



Kot Bhalwal, Jammu



Model Institute of Engineering
& Technology (Autonomous)
Lesson Plan

Department of B.Com.

Details of Lesson Plan

S. No.	Particulars	Details
1.	Course Name	Logistics & Supply Chain Management
2.	Course Code	BCMMI 605A
3.	Academic Year	2024-25
4.	Semester	6 TH
5.	Number of Lesson plans	40
6.	Faculty Assigned	Dr. Vibhu Johar

Vibhu Johar

Faculty Signature



Dr. Arun K. Gupta Teaching-Learning Centre

Version 1.1



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Kot Bhalwal, Jammu



Course Title: Logistics and Supply Chain Management

Course Code: (BCMMI-605(A))

Mode of Delivery: Interactive Lectures, Case Studies, Discussions, Videos, and Assessments

Why This Subject? In today's interconnected world, understanding logistics and supply chain management is crucial for businesses to thrive. This course equips students with the knowledge and skills to optimize the flow of goods, services, and information, leading to improved efficiency, customer satisfaction, and competitive advantage. It emphasizes strategic decision-making, problem-solving, and the integration of various functions within a supply chain.

Course Objectives (COs):

- **CO1:** Explain the components, functions, and strategic planning process of logistics management.
- **CO2:** Describe the structure and drivers of supply chain management and its role in customer service.
- **CO3:** Analyze factors affecting decision-making in supply chains, opportunities, and constraints.
- **CO4:** Apply demand planning, forecasting, and inventory management in supply chain planning.
- **CO5:** Evaluate practices like JIT, Kanban, and e-commerce in supply chain management.

Unit-Wise Breakdown & Lesson Plan:

Unit I: Overview of Logistics (10 Hrs)

- **Topics Covered:** Introduction, Nature, Evolution of Logistics, Growing Importance of Logistics, Components of Logistics Management, Functions of Logistics, Strategic logistics planning process, Integrated logistics system.
- **Learning Outcomes:** Understand the evolution and importance of logistics, identify key components and functions, and comprehend the strategic planning process.
- **Open-ended Questions:** How has logistics evolved over time? What are the key challenges in managing global logistics?
- **Suggested Video:** <https://www.youtube.com/watch?v=eUsUzLOvrvo>
- **Assessment:** Short quiz on logistics fundamentals, Case study analysis of a logistics challenge.



Unit II: Supply Chain Management (10 Hrs)

- **Topics Covered:** Introduction to SCM, Evolution of SCM, Customer service, Supply chain effectiveness, Supply chain structure, Supply chain drivers, Role and Relevance, Framework of supply chain solutions.
- **Learning Outcomes:** Define SCM, understand its evolution, and analyze the impact of customer service and supply chain drivers.
- **Open-ended Questions:** How does SCM contribute to competitive advantage? What are the different types of supply chain structures?
- **Suggested Video:** <https://www.youtube.com/watch?v=P-Q-pzSCfkQ>
- **Assessment:** Group discussion on supply chain best practices, Case study analysis of a supply chain disruption.

Unit III: Decision Environment (10 Hrs)

- **Topics Covered:** Factors in Decision Making, Resource Driven Decision environment; Opportunities and constraints, Support systems for mapping decision environment, strategic decisions in the supply chain.
- **Learning Outcomes:** Analyze the factors influencing supply chain decisions, understand the impact of resources and constraints, and learn about decision support systems.
- **Open-ended Questions:** How do risk and uncertainty affect supply chain decisions? What are some examples of decision support systems used in SCM?
- **Suggested Video:** <https://www.facebook.com/edX/videos/supply-chain-management-a-decision-making-framework/1148724915258869/>
- **Assessment:** Problem-solving exercises on supply chain decision-making, Case study analysis of a strategic supply chain decision.

Unit IV: Supply Chain Tactical Planning (08 Hrs)

- **Topics Covered:** Supply chain planning, Demand planning and forecasting, Sales and operations planning, Scope of planning initiatives, Role of Inventory management in SCM: Classification of inventory, warehousing and distribution centers, Transportation, Packaging, Order processing.
- **Learning Outcomes:** Understand the tactical planning process in SCM, learn about demand planning, forecasting, and S&OP, and analyze the role of inventory management, warehousing, transportation, and order processing.
- **Open-ended Questions:** What are the different forecasting techniques? How can companies optimize their inventory levels?
- **Suggested Video:** <https://www.youtube.com/watch?v=hUO226a7sI4>



- **Assessment:** Case study on demand planning and forecasting, Simulation exercise on inventory management.

Unit V: Key Operational Aspects and Technology in SCM (10 Hrs)

- **Topics Covered:** Operational practices in the Supply chain, Just in time, Kanban, Vendor managed Inventory, Quality, Green SCM, Ethical SCM, Supply chain security management, Role of the supply chain in E-business models, E-commerce and SCM.
- **Learning Outcomes:** Evaluate key operational practices like JIT, Kanban, and VMI, understand the importance of quality, green and ethical SCM, and analyze the impact of e-commerce on supply chains.
- **Open-ended Questions:** How can technology be used to improve supply chain visibility? What are the challenges in implementing green SCM practices?
- **Suggested Video:** <https://www.youtube.com/watch?v=KgCcNMToRv8>
- **Assessment:** Research paper on a contemporary issue in SCM, Group presentation on the role of technology in SCM.

Assessment and Evaluation:

- **Internal (40 Marks):** Sessional I (10 Marks), Sessional II (10 Marks), Assignment (10 Marks), Attendance (10 Marks)
- **External (60 Marks):** End Term Examination



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Lesson Plan No. 1.1	Course Name: Logistics & Supply Chain Management Topic Introduction to Logistics, Concept of Logistics	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: a. Understand the meaning of logistics and its scope in supply chain management. b. Recognize the various activities and processes involved in logistics operations. c. Understand the significance of logistics in facilitating the efficient flow of goods, information, and resources across the supply chain.
Teaching Aids (if any)	a. ICT tools
Teaching Development	<p>1. Introduction (5 minutes)</p> <ul style="list-style-type: none">- Ask students if they have any prior knowledge or experience with logistics, and briefly discuss their responses.- Explain that logistics plays a crucial role in the success of businesses across various industries.- Provide an overview of what will be covered during the lesson. <p>2. Development (30 minutes)</p> <ul style="list-style-type: none">a) Define logistics as the process of planning, implementing, and controlling the efficient flow and storage of goods, services, and related information from point of origin to point of consumption.b) Break down the key components of logistics, such as:<ul style="list-style-type: none">- Supply Chain Management- Transportation- Inventory Management- Warehousing- Information Flowc) Use examples to illustrate each component and its importance in logistics operations. <p>3. Exercise (5 minutes) – To discuss in groups the steps of supply chain in sugar Industry</p>



Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Homework: Assign students to research a specific aspect of logistics (e.g., transportation modes, inventory management techniques) and present their findings in the next class.3. Suggested Reading:<ul style="list-style-type: none">- https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf-Supply chain management process, system. N. Chandrasekaran Oxford University Press 3rd(2023)-Textbook of Logistics and Supply Chain Management DK Agrawal <p>Spend 5 minutes to wrap up and consolidate the learning</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <ul style="list-style-type: none">- What is the difference between supply chain and logistics- List the steps of supply chain- Give example of supply chain in day to day life <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



