AC –

Item No. –

As Per NEP 2020

Tolani College of Commerce (Autonomous)

Knowledge is Supreme

Title of the Course: Logistics Network Design

(Semester IV)

Programme: Bachelor of Business Administration (Logistics)

Syllabus for 4 Credit Course from the Academic Year 2024-202

Name of the Course: Logistics Network Design

Sr. No.	Heading	Particulars
1	**Description of the course :** **Including but Not limited to :**	Gain practical insights and dive into the intricacies of logistics network management by uncovering the essentials of network components, strategic design, and optimization. distribution channel efficiency, cost minimization, and effective data-driven decision-making.
2	**Vertical :**	Minor
3	**Type :**	Theory
4	**Credit**:	4 credits
5	**Hours Allotted :**	60 Hours
6	**Marks Allotted**:	100 Marks Continuous Evaluation 40 marks and Semester End Examination 60 marks
7	**Course Objectives:** 1. To identify and comprehend the essential elements of logistics networks, including facilities and distribution centres. 2. To develop skills in selecting optimal warehouse characteristics and sourcing strategies for efficient logistics network design. 3. To learn techniques to design or reconfigure logistics networks, aiming to minimise overall system costs with a focus on procurement and inventory. 4. To acquire practical insights into data collection, validation, and model optimization, emphasising the role of forecasting and information systems in transportation and logistics.	
8	**Course Outcomes**: 1. Ability to identify and categorise essential elements within logistics networks, encompassing facilities and distribution centres. 2. Ability to apply strategic decision-making for selecting optimal warehouse features and sourcing strategies to enhance logistics network efficiency. 3. Acquire skills to design or adjust logistics networks, minimising overall system costs, with a specific focus on procurement and inventory. 4. Ability to gain practical expertise in data collection, validation, and optimization, emphasising forecasting, information systems, and transportation logistics.	

9	**Module 1: Components of Logistics Network (15 Hours)**
	▸ Facilities: Plants, Vendors, Ports, Warehouses, Retailers ▸ Distribution Centers and Customers ▸ Upstream Logistics ▸ Three Models of LND: Differentiated Delivery Lead Time, Price Discount, Consolidation Hubs
	Module 2: Key Issues of Network Design (15 Hours)
	▸ Selection of Optimal Number, Location, and Size of Warehouse ▸ Determining Optimal Sourcing Strategy ▸ Date Considerations for Network Design ▸ Factors: Location of Customers, Stocking Points, Demand, Transportation and Warehousing Costs
	Module 3: Best Distribution Channels (15 Hours)
	▸ Design or Reconfigure Logistics Network ▸ Minimise Annual System-wise Costs ▸ Consider Procurement Costs ▸ Consider Inventory Carrying Costs
	Module 4: Data Collection and Model Optimization (15 Hours)
	▸ Collecting Data: Location of Customers, Stock Keeping Units, Products ▸ Forecasting Techniques and Transportation Costs ▸ Information Systems for Parameters: Engine, Mileage, Handling, etc. ▸ Data Aggregation, Heuristic Approach, Validation of Data, and Model Optimization
10	**Reference Books:** ● Kumar, K. Ravi. Logistics and Supply Chain Management in India. Springer, 2019. ● Kumar, S. Anil. Supply Chain Management: Concepts and Cases. Himalaya Publishing House, 2018. ● Raghuram, P., & Kumar, S. Anil. Logistics Management: Text and Cases. Pearson, 2014. ● Singh, Ashish Kumar, & Agrawal, Rajat. Warehousing in the Global Supply Chain. CRC Press, 2018. ● Subramanyam, A., & Deivanai, R. Distribution and Logistics Management: A Strategic Marketing Approach. Macmillan Publishers India, 2017.

<table>
<tr><td>11</td><td colspan="2">Internal Continuous Assessment: 40%</td><td colspan="2">Semester End Examination : 60%</td></tr>
<tr><td>12</td><td colspan="2">Continuous Evaluation through:
(40 marks)</td><td>1) Case Study, Class Presentation and Research Assignments
(30 marks)
2) MCQ Based Test (10 marks)</td><td>A Learner must be present for each of the sub-component</td></tr>
<tr><td rowspan="5">13</td><td colspan="4">Format of SEE Question Paper: (60 marks)</td></tr>
<tr><td>Question No.</td><td colspan="2">Nature of Question</td><td>Maximum Marks</td></tr>
<tr><td>Q-1</td><td colspan="2">Answer the following: (attempt any 2 of 3)
a)
b)
c)</td><td>15 Marks</td></tr>
<tr><td>Q-2</td><td colspan="2">Answer the following: (attempt any 2 of 3)
a)
b)
c)</td><td>15 Marks</td></tr>
<tr><td>Q-3</td><td colspan="2">Answer the following: (attempt any 2 of 3)
a)
b)
c)</td><td>15 Marks</td></tr>
<tr><td></td><td>Q-4</td><td colspan="2">Answer the following: (attempt any 2 of 4)
a)
b)
c)
d)</td><td>15 Marks</td></tr>
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Signatures of Team Members

Sr.No.	Name	Signature
1.	Ms. Amrita Nambiar	
2.	Mr. Vijay Kapoor	