



**DEPARTMENT OF MANAGEMENT STUDIES  
NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPPALLI  
TIRUCHIRAPPALLI - 620 015, TAMIL NADU, INDIA**

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<b>COURSE PLAN – PART I</b>			
<b>Course Title</b>	SUPPLY CHAIN MANAGEMENT		
<b>Course Code</b>	MB 732	<b>No. of Credits</b>	2
<b>Course Code of Pre-requisite subject(s)</b>	NIL		
<b>Session</b>	July 2023 – October 2023	<b>Section</b>	NA
<b>Name of Faculty</b>	Dr. Malolan Sundararaman	<b>Department</b>	MBA
<b>Email</b>	malolan@nitt.edu	<b>Telephone No.</b>	+91-431-2503716
<b>Name of Course Coordinator(s) (if, applicable)</b>	NIL		
<b>Course Type</b>	<input checked="" type="checkbox"/> Core course <input type="checkbox"/> Elective course		
<b>SYLLABUS</b>			
<p><b>Unit I Building a strategic framework to analyze supply chains</b>            Fundamentals of Supply Chain Management, Supply chain networks, Integrated supply chain planning, Decision phases in a supply chain, process view of a supply chain, supply chain flows, 27 Overview of supply chain models and modeling systems, Supply chain planning: Strategic, operational and tactical, Understanding supply chain through process mapping and process flow chart.</p> <p><b>Unit II Designing the supply chain network</b>            Supply chain strategies, achieving strategic fit, value chain, Supply chain drivers and obstacles, Strategic Alliances and Outsourcing, purchasing aspects of supply chain, Supply chain performance measurement: The balanced score card approach, Performance Metrics. Planning demand and supply: Demand forecasting in supply chain, Aggregate planning in supply chain, Predictable variability.</p> <p><b>Unit III Planning demand and supply in a supply chain</b>            Planning and managing inventories: Introduction to Supply Chain Inventory Management. Inventory theory models: Economic Order Quantity Models, Reorder Point Models and Multi echelon Inventory Systems, Relevant deterministic and stochastic inventory models and Vendor managed inventory models.</p> <p><b>Unit IV Designing and planning transportation networks</b>            Distribution Management: Role of transportation in a supply chain -direct shipment, warehousing, cross-docking; push vs. pull systems; transportation decisions (mode selection, fleet size), market channel structure, vehicle routing problem. Facilities decisions in a supply chain. Mathematical foundations of distribution management, Supply chain facility layout and capacity planning</p> <p><b>Unit V Revenue Management</b>            Role of Pricing and Revenue Management in a Supply Chain; Pricing and Revenue Management for Multiple Customer Segments; Pricing and Revenue Management for Perishable Assets; Pricing and Revenue Management for Seasonal Demand; Pricing and Revenue Management for Bulk and Spot Contracts. Role of IT in Pricing and Revenue Management</p>			
<b>COURSE OBJECTIVES</b>			
To create an understanding on designing and managing supply chain networks			
<b>COURSE OUTCOMES (CO)</b>		<b>Aligned Programme Outcomes (PO)</b>	
1. Understand supply chain concepts at macro and micro levels		1	
2. Implement the concepts to solve problems and derive insights		1, 3, 4	
3. Identify real life supply chain problems and address them		2, 3, 7	