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Lesson Plan No. 1.2	Course Name: Logistics & Supply Chain Management Topic Evolution of the Logistics	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: a. Get a deep understanding of the historical context of logistics. b. Identify and analyze key milestones and innovations in the evolution of logistics.
Teaching Aids (if any)	a. ICT tools
Teaching Development	<ol style="list-style-type: none">Introduction (5 minutes) Ask Questions<ul style="list-style-type: none">- What is the difference between supply chain and logistics- List the steps of supply chain- Give example of supply chain in day to day lifeDevelopment (30 minutes) a) Historical Background<ul style="list-style-type: none">- Discuss the origins of logistics.- Explore logistics in ancient civilizations (e.g., Mesopotamia, Egypt, Rome).b) Industrial Revolution and Early Developments<ul style="list-style-type: none">- Discuss the impact of the Industrial Revolution on logistics.- Discuss key figures and innovations that contributed to logistics during this period.c) Post-Industrial Revolution to Modern Logistics<ul style="list-style-type: none">- Explore the evolution of logistics in the 20th century.- Highlight the role of technology in revolutionizing logistics, including the advent of containerization, barcode scanning, and computerized inventory management systems.Touch upon contemporary trends such as e-commerce logistics and sustainable supply chain initiatives. <p>Exercise (5 minutes) –</p> <p>Let's imagine you're a product – maybe a cool new pair of sneakers! In the old days, a shoemaker in your town would make you from start to finish. But now, things are different. The cotton for your laces might come from a farm in one country, the rubber for your soles from another, and the shoes themselves might be put together in a factory far away. Then, they're shipped on a big boat, maybe flown on a plane, and finally trucked to a store near you. That whole journey, from raw materials to you, is the supply chain! Think about all the people involved – farmers, factory workers, truck drivers, store clerks – everyone plays a part in getting those sneakers to your feet. Can you draw a picture or write a short story about your sneakers' journey through the supply chain?</p>



Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Homework: Assign students to research a specific aspect of logistics (e.g., transportation modes, inventory management techniques) and present their findings in the next class.3. Suggested Reading:<ul style="list-style-type: none">- https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf-Supply chain management process, system. N. Chandrasekaran Oxford University Press 3rd(2023)-Textbook of Logistics and Supply Chain Management DK Agrawal <p>Spend 5 minutes to wrap up and consolidate the learning</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <ul style="list-style-type: none">- List the time line in evolution of logistics and supply chain- What is the future of supply chain <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



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Lesson Plan No. 1.3	Course Name: Logistics & Supply Chain Management Topic Components & Functions of Logistics, Factors Affecting Logistics	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: a. Get a deep understanding of Components & Functions of Logistics b. Demonstrate the ability to apply logistics principles and techniques to analyze and solve logistical challenges in various industries and contexts.
Teaching Aids (if any)	a. ICT tools b. Video
Teaching Development	<p>1. Introduction (5 minutes) Ask Questions? -What are the functions of supply chain -What is physical distribution system</p> <p>Highlight the importance of understanding the components, functions, and factors affecting logistics in various industries.</p> <p>2. Development (30 minutes)</p> <p>a) Define and explain the key components of logistics:</p> <ul style="list-style-type: none">- Procurement: Acquiring goods or services needed for the production process.- Transportation: Moving goods from one location to another.- Warehousing: Storage and management of goods.- Inventory Management: Controlling the flow of goods in and out of inventory.- Information Systems: Managing data related to logistics activities. <p>b) Discuss the functions of each component.</p> <p>c) Identify and discuss the key factors that influence logistics operations:</p> <ul style="list-style-type: none">- Economic Factors: Market demand, inflation, currency fluctuations, etc.- Technological Factors: Advances in transportation, warehousing automation, etc.- Regulatory Factors: Government regulations, trade policies, customs procedures, etc.- Environmental Factors: Sustainability initiatives, carbon emissions regulations, etc.- Social Factors: Consumer preferences, labor availability, cultural considerations, etc. <p>d) Explain how these factors impact various aspects of logistics, such as cost, efficiency, and sustainability.</p>



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Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Homework: Assign students to research a specific aspect of logistics (e.g., transportation modes, inventory management techniques) and present their findings in the next class.3. Suggested Reading:<ul style="list-style-type: none">- https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf- Supply chain management process, system. N. Chandrasekaran Oxford University Press 3rd(2023)- Textbook of Logistics and Supply Chain Management by DK Agrawal <p>Spend 5 minutes to wrap up and consolidate the learning</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <ul style="list-style-type: none">- What is the difference between supply chain and logistics- List the steps of supply chain- Give example of supply chain in day to day life <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



Lesson Plan No. 1.4	Course Name: Logistics & Supply Chain Management Topic Integrated Logistics Systems	Course No.: BCMMI 605A
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Objectives	At end of the lesson the student shall be able to: <ul style="list-style-type: none"> - Understand the concept of integration in logistics and its importance in improving supply chain efficiency, reducing costs, and enhancing customer satisfaction. - Analyze the benefits of implementing integrated logistics systems, including improved coordination, reduced lead times, lower inventory holding costs, and increased customer responsiveness.
Teaching Aids (if any)	a. ICT tools
Teaching Development	<p>1. Introduction (5 minutes) Ask Questions</p> <ul style="list-style-type: none"> - Define integrated logistics systems - What are the goals of supply chain and logistics - What are the benefits - What do you mean by Integrated logistics system <p>2. Development (30 minutes)</p> <p>a) Discuss the components of integrated logistics systems:</p> <ul style="list-style-type: none"> - Supply Chain Management: Coordination of activities involved in sourcing, procurement, production, and distribution to meet customer demand. - Transportation Management: Efficient planning, execution, and optimization of transportation activities. - Inventory Management: Control and optimization of inventory levels to minimize costs while meeting customer demand. - Warehousing and Distribution: Management of storage facilities and distribution networks to ensure timely delivery. - Information Systems: Utilization of technology and data analytics to facilitate decision-making and improve visibility across the supply chain. <p>b) Explain how these components work together seamlessly to create an integrated logistics system that maximizes efficiency and responsiveness.</p> <p>c) Discuss the advantages of implementing integrated logistics systems:</p> <p>3. Exercise (5 minutes) : In group of four tell students to list the advantages of integrated logistics system</p>



Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Homework: Assign students to research a specific aspect of logistics and present their findings in the next class.3. Suggested Reading:<ul style="list-style-type: none">- https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf-Supply chain management process, system. N. Chandrasekaran Oxford University Press 3rd(2023)-Textbook of Logistics and Supply Chain Management DK Agrawal <p>Spend 5 minutes to wrap up and consolidate the learning .</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss</p> <ul style="list-style-type: none">-What are the goals of SCM-Define Integrated logistics <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



Lesson Plan No. 1.5	Course Name: Logistics & Supply Chain Management Topic Logistical Competitive Advantage	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: a. Understand the concept of logistical competitive advantage, including its definition, components, and significance in the context of logistics. b. Evaluate different strategies and approaches for gaining logistical competitive advantage.
Teaching Aids (if any)	ICT tools
Teaching Development	<p>1. Introduction (5 minutes) Ask Questions -Define logistical competitive advantage . -What is logistics effectiveness - Emphasize the critical role of logistics in gaining a competitive edge in the marketplace.</p> <p>2. Development (30 minutes) - Discuss the concept of competitive advantage and its significance in business strategy. - Explain how logistics plays a crucial role in creating and sustaining competitive advantage. - Explore various strategies companies can use to gain logistical competitive advantage: - Discuss how each strategy contributes to improving logistics performance and gaining a competitive edge in the marketplace. -</p> <p>3. Exercise (5 minutes) In groups of 5 tell students to find out steps involved in ILS of some famous companies</p>
Closure	<ol style="list-style-type: none">Summarize the Lesson Learning Outcomes and get affirmation from students on these.Homework: Assign students to research a specific aspect of logistics (e.g., transportation modes, inventory management techniques) and present their findings in the next class.



