Management: Strategic sourcing and supplier segmentation; Procurement life cycle and e-procurement platforms; Vendor selection and evaluation criteria; Supplier relationship management (SRM); Risk and compliance in sourcing.	9
3	Logistics and Distribution Strategies: Distribution network design and facility location principles; Role of 3PL, 4PL, and last-mile delivery models; Inbound vs. outbound logistics; Freight consolidation, routing, and vehicle scheduling; Use of GIS and routing software in logistics planning.	9
4	Supply Chain Risk, Resilience & Sustainability: Identification and assessment of supply chain risks; Risk mitigation strategies and supply chain resilience; Sustainability in supply chains: circular economy, green logistics; Reverse logistics and end-of-life product management; Regulatory and ethical challenges.	9

Contents : Unit	Topics	Contact Hours
5	Emerging Technologies in Supply Chain Management: Role of ERP, WMS, and TMS in supply chain integration; Applications of blockchain, IoT, and RFID; AI/ML in demand sensing and fulfilment; Supply chain visibility and control towers; Industry 4.0, smart warehouses, and autonomous logistics.	9
Total Hours		45

Textbook :

- 1 Supply Chain Management: Strategy, Planning, and Operation, Chopra, S., & Meindl, P, Pearson, 2019
- 2 Operations and Supply Chain Management, Jacobs, F. R., & Chase, R. B., McGraw-Hill., 2023

References:

- 1 Operations and Supply Chain Management, Operations and Supply Chain Management, Roberta S. Russell, Bernard W. Taylor, Venkataramanaiah Saddikuti, Pavan Kumar Gudavalleti, Wiley, 2023
- 2 Production and Operations Management, Production and Operations Management, Kanishka Bedi, Oxford Press, 2013

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery and evaluation					
Remember / Knowledge	Understand	Apply	Analyze	Evaluate	Higher order Thinking / Creative
0.00	0.00	30.00	20.00	25.00	25.00