**COURSE TEACHING AND LEARNING ACTIVITIES**

Sl. No.	Week	Topic	Mode of Delivery
1.	<b>3<sup>rd</sup> week of July 2022</b> Class – 1 <sup>st</sup> week (2 Contact Hours)	<ul style="list-style-type: none"> <li>- Introduction to course and course structure</li> <li>- Giving access to NITT-Moodle</li> <li>- Fundamental concepts to supply chain</li> <li>- <i>Supply chain networks</i></li> <li>- <i>Supply chain planning &amp; Decision Phases</i></li> <li>- Interactive Q&amp;A (*Assessment-4 begins)</li> </ul>	Lecture – Recorded Video Lecture – Power Point Presentation (Blended Class)
2.	Class- 2 <sup>nd</sup> week (3 Contact Hours)	<ul style="list-style-type: none"> <li>- <i>Supply Chain Flows</i></li> <li>- Supply Chain Views (Cycle and Pull-Push)</li> <li>- <i>Strategies and Strategic Fit</i></li> <li>- <i>Impellers and Drivers</i></li> <li>- Achieving Strategic Fit</li> </ul>	Lecture – Recorded Video Lecture – Power Point Presentation (Blended Class)
3.	Class- 3 <sup>rd</sup> week (3 Contact Hours)	<ul style="list-style-type: none"> <li>- Demand Forecasting</li> <li>- Aggregate Planning</li> <li>- Predictable Variability</li> </ul>	Lecture – Power Point Presentation (Blended Class)
4.	Class- 4 <sup>th</sup> week (3 Contact Hours)	<ul style="list-style-type: none"> <li>- <i>Introduction to inventory management</i></li> <li>- Cycle Inventory – EOQ Models</li> <li>- Cycle Inventory – Aggregation</li> <li>- Cycle Inventory – Quantity Discounts</li> </ul>	Lecture – Recorded Video Lecture – Power Point Presentation (Blended Class) Problem Solving
5.	Class- 5 <sup>th</sup> week (3 Contact Hours)	<ul style="list-style-type: none"> <li>- Cycle Inventory – Quantity Discounts (Continued)</li> <li>- Cycle Inventory – Trade Promotions</li> <li>- Safety Inventory – Determination (ROP)</li> <li>- Product Availability (Introduction)</li> </ul>	Lecture – Power Point Presentation Problem Solving
6.	Class- 6 <sup>th</sup> week (3 Contact Hours)	<ul style="list-style-type: none"> <li>- Review Policies</li> <li>- ROP Determination</li> <li>- Product Availability – Determination</li> </ul>	Lecture – Power Point Presentation Problem Solving
7.	7 <sup>th</sup> week (3 Contact Hours)	<ul style="list-style-type: none"> <li>- Double Marginalization (Buy-Back and Revenue Sharing Contracts)</li> <li>- Sourcing Decisions</li> </ul>	Lecture – power point presentation
8.	Class- 8 <sup>th</sup> week (3 Contact Hours)	<ul style="list-style-type: none"> <li>- <i>Modes and Design Options in SCM Transportation</i></li> <li>- Determining choice of transportation</li> </ul>	Lecture - Power Point Presentation
9.	Class – 9 <sup>th</sup> week (3 Contact Hours)	<ul style="list-style-type: none"> <li>- Determining network design</li> <li>- <i>Pricing and Revenue Management Introduction</i></li> <li>- Pricing and Revenue Management for Perishable Assets</li> <li>- Pricing and Revenue Management for Seasonal demand</li> </ul>	Lecture – Recorded Video Lecture – Power Point Presentation (Blended Class)
10.	Class - 10 <sup>th</sup> week (3 Contact Hours)	<ul style="list-style-type: none"> <li>- Assignment-3 format disclosure</li> <li>- Pricing and Revenue Management for sports contracts</li> <li>- Role of IT in Revenue Management</li> </ul>	Assignment– 1 Report Submission Lecture - Power Point Presentation
11.	Class – 11 <sup>th</sup> (3 Contact Hours)	<ul style="list-style-type: none"> <li>- Case Study – Introduction</li> <li>- Case Study Theoretical Formulation (Coding Discussion)</li> </ul>	Lecture-Discussion and Brainstorming
12.	Class- 12 <sup>th</sup> week (3 Contact Hours)	<ul style="list-style-type: none"> <li>- Case Study solution discussion</li> <li>- Conducting Assignment-3</li> <li>- Assessment-4 ends</li> </ul>	Case Solution Discussion Assignment-2 Conduct Close evaluation of the

“Interactive Q&A”  
component

13. 3<sup>rd</sup> week of October 2023 Trimester Exam Begins (Assessment -5)

**COURSE ASSESSMENT METHODS**

Sl. No.	Mode of Assessment	Week / Date	Remarks	% Weightage
1.	Assignment-1 (Individual)	3 <sup>rd</sup> and 5 <sup>th</sup> Weeks	Individual assignment based on concepts covered in class	12%
2.	Assignment-2 (Individual)	7 <sup>th</sup> and 8 <sup>th</sup> Weeks	Individual assignment based on concepts covered in class	11%
3.	Assignment-3 (Team)	12 <sup>th</sup> week	Team classroom presentation	12%
4.	Interactive Q&A	1 <sup>st</sup> to 12 <sup>th</sup> week (continuous evaluation during all sessions)	Classroom interaction	15%
5.	Final Exam	October-2023	End Trimester (180 minutes)	50%

**Note:**

1. Attending all the assessments (Assessment 1 to 4) is MANDATORY for every student.
2. Every student is expected to score minimum 30% (i.e., 15 marks) in the Final Exam to pass the course. Otherwise, the student would be declared fail and 'F' grade will be awarded.

**COURSE EXIT SURVEY**

- Feedback is collected before the final examination through MIS or NITT-Moodle which is accessible to all students
- Students, either directly or through their Class Representatives, may give their feedback at any time to the course faculty which will be duly addressed
- The students may also give their feedback during Class Committee Meeting.

**ATTENDANCE:**

- Minimum 75% is mandatory to write the trimester examination. Students having attendance 65% to 74% are eligible for the end trimester exam only after attending the extra classes and submitting assignments. Students have to redo the course, if they have less than 65% of attendance.
- Medical Certificate / On Duty Certificate should be submitted immediately after rejoining.
- Attendance will be taken in the first 5 minutes of the class during live lectures.

**COMPENSATION ASSESSMENT:**

- Only one compensation assessment will be given for Assessments for the students those who are absent for any genuine reason for classroom assessment.
- The prior permission and required documents must be submitted for absence.

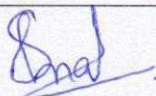
**ACADEMIC HONESTY & PLAGIARISM:**

- Avoid usage of electronic devices at classes, test and exam.
- The students (and teams) are expected to come out with their original solution for the problems given in the assignment. If found to copy from internet/other students (or teams), marks will be reduced without intimation.
- Need to maintain honesty & discipline in class room and exam hall.

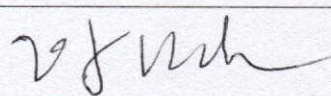
**ADDITIONAL INFORMATION**

- The students can get their doubts clarified at any time with their faculty member with prior appointment.
- If arranged, guest lecture date will be intimated based on expert availability
- Submission of all assignments should be on the date informed. No late submission allowed.

**FOR APPROVAL**



Dr. Malolan Sundararaman  
Course Faculty



Dr. V. J. Sivakumar  
Chairman (Class Committee)



Dr. G. Muruganatham  
HoD

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