	<p>3. Suggested Reading:</p> <ul style="list-style-type: none">- https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf- Supply chain management process, system. N. Chandrasekaran Oxford University Press 3rd(2023)- Textbook of Logistics and Supply Chain Management DK Agrawal <p>Spend 5 minutes to wrap up and consolidate the learning</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <ul style="list-style-type: none">- What is ILs- What are the benefits of ILS list 5 <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



Lesson Plan No. 1.6	Course Name: Logistics & Supply Chain Management Topic Operational objectives of logistics, Growing Importance of logistics management	Course No.: BCMMI 605A
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Objectives	<p>At end of the lesson the student shall be able to:</p> <ul style="list-style-type: none"> -Comprehend the meaning and significance of each "R" in logistics and its role in ensuring effective and efficient supply chain management. -Analyze the interdependencies among the 7Rs and understand how decisions made regarding one "R" can impact others. For example, ensuring the right quantity may affect transportation costs and delivery times.
Teaching Aids (if any)	ICT Tools
Teaching Development	<p>1. Introduction (5 minutes) Ask questions</p> <ul style="list-style-type: none"> -What is the objective of supply chain -What are the various components of Logistics -Highlight the crucial role of logistics management in modern business operations and its impact on overall organizational success. <p>2. Development (30 minutes)</p> <p>a) Discuss the primary operational objectives of logistics:</p> <ul style="list-style-type: none"> - Cost Efficiency: Minimizing transportation, inventory, warehousing, and other logisticsrelated costs while maintaining service levels. - Inventory Management: Optimizing inventory levels to balance supply and demand, reduce carrying costs, and minimize stockouts. - Transportation Management: Efficiently planning, executing, and optimizing transportation activities to minimize costs and transit times. - Information Management: Utilizing technology and data analytics to enhance visibility, coordination, and decision-making across the supply chain. <p>b) Explore the factors contributing to the growing importance of logistics management.</p> <p>c) Discuss how these trends and challenges highlight the critical role of logistics management in achieving competitive advantage, cost savings, and customer satisfaction.</p> <p>3 Exercise: One Minute paper pen on challenges in supply chain</p>



Closure	<ol style="list-style-type: none">4. Summarize the Lesson Learning Outcomes and get affirmation from students on these.5. Homework: Assign students to research a specific aspect of logistics (e.g., transportation modes, inventory management techniques) and present their findings in the next class.6. Suggested Reading:<ul style="list-style-type: none">- https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf-Supply chain management process, system. N. Chandrasekaran Oxford University Press 3rd(2023)-Textbook of Logistics and Supply Chain ManagementDK Agrawal <p>Spend 5 minutes to wrap up and consolidate the learning</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <ul style="list-style-type: none">-List the objectives of supply chain- List the importance of supply chain <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



Lesson Plan No. 1.7	Course Name: Logistics & Supply Chain Management Topic: Strategic logistics planning	Course No.: BCMMI 605A
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Objectives	At the end of the lesson, the student shall be able to: a. Articulate the concept of strategic logistics planning. b. Illustrate the importance and benefits of a well-defined logistics strategy. c. Describe the key steps involved in the strategic logistics planning process.
Teaching Aids (if any)	ICT tools
	<ol style="list-style-type: none"> 1. Introduction (5 minutes): Ask questions: <ul style="list-style-type: none"> - What comes to mind when you hear "logistics"? - Why is planning important in logistics? - Have you heard of companies that are known for their excellent logistics? What makes them stand out? - Briefly introduce the concept of strategic planning in general, and then narrow it down to logistics. 2. Development (30 minutes): <ul style="list-style-type: none"> • Defining Strategic Logistics Planning: Explain the meaning of strategic logistics planning – a process of deciding the long-term objectives and strategies for managing the flow of goods, services, and information throughout the supply chain. • Importance and Benefits: Discuss the benefits of having a strategic logistics plan, such as: <ul style="list-style-type: none"> - Cost reduction - Improved customer service - Increased efficiency - Competitive advantage - Better inventory management - Defining the Business Objectives: Start with the overall business goals. How can logistics support these goals? - Analyzing the Current Logistics System: Evaluate the existing logistics network, infrastructure, technology, and processes. Identify strengths and weaknesses. SWOT analysis can be useful here. - Forecasting Future Demand: Project future demand for products/services to determine logistics requirements. 3. Exercise Summarizing in group discussion the lecture taught



Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students.2. Homework:<ul style="list-style-type: none">○ Students can research different logistics strategies used by various companies.○ They can also be asked to think about a product they use regularly and analyze the logistics involved in getting it to the consumer.3. Spend 5 minutes to wrap up and consolidate the learnings. Suggested Readings:<ul style="list-style-type: none">• <i>Supply Chain Management: Strategy, Planning, and Operation</i> by Sunil Chopra and Peter Meindl• <i>Logistics Management</i> by Donald J. Bowersox, David J. Closs, and M. Bixby Cooper
Evaluation	<p>Reflective Questions (What, Why, Who?):</p> <ul style="list-style-type: none">• What are the key elements of a strategic logistics plan?• Why is it important to align logistics strategy with overall business objectives?• Who are the key stakeholders involved in the strategic logistics planning process? <p>Spend 5 minutes to evaluate student assimilation of the lesson contents through discussion and Q&A</p>



Lesson Plan No. 1.8	Course Name: Logistics & Supply Chain Management Topic: Factors influencing Strategic logistics planning	Course No.: BCMMI 605A
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Objectives	At the end of the lesson, the student shall be able to: a. Articulate the concept of strategic logistics planning. b. Illustrate the importance and benefits of a well-defined logistics strategy. c. Describe the key steps involved in the strategic logistics planning process.
Teaching Aids (if any)	ICT tools
Teaching Development	2. Introduction (5 minutes): Ask questions: - What comes to mind when you hear "logistics"? - Why is planning important in logistics? Briefly introduce the concept of strategic planning in general, and then narrow it down to logistics. 4. Development (30 minutes): Factors Influencing Logistics Strategy: Briefly discuss internal and external factors that can impact logistics planning, such as: - Customer expectations - Competition - Technology - Regulations - Economic conditions 3. Exercise (5 minutes): Scenario-Based Discussion: Present a short scenario of a company facing a logistics challenge (e.g., expanding into a new market, dealing with supply chain disruptions). Ask students to brainstorm potential strategic logistics solutions.
Closure	4. Summarize the Lesson Learning Outcomes and get affirmation from students. 5. Homework: ○ Students can research different logistics strategies used by various companies. ○ They can also be asked to think about a product they use regularly and analyze the logistics involved in getting it to the consumer. 6. Spend 5 minutes to wrap up and consolidate the learnings. Suggested Readings: • <i>Supply Chain Management: Strategy, Planning, and Operation</i> by Sunil Chopra and Peter Meindl



	<ul style="list-style-type: none">• <i>Logistics Management</i> by Donald J. Bowersox, David J. Closs, and M. Bixby Cooper
Evaluation	<p>Reflective Questions (What, Why, Who?):</p> <ul style="list-style-type: none">- What are the key elements of a strategic logistics plan?- Why is it important to align logistics strategy with overall business objectives?- Who are the key stakeholders involved in the strategic logistics planning process? <p>Spend 5 minutes to evaluate student assimilation of the lesson contents through discussion and Q&A</p>



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Lesson Plan No. 2.1	Course Name: Logistics & Supply Chain Management Topic Nature, concepts of Supply Chain Management	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: a. Grasp the fundamental concepts and principles of supply chain management, including its definition, scope, and objectives. b. Identify and explain the key components of a supply chain, including suppliers, manufacturers, distributors, retailers, and customers.
Teaching Aids (if any)	a. ICT tools
Teaching Development	<ol style="list-style-type: none">1. Introduction (5 minutes) - Define supply chain management as the strategic coordination and integration of all activities involved in the sourcing, procurement, production, logistics, and distribution of goods and services to meet customer demand efficiently and effectively. - Explain that the lesson will delve into the nature, key concepts, and principles of supply chain management.2. Development (30 minutes) <ol style="list-style-type: none">a) Understanding the Nature of Supply Chain Management - Discuss the key characteristics of supply chain management.b) Key Concepts of Supply Chain Management - Introduce the fundamental concepts and principles of supply chain management: - Provide real-world examples or case studies illustrating how companies apply these concepts to optimize their supply chain operations and enhance overall performance.3. Exercise (5 minutes) – To discuss the case study of sugar cane SCM and discuss among students



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Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Suggested Reading: https://www.investopedia.com/terms/s/scm.asp#:~:text=Supply%20chain%20management%20(SCM)%20is,them%20to%20the%20ultimate%20customer. <p>Spend 5 minutes to wrap up and consolidate the learnings.</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <ul style="list-style-type: none">- What is the scope of SCM- What is effectiveness of SCM <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



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Lesson Plan No. 2.2	Course Name: Logistics & Supply Chain Management Topic Functions & Contribution Of Supply Chain Management	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: a. Recognize and describe the primary functions of SCM, including procurement, production planning, inventory management, logistics, and distribution. b. Evaluate how effective SCM practices contribute to enhanced business performance, including cost reduction, improved customer satisfaction, increased agility, and competitive advantage.
Teaching Aids (if any)	a. Power Point Presentation
Teaching Development	1.Introduction (5 minutes) - Define supply chain management as the coordination and integration of key business processes across the supply chain, from raw material acquisition to the delivery of finished products to customers. - Emphasize the importance of SCM in optimizing operations, reducing costs, and enhancing customer satisfaction. - Explain that the lesson will focus on exploring the functions and contributions of supply chain management in more detail. 2.Development (30 minutes) <ul style="list-style-type: none">▪ Planning▪ Sourcing▪ Production▪ Warehousing▪ Transportation▪ Delivery▪ Returns 3. Exercise: One Minute paper pen on functions of supply chain
Closure	 1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Homework: Assign students to research a specific aspect of logistics functions and present their findings in the next class. 3. Suggested Reading: - https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf - Supply chain management process, system. N. Chandrasekaran Oxford



	<p>University Press 3rd(2023) -Textbook of Logistics and Supply Chain Management DK Agrawal</p> <p>Spend 5 minutes to wrap up and consolidate the learning</p>
Evaluation	<p>Reflective Questions (What, why, Who?). -Define the supply chain -List 5 functions of supply chain Allow students to answer and discuss.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



Lesson Plan No. 2.3	Course Name: Logistics & Supply Chain Management Topic Framework of Supply Chain Solutions	Course No: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: a. Identify and explain the key components of the supply chain solutions framework, including government regulations and compliance, third-party logistics services, industry collaboration, and vendor management. b. Gain an understanding of the importance of government regulations and compliance in supply chain management and recognize the impact of regulatory changes on supply chain operations.
Teaching Aids (if any)	a. Power Point Presentation b. White Board
Teaching Development	1. Introduction (5 minutes) - Define supply chain solutions as the strategic approaches, methodologies, and technologies used to optimize and streamline supply chain processes to achieve business objectives. - Explain that the lesson will focus on exploring the framework of supply chain solutions, including key methodologies and technologies. 2. Development (30 minutes) a) Discuss the key components of the framework for supply chain solutions: - Government Regulations and Compliance - Third-Party Logistics (3PL) Providers - Vendor Management - Industry Collaboration and Networks b) Explain how each component contributes to the overall effectiveness of supply chain solutions and supports the achievement of business objectives. c) Provide examples illustrating how companies apply these methodologies to enhance supply chain performance and achieve business objectives. Exercise (5 minutes) – Summarising



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Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Suggested Reading: https://scmedu.org/supply-chain-management-frameworks/ <p>Spend 5 minutes to wrap up and consolidate the learnings.</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss. Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



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Lesson Plan No. 2.4	Course Name: Logistics & Supply Chain Management Topic Michael E. Porter's Value Chain Model, Value chain of SCM	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: a. Identify and explain the key components of the supply chain solutions framework, including government regulations and compliance, third-party logistics services, industry collaboration, and vendor management. b. Gain an understanding of the importance of government regulations and compliance in supply chain management and recognize the impact of regulatory changes on supply chain operations.
Teaching Aids (if any)	a. Power Point Presentation b. White Board
Teaching Development	<p>1. Introduction (5 minutes)</p> <ul style="list-style-type: none">- Briefly explain Michael Porter's concept of the value chain as a framework for analyzing the activities within an organization that adds value to its products or services.- Explain that the lesson will explore Michael Porter's Value Chain Model and its application in analyzing the value chain of supply chain management. <p>2. Development (30 minutes)</p> <ul style="list-style-type: none">a) Discuss the primary components of the value chain model:<ul style="list-style-type: none">- Primary Activities- Support Activitiesb) Explain how each activity contributes to creating value for the customer and achieving competitive advantage.c) Explain how value chain analysis in SCM helps organizations identify areas for improvement, optimize processes, and enhance overall supply chain performance.d) Discuss how each component of the value chain applies to SCM. <p>3. Exercise (5 minutes) :</p> <p>In group of two find the value chain components of Flipkart, TATA or any other company</p>



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Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading: https://www.investopedia.com/terms/v/valuechain.asp 5 minutes to wrap up and consolidate the learnings.
Evaluation	Reflective Questions (What, why, Who?). Allow students to answer and discuss. Spend 5 minutes to evaluate student assimilation of the lesson contents



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Lesson Plan No. 2.5	Course Name: Logistics & Supply Chain Management Topic Outsourcing; Third-party logistics(3PL)	Course No.: BCMMI 605A
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Objectives	<p>At the end of the lesson the student shall be able to:</p> <ul style="list-style-type: none"> -Grasp the concept of third-party logistics, including the roles and responsibilities of 3PL providers in supply chain management. This includes services such as transportation, warehousing, distribution, and inventory management.
Teaching Aids (if any)	a. ICT tools
Teaching Development	<p>1.Introduction (5 minutes)</p> <ul style="list-style-type: none"> - Define outsourcing as the practice of contracting out business functions or processes to external service providers. - Define third-party logistics (3PL) as the outsourcing of logistics and supply chain management functions to specialized third-party providers. - Highlight the significance of outsourcing and 3PL in modern business operations, enabling companies to focus on their core competencies while leveraging external expertise and resources. - Share a relevant example or anecdote to illustrate the importance of outsourcing and 3PL in improving efficiency and reducing costs, such as a company partnering with a 3PL provider to streamline its distribution network. - Explain that the lesson will explore the concepts, benefits, challenges, and best practices associated with outsourcing and 3PL. <p>2.Development (30 minutes)</p> <p>a) Understanding Outsourcing:</p> <ul style="list-style-type: none"> - Discuss the concept of outsourcing and its various forms, including business process outsourcing (BPO) and knowledge process outsourcing (KPO). - Explain the reasons why companies choose to outsource, such as cost savings, access to specialized expertise, scalability, and flexibility. - Discuss the types of functions commonly outsourced, including IT services, customer support, manufacturing, and logistics. <p>b) Introduction to Third-Party Logistics (3PL):</p> <ul style="list-style-type: none"> -Define third-party logistics (3PL) and explain its role in supply chain management.



	<ul style="list-style-type: none">-Discuss the services offered by 3PL providers, including transportation, warehousing, distribution, inventory management, freight forwarding, and customs brokerage.- Explain the benefits of partnering with 3PL providers, such as cost savings, access to specialized expertise and technology, improved service levels, and scalability.- Provide examples of well-known 3PL providers and the range of services they offer to their clients. <p>3.Exercise (5 minutes) – Summarising in groups of 2</p>
Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Homework: Assign students to research a specific aspect of logistics (e.g., transportation modes, inventory management techniques) and present their findings in the next class.3. Suggested Reading:<ul style="list-style-type: none">- https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf-Supply chain management process, system. N. Chandrasekaran Oxford University Press 3rd(2023)-Textbook of Logistics and Supply Chain Management DK Agrawal <p>Spend 5 minutes to wrap up and consolidate the learning</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



Lesson Plan No. 2.6	Course Name: Logistics & Supply Chain Management Topic Fourth Party Logistics, Stages of Fourth-party logistics (4PL), Advantages & Disadvantages of 4PL	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: a) Describe 4PL characteristics, advantages, and applications in different contexts. This includes understanding the strategic role of a 4PL provider in managing and optimizing supply chains.
Teaching Aids (if any)	a. Power Point Presentation
Teaching Development	<p>1. Introduction (5 minutes) Ask Questions</p> <ul style="list-style-type: none"> - What is 4PL -What are its stages name them <p>2. Development</p> <ul style="list-style-type: none"> - Highlight the significance of 4PL in streamlining operations, enhancing visibility, and achieving supply chain efficiency. - Discuss the concept of Fourth Party Logistics (4PL) and its role in supply chain management. - Explain that a 4PL provider acts as an independent entity that integrates and manages the resources, capabilities, and technologies of multiple logistics service providers (3PLs, carriers, warehouses, etc.) to deliver comprehensive supply chain solutions. - Highlight the primary functions of a 4PL provider, including strategic planning, network design, process optimization, performance management, and technology integration. - Provide examples or case studies illustrating successful 4PL arrangements and their impact on supply chain performance. <p>b) Stages of Fourth Party Logistics (4PL):</p> <ul style="list-style-type: none"> - Discuss the stages involved in the development and implementation of Fourth Party Logistics solutions. - Explain how each stage contributes to the successful implementation and operation of Fourth Party Logistics solutions. <p>c) Discuss the advantages and Disadvantages of Fourth Party Logistics (4PL).</p> <p>3. Exercise (5 minutes) – Summarising</p>
Closure	<ol style="list-style-type: none"> 1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Homework:



	<p>Assign students to research a specific aspect of logistics (e.g., transportation modes, inventory management techniques) and present their findings in the next class.</p> <p>3. Suggested Reading:</p> <ul style="list-style-type: none">- https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf-Supply chain management process, system. N. Chandrasekaran Oxford University Press 3rd(2023)-Textbook of Logistics and Supply Chain Management DK Agrawal <p>Spend 5 minutes to wrap up and consolidate the learning</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



Lesson Plan No. 2.7	Course Name: Logistics & Supply Chain Management Topic Bullwhip effect and supply chain	Course No.: BBAMJ - 404
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Objectives	At end of the lesson the student shall be able to: Grasp the root causes of the Bullwhip Effect, including demand forecasting errors, order batching, price fluctuations, and lead time variability.
Teaching Aids (if any)	a. ICT tools
Teaching Development	<p>1.Introduction (5 minutes)</p> <ul style="list-style-type: none"> - Define the Bullwhip Effect as a phenomenon where small fluctuations in demand at the consumer level can result in amplified fluctuations in orders placed by upstream supply chain partners, leading to inefficiencies and increased costs. - Explain the significance of understanding the Bullwhip Effect in supply chain management, as it can have detrimental effects on inventory management, production planning, and overall supply chain performance. - Explain that the lesson will explore the causes, consequences, and strategies to mitigate the Bullwhip Effect in supply chains. <p>Development (30 minutes)</p> <p>a) Understanding Fourth Party Logistics:</p> <ul style="list-style-type: none"> - Discuss the concept of Fourth Party Logistics (4PL) and its role in supply chain management. - Explain that a 4PL provider acts as an independent entity that integrates and manages the resources, capabilities, and technologies of multiple logistics service providers (3PLs, carriers, warehouses, etc.) to deliver comprehensive supply chain solutions. - Highlight the primary functions of a 4PL provider, including strategic planning, network design, process optimization, performance management, and technology integration. - Provide examples or case studies illustrating successful 4PL arrangements and their impact on supply chain performance. <p>b) Stages of Fourth Party Logistics (4PL):</p> <ul style="list-style-type: none"> - Discuss the stages involved in the development and implementation of Fourth Party Logistics solutions. - Explain how each stage contributes to the successful implementation and operation of Fourth Party Logistics solutions. <p>c) Discuss the advantages and Disadvantages of Fourth Party Logistics (4PL).</p> <p>3. 3.Exercise (5 minutes) – Summarising</p>



Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Homework: Assign students to research a specific aspect of logistics (e.g., transportation modes, inventory management techniques) and present their findings in the next class.3. Suggested Reading:<ul style="list-style-type: none">- https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf-Supply chain management process, system. N. Chandrasekaran Oxford University Press 3rd(2023)-Textbook of Logistics and Supply Chain Management DK Agrawal <p>Spend 5 minutes to wrap up and consolidate the learning</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



Lesson Plan No. 2.8	Course Name: Logistics & Supply Chain Management Topic Supply chain relationships & Conflict Resolution Strategies	Course No.: BCMMI 605A
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Objectives	<p>At the end of the lesson the student shall be able to:</p> <ol style="list-style-type: none"> Grasp the interconnected nature of supply chains and recognize how the actions and decisions of one entity can impact others throughout the chain. They will understand the flow of materials, information, and finances among suppliers, manufacturers, distributors, retailers, and customers. Gain a deep understanding of the nature and dynamics of conflict, including its causes, manifestations, and consequences.
Teaching Aids (if any)	<ol style="list-style-type: none"> Power Point Presentation White Board
Teaching Development	<p>1. Introduction (5 minutes)</p> <p>Ask Questions</p> <ul style="list-style-type: none"> - Define supply chain relationships as the interactions and collaborations among supply chain partners, - Emphasize the importance of building and maintaining positive relationships within the supply chain to enhance efficiency. - Name conflict resolution strategies as methods for addressing and resolving disputes, disagreements, or conflicts that may arise between supply chain partners. - Explain that the lesson will explore the nature of supply chain relationships, common sources of conflict, and strategies for resolving conflicts within the supply chain. <p>Development (30 minutes)</p> <ol style="list-style-type: none"> Discuss the nature and characteristics of supply chain relationships. Discuss the common sources of conflict that may arise within supply chain relationships: <ul style="list-style-type: none"> - Differences in Goals and Objectives: Misalignment of priorities, incentives, or performance metrics among supply chain partners. - Communication Breakdowns: Poor communication, misunderstandings, or lack of information sharing leading to mistrust and conflict. - Power Imbalance: Power struggles or unequal bargaining power between supply chain partners, leading to disputes over terms, pricing, or decisions. - Performance Issues: Delays, quality problems, or service failures that impact the performance of the entire supply chain network. Discuss various strategies for resolving conflicts within the supply chain:



	<ul style="list-style-type: none">- Open Communication: Encouraging transparent and constructive communication among supply chain partners to address issues and find mutually beneficial solutions.- Collaboration and Compromise: Seeking win-win solutions through collaboration, negotiation, and compromise to address conflicting interests and reach agreements.- Mediation and Arbitration: Involving neutral third parties, such as mediators or arbitrators, to facilitate dialogue, resolve disputes, and maintain relationships.- Contractual Agreements: Establishing clear and enforceable contracts or service level agreements (SLAs) to define rights, responsibilities, and dispute resolution mechanisms. <p>3.Exercise (5 minutes) – One minute paper pen activity</p>
Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Suggested Reading: https://www.uagc.edu/blog/what-are-5-conflict-resolution-strategies <p>Spend 5 minutes to wrap up and consolidate the learnings.</p>
Evaluation	<p>Reflective Questions (What, why, Who?).</p> <ul style="list-style-type: none">-list the conflict resolution strategies in supply chain-Explain the <p>Allow students to answer and discuss.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



Lesson Plan No. 3.1	Course Name: Logistics & Supply Chain Management Topic Transportation: Concept & importance and Containerization	Course No.: BBAMJ – 404
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Objectives	At the end of the lesson the student shall be able to: a) Grasp the various modes of transportation such as road, rail, air, and waterways. They'll understand how these systems function individually and collectively to facilitate the movement of goods, people, and services. b) Gain a comprehensive understanding of containerization as a logistics strategy for packaging, transporting, and handling goods in standardized containers.
Teaching Aids (if any)	a. Power Point Presentation b. White Board
Teaching Development	1. Introduction (5 minutes) - Define transportation as the movement of goods, people, or information from one location to another, crucial for connecting various nodes in the supply chain. - Introduce the concept of containerization as a transportation method involving the use of standardized containers for the carriage of goods, offering efficiency, security, and scalability. - Explain that the lesson will delve into the concept, importance, and benefits of transportation, with a focus on containerization as a key innovation in logistics. 2. Development (30 minutes) a) Discuss the concept of transportation and its role in supply chain management. b) Illustrate the importance of transportation through examples of industries heavily reliant on efficient transportation systems, such as retail, manufacturing, and e-commerce. c) Discuss the impact of transportation disruptions, such as natural disasters, strikes, or infrastructure failures, on supply chain performance and business continuity. d) Define containerization as the process of packing goods into standardized containers for transportation by various modes such as ships, trains, and trucks. e) Discuss the key benefits of containerization in transportation: - Standardization: Using uniform containers enables seamless interchangeability between different modes of transport and reduces handling and transfer times. - Efficiency: Streamlining loading, unloading, and storage processes, reducing transit times, and minimizing damage and loss during transit. - Security: Enhancing cargo security through sealed containers, reducing the risk of theft, tampering, and damage.



	<p>-Scalability: Allowing for the efficient handling of large volumes of cargo, supporting economies of scale and global trade.</p> <p>3.Exercise (5 minutes) – Summarising</p>
Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Suggested Reading: https://www.slideshare.net/0907688150/transportation-59973396 <p>Spend 5 minutes to wrap up and consolidate the learnings.</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



Lesson Plan No. 3.2	Course Name: Logistics & Supply Chain Management Topic Selection of transportation mode	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: Gain a comprehensive understanding of the various transportation modes a)available in supply chain management, including road, rail, air, ocean, and multimodal options.
Teaching Aids (if any)	a. Power Point Presentation b. White Board
Teaching Development	1.Introduction (5 minutes) - Explain that transportation mode selection involves choosing the most appropriate method of transporting goods based on various factors such as distance, speed, cost, reliability, and nature of the cargo. - Explain that the lesson will explore the factors influencing transportation mode selection and the different modes of transportation available in supply chain management. 2.Development (30 minutes) a) Discuss the key factors that influence the selection of transportation mode: b) Explain how these factors interact and influence transportation mode selection decisions in supply chain management. c) Introduce the main modes of transportation available in supply chain management: - Road Transportation: Utilization of trucks and other motor vehicles for transporting goods over land, offering flexibility, accessibility, and door-to-door delivery options. - Rail Transportation: Movement of freight by railroads, providing cost-effective, fuel-efficient, and environmentally friendly transportation for long-distance shipments. - Air Transportation: Rapid movement of goods by air cargo carriers, offering high-speed delivery, global reach, and time-sensitive transportation options. - Ocean Transportation: Shipping of goods via ocean vessels, suitable for large volumes of cargo, long-distance transportation, and international trade. - Intermodal Transportation: Combination of multiple transportation modes (e.g., rail, truck, and ocean) to optimize transit times, costs, and service levels. d)Discuss the advantages, disadvantages, and typical use cases for each transportation mode. 3.Exercise (5 minutes) – Summarising



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Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Suggested Reading: https://www.inboundlogistics.com/articles/containerized-cargo/ <p>Spend 5 minutes to wrap up and consolidate the learnings.</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



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Lesson Plan No. 3.3	Course Name: Logistics & Supply Chain Management Topic Warehousing: Concept	Course No: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: <ul style="list-style-type: none"> a. Define warehousing and explain its significance in logistics and supply chain management. b. Understand the key components and functions of a warehouse, including storage, inventory management, and distribution.
Teaching Aids (if any)	<ul style="list-style-type: none"> a. Power Point Presentation b. White Board
Teaching Development	<p>1. Introduction (5 minutes)</p> <ul style="list-style-type: none"> - Define warehousing as the storage and management of goods and materials within a facility, known as a warehouse, to support production, distribution, and customer service activities. - Explain that the lesson will explore the concept of warehousing, its role in supply chain management, and the key functions performed within warehouses. - <p>2. Development (30 minutes)</p> <ul style="list-style-type: none"> a) Discuss the concept of warehousing and its role in supply chain management. b) Explain how warehousing contributes to supply chain efficiency, flexibility, and customer satisfaction. c) Key aspects of the warehousing concept include: <ul style="list-style-type: none"> - Storage - Inventory Management - Order Fulfillment - Transportation Interface - Risk Mitigation d) Provide examples illustrating the role of different types of warehouses in supporting supply chain operations. <p>3. Exercise (5 minutes) – Summarising</p>
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.
	Spend 5 minutes to wrap up and consolidate the learnings.



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Evaluation

Reflective Questions (What, why, Who?). Allow students to answer and discuss.

Spend 5 minutes to evaluate student assimilation of the lesson contents



Lesson Plan No. 3.4	Course Name: Logistics & Supply Chain Management Topic Warehousing: types & functions	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: a. Define warehousing and explain its significance in logistics and supply chain management. b. Understand the key components and functions of a warehouse, including storage, inventory management, and distribution.
Teaching Aids (if any)	a. Power Point Presentation b. White Board
Teaching Development	1.Introduction (5 minutes) - Define warehousing as the storage and management of goods and materials within a facility to support production, distribution, and logistics operations. - Explain that the lesson will explore the different types of warehouses and their functions within the supply chain. 2.Development (30 minutes) a) Discuss the various types of warehouses commonly used in supply chain management: - Private Warehouse -Public Warehouse: - Bonded Warehouse - Field Warehouse - Cold Storage Warehouse - Distribution Warehouse - Buffer Storage Warehouse - Export & Import Warehouse b) Explain the characteristics, purposes, and typical use cases for each type of warehouse. c) Discuss the primary functions performed by warehouses in the supply chain. d) Explain how these functions contribute to the overall efficiency, effectiveness, and responsiveness of supply chain operations. 3.Exercise (5 minutes) – Summarising



Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Homework: Assign students to research a specific aspect of logistics (e.g., transportation modes, inventory management techniques) and present their findings in the next class.3. Suggested Reading:<ul style="list-style-type: none">- https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf-Supply chain management process, system. N. Chandrasekaran Oxford University Press 3rd(2023)-Textbook of Logistics and Supply Chain Management DK Agrawal <p>Spend 5 minutes to wrap up and consolidate the learning</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



Lesson Plan No. 3.5	Course Name: Logistics & Supply Chain Management Topic Warehousing strategy	Course No.: BCMMI 605A
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Objectives	At end of the lesson the student shall be able to: the Understand how efficient warehousing strategies lead to better inventory control, a)ensuring the right stock levels are maintained to meet demand while minimizing excess inventory and associated costs.
Teaching Aids (if any)	a. Power Point Presentation b. White Board
Teaching Development	<p>1.Introduction (5 minutes)</p> <ul style="list-style-type: none">- Explain that warehousing strategy involves the planning and management of warehouse operations to efficiently store, handle, and distribute goods within the supply chain.- Explain that the lesson will explore the key components and considerations of warehousing strategy. <p>2.Development (30 minutes)</p> <p>a)Discuss</p> <ul style="list-style-type: none">- Overall corporate objectives & logistical objectives with regard to growth of the company.- Environmental Scenario- Firm's resources <p>b)A comprehensive study of:</p> <ul style="list-style-type: none">- Centralized or decentralized warehouses- Locations of the warehouses- The cost of the warehousing <p>c) Discuss Strengths & Weaknesses of Centralized Warehouses & Decentralized Warehouses.</p> <p>d) Discuss the Factors for The Selection of Number And Location Of Warehouse.</p> <p>3.Exercise (5 minutes) – Summarising</p>
Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Homework: Assign students to research a specific aspect of logistics (e.g., transportation modes, inventory management techniques) and present their findings in the next class.



	<p>3. Suggested Reading:</p> <ul style="list-style-type: none">- https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf-Supply chain management process, system. N. Chandrasekaran Oxford University Press 3rd(2023)-Textbook of Logistics and Supply Chain Management DK Agrawal <p>Spend 5 minutes to wrap up and consolidate the learning</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



Lesson Plan No. 3.6	Course Name: Logistics & Supply Chain Management Topic Warehouse Design & Operation Mechanism of Warehouse	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: Gain a comprehensive understanding of the various processes involved in a warehouse operations, including receiving, storage, picking, packing, and shipping.
Teaching Aids (if any)	a. Power Point Presentation b. White Board
Teaching Development	1. Introduction (5 minutes) <ul style="list-style-type: none">- Explain that warehouse design encompasses the layout, structure, and configuration of warehouse facilities to optimize storage space, material flow, and operational efficiency.- Introduce the concept of warehouse operation mechanisms as the processes, systems, and technologies used to manage warehouse activities and facilitate the movement and storage of goods.- Explain that the lesson will explore the principles, strategies, and best practices related to warehouse design and operation mechanisms. 2. Development (30 minutes) <ul style="list-style-type: none">a) Discuss the key elements of warehouse design:<ul style="list-style-type: none">- Purpose of the facility- Layout of the facility- Warehouse Space Requirement and Aisle Layoutb) Discuss various elements of total warehouse operation system are:<ul style="list-style-type: none">- Receiving And Stocking System- Hiring And Training Personnel- Developing A Working Procedure System- Developing Security System- Billing And Inventory Management System- Local Delivery System- Safety And Maintenance Systemc) Emphasize the importance of warehouse design and operation mechanism in supply chain management, as they directly impact inventory management, order fulfilment, productivity, and customer service.



	Exercise (5 minutes) – Summarising and group discussion
Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Homework: Assign students to research a specific aspect of logistics (e.g., transportation modes, inventory management techniques) and present their findings in the next class.3. Suggested Reading: - https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf -Supply chain management process, system. N. Chandrasekaran Oxford University Press 3rd(2023) -Textbook of Logistics and Supply Chain Management DK Agrawal <p>Spend 5 minutes to wrap up and consolidate the learning</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



Lesson Plan No. 3.7	Course Name: Logistics & Supply Chain Management Topic: Decision environment	Course No.: BCMMI 605A
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Objectives	<p>At the end of the lesson, the student shall be able to:</p> <ol style="list-style-type: none"> Identify the key decision areas within supply chain management. Analyze various decision-making frameworks and tools applicable to SCM. Evaluate the impact of different decisions on supply chain performance. Apply decision-making techniques to solve realistic supply chain problems.
Teaching Aids (if any)	<ol style="list-style-type: none"> ICT
Teaching Development	<ul style="list-style-type: none"> • Introduction (5 minutes): <ul style="list-style-type: none"> ○ Ask questions: <ul style="list-style-type: none"> ○ What are some of the challenges faced by supply chain managers? ○ What types of decisions do supply chain managers have to make? ○ How can data and technology improve decision-making in SCM? ○ 2. Development (20 minutes): <ul style="list-style-type: none"> • Key Decision Areas in SCM: <ul style="list-style-type: none"> • Strategic Decisions (e.g., network design, facility location, long-term capacity planning) • Tactical Decisions (e.g., inventory management, transportation planning, production scheduling) • Operational Decisions (e.g., order fulfillment, dispatching, routing) • Decision-Making Frameworks and Tools: <ul style="list-style-type: none"> • Quantitative Methods: Linear programming, simulation, optimization algorithms, statistical analysis. • Qualitative Methods: SWOT analysis, scenario planning, Delphi technique. • Decision Support Systems (DSS): ERP systems, supply chain planning software. • Impact of Decisions on Supply Chain Performance: <ul style="list-style-type: none"> • Cost, Service Level, Responsiveness, Resilience, Sustainability. • Trade-offs between different performance metrics. (e.g., cost vs. service)



	<ul style="list-style-type: none">• Examples of Decision Scenarios:• Choosing a supplier.• Optimizing inventory levels.• Designing a transportation network.• Responding to a supply disruption. <p>3. Exercise Case Study Analysis:</p>
Closure	<p>Summarize the Lesson Learning Outcomes and get affirmation from students on these.</p> <p>Homework: Tell students to go through the concept</p> <p>Suggested Reading: https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf</p> <p>-Supply chain management process, system. N. Chandrasekaran Oxford University Press 3rd(2023)</p> <p>-Textbook of Logistics and Supply Chain Management DK Agrawal</p> <p>Spend 5 minutes to wrap up and consolidate the learning</p>
Evaluation	<p>1. 1. Reflective Questions (What, Why, How?):</p> <ul style="list-style-type: none">- What are the key factors to consider when making supply chain decisions?- Why is it important to use a structured approach to decision-making in SCM?- How can data analytics be used to improve supply chain decision-making? <p>2. Q&A session.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents.</p>



Lesson Plan No. 4.1	Course Name: Logistics & Supply Chain Management Topic: Meaning & Dimension of performance measurement	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: Understand the purpose of performance measurement, including improving decision- making, identifying areas for improvement, and evaluating the success of strategies.
Teaching Aids (if any)	ICT
Teaching Development	<p>1.Introduction (5 minutes)</p> <ul style="list-style-type: none">- Introduce the topic of performance measurement.- Discuss the importance of performance measurement in various contexts such as business, education, healthcare, etc.- Provide an overview of what will be covered during the lesson. <p>2.Development (30 minutes)</p> <ol style="list-style-type: none">a. Define performance measurement as the process of quantifying the efficiency and effectiveness of an action or process.b. Discuss the purpose of performance measurement, which includes improving decision-making, identifying areas for improvement, and evaluating the success of strategies.c. Explain that performance measurement involves setting benchmarks or standards and then comparing actual performance against these benchmarks.d. Discuss 3 dimensions of performance measurement, namely:<ul style="list-style-type: none">- Internal performance measurement: Cost, Customer Service, Asset Management, Quality, Productivity- External performance measurement: Customer performance measurement, Competitive performance measurement- Comprehensive supply chain performance measurement <p>3.Exercise (5 minutes) – Summarising</p>



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Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Suggested Reading: https://theintactone.com/2019/08/05/scim-u3-topic-2performancemeasurement-dimension-tools-of-performance-measurement/ <p>Spend 5 minutes to wrap up and consolidate the learnings.</p>
Evaluation	Reflective Questions (What, why, Who?). Allow students to answer and discuss.
	Spend 5 minutes to evaluate student assimilation of the lesson contents



Lesson Plan No. 4.2	Course Name: Logistics & Supply Chain Management Topic: Tools of performance measurement	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: Gain knowledge of various tools used for performance measurement, such as balanced scorecards, dashboards, benchmarking, and financial metrics. They will understand the strengths and weaknesses of each tool and know how to choose the most suitable ones for specific scenarios
Teaching Aids (if any)	a. Power Point Present
Teaching Development	<p>1.Introduction (5 minutes) Ask questions</p> <ul style="list-style-type: none">- Explain various tools and techniques used for performance measurement.- Emphasize the importance of selecting appropriate tools to effectively measure and evaluate performance in different contexts. <p>2.Development (30 minutes)</p> <ul style="list-style-type: none">a. Discuss Activity-Based Costing (ABC) and how Activity-Based Costing (ABC) Works.b. Discuss benefits of Activity-based Costing.c. How Activity Based Costing is different from Traditional Costing Method?d. Define Key Performance Indicators (KPIs) as specific metrics used to evaluate the performance of an organization, department, process, or individual.e. Discuss the characteristics of effective KPIs, such as being relevant, measurable, achievable, and aligned with organizational goals.f. Provide examples of common KPIs across various industries, such as sales revenue, customer satisfaction score, employee turnover rate, and production efficiency. <p>3.Exercise (5 minutes) – Summarising</p>
Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Suggested Reading: https://www.sagesoftware.co.in/blogs/abc-analysis-in-inventory-management/
	Spend 5 minutes to wrap up and consolidate the learnings.



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Evaluation	Reflective Questions (What, why, Who?). Allow students to answer and discuss. Spend 5 minutes to evaluate student assimilation of the lesson contents
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Lesson Plan No. 4.3	Course Name: Logistics & Supply Chain Management Topic: Tools of performance measurement	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: Gain knowledge of various tools used for performance measurement, such as balanced scorecards, dashboards, benchmarking, and financial metrics. They will understand the strengths and weaknesses of each tool and know how to choose the most suitable ones for specific scenarios.
Teaching Aids (if any)	ICT tools
Teaching Development	<p>1.Introduction (5 minutes) Ask questions:</p> <ul style="list-style-type: none"> - What do you understand by Performance Measurement? - What are the various benefits of Activity Based Costing? -Provide an overview of what will be covered during the lesson. <p>2.Development (30 minutes)</p> <ol style="list-style-type: none"> a. Define benchmarking as the process of comparing organizational performance against industry standards or best practices. b. Discuss 5 essential phases, namely; planning, analysis, integration, action and maturity. c. Discuss the benefits of benchmarking, including identifying areas for improvement, setting realistic performance targets, and gaining insights from competitors or peers. d. Explain different types of benchmarking, such as internal benchmarking (comparing performance within the same organization) and external benchmarking (comparing performance with external organizations) <p>3.Exercise (5 minutes) – Summarising</p>
Closure	<ol style="list-style-type: none"> 1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading: https://egyankosh.ac.in/bitstream/123456789/11530/1/Unit-12.pdf <p>Spend 5 minutes to wrap up and consolidate the learnings.</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



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Lesson Plan No. 4.4	Course Name: Logistics & Supply Chain Management Topic: Recent Developments in Supply Chain Performance Measurement	Course No: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: -Grasp the historical context of supply chain performance measurement and recognize the factors that have driven its evolution over time.
Teaching Aids (if any)	a. Power Point Presentation
Teaching Development	<p>1.Introduction (5 minutes)</p> <p>Ask questions</p> <ul style="list-style-type: none">- Do you know any recent development in SCM give an example- Emphasize the importance of staying updated with emerging trends and technologies in supply chain management to enhance efficiency, agility, and competitiveness.- Provide an overview of what will be covered during the lesson, focusing on the tools and technologies that are transforming supply chain performance measurement. <p>2.Development (30 minutes)</p> <p>Discuss the evolving landscape of supply chain performance measurement,</p> <ol style="list-style-type: none">a. highlighting the need for advanced tools and technologies to address growing complexities and uncertainties.b. Explain how recent developments are driven by factors such as globalization, digitalization, customer expectations, sustainability, and supply chain disruptions.c. Introduce the key themes and trends shaping supply chain performance measurement, including real-time visibility, predictive analytics, supply chain orchestration, sustainability metrics, and resilience.d. Define IoT and its application in supply chain management for capturing realtime data from interconnected devices, sensors, and assets.e. Discuss how IoT enables enhanced visibility, tracking, monitoring, and optimization of supply chain processes, leading to improved performance metrics such as on-time delivery, inventory accuracy, and asset utilization.f. Explain blockchain technology and its potential to revolutionize supply chain transparency, traceability, and trust among stakeholders.g. Introduce AI and ML techniques for analyzing vast amounts of supply chain data to derive actionable insights and predictive models.



	<p>3.Exercise (5 minutes) – Summarising</p>
Closure	<p>1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.</p> <p>2. Suggested Reading: https://www.vlinkinfo.com/blog/top-emerging-trends-in-supplychainmanagement/</p> <p>Spend 5 minutes to wrap up and consolidate the learnings.</p>
Evaluation	<p>Reflective Questions (What, why, Who?).</p> <ul style="list-style-type: none">- What is IOT- Define Block chain <p>Allow students to answer and discuss.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



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Lesson Plan No. 4.5	Course Name: Logistics & Supply Chain Management Topic: The Balanced Scorecard Approach	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: Grasp the fundamentals of the balanced scorecard approach as a strategic performance management framework that translates an organization's mission and strategy into a comprehensive set of performance measures.
Teaching Aids (if any)	a. Power Point Presentation b. White Board
Teaching Development	<p>1. Introduction (5 minutes)</p> <ul style="list-style-type: none">- introduce the topic of the balanced scorecard (BSC) approach.- Explain that the balanced scorecard is a strategic performance management framework used by organizations to translate their vision and strategy into tangible objectives and measures.- Highlight the importance of the balanced scorecard in aligning organizational activities with strategic goals and improving overall performance. <p>Development (30 minutes)</p> <ol style="list-style-type: none">a. Define the balanced scorecard as a strategic management tool that provides a comprehensive view of an organization's performance from multiple perspectives.b. Introduce the four key perspectives of the balanced scorecard: financial, customer, internal processes, and learning and growth.c. Explain how each perspective contributes to achieving the organization's strategic objectives and how they are interconnected.d. Discuss components of the Balanced Scorecard:<ul style="list-style-type: none">- Financial Perspective: Discuss the financial perspective of the balanced scorecard, which focuses on financial performance metrics such as revenue growth, profitability, return on investment (ROI), and cash flow.- Customer Perspective: Explain the customer perspective of the balanced scorecard, which emphasizes metrics related to customer satisfaction, retention, loyalty, and market share.- Internal Processes Perspective: Discuss the internal processes perspective of the balanced scorecard, which focuses on metrics related to operational efficiency, quality, innovation, and supply chain management.- Learning and Growth Perspective:



	<p>Explain the learning and growth perspective of the balanced scorecard, which includes metrics related to employee training, skills development, organizational culture, and innovation.</p> <p>3.Exercise (5 minutes) – Summarising</p>
Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Suggested Reading: https://www.investopedia.com/terms/b/balancedscorecard.asp5 minutes to wrap up and consolidate the learnings. Spend
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



Lesson Plan No. 4.6	Course Name: Logistics & Supply Chain Management Topic: Supply chain planning	Course No.: BCMMI 605A
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Objectives	At the end of the lesson, the student shall be able to: a. Explain the importance of supply chain planning in a dynamic business environment. b. Analyze the key components of a comprehensive supply chain plan. c. Evaluate different planning methodologies and their applicability in various scenarios.
Teaching Aids (if any)	b. ICT
Teaching Development	1. Introduction (5 minutes): Ask students: -What caused the disruption? -How could it have been avoided or mitigated? 2. Development (20 minutes): <ul style="list-style-type: none">• Key Components of a Supply Chain Plan:• Planning Methodologies:• Sales and Operations Planning (S&OP): A collaborative process that aligns sales, marketing, operations, and finance plans.• Advanced Planning and Scheduling (APS): Using sophisticated software to optimize complex supply chain plans.• Scenario Planning: Discuss the importance of developing contingency plans for different scenarios (e.g., sudden increase in demand, supply disruptions). 3. Exercise (15 minutes): Group Activity: Divide students into groups and ask them to: Identify the key planning challenges faced by the company. Develop a supply chain plan to address these challenges. Present their findings and recommendations to the class.
Closure	Summarize the Lesson Learning Outcomes and get affirmation from students on these. Homework: Tell students to go through the concept of Supply chain planning



	<p>Suggested Reading:</p> <p>https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf</p> <p>https://www.google.com/search?sca_esv=916f976dcb036752&q=supply+chain+planning&udm=7&fbs=ABzOT_DbUoXV9d3f6LsLPD3ftI-OuFzx</p> <p>-Supply chain management process, system. N. Chandrasekaran Oxford University Press 3rd(2023)</p> <p>-Textbook of Logistics and Supply Chain Management DK Agrawal</p> <p>Spend 5 minutes to wrap up and consolidate the learning</p>
Evaluation	<p>3. Reflective Questions (What, Why, How?):</p> <ul style="list-style-type: none"> - What are the benefits of effective supply chain planning? - Why is collaboration important in supply chain planning? <p>Q&A session to address any doubts or questions.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents.</p>



Lesson Plan No. 4.7	Course Name: Logistics and supply chain management Topic: supply chain planning	Course No.: BCMMI605A
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Objectives	At the end of the lesson the student shall be able to: a. What comes to mind when you hear the term "supply chain"? b. Why do you think planning is important in a supply chain? c. What are some of the challenges in planning a supply chain?
Teaching Aids (if any)	c. ICT
Teaching Development	<ol style="list-style-type: none"> Introduction Ask Questions <ul style="list-style-type: none"> - What comes to mind when you hear the term "supply chain"? - Why do you think planning is important in a supply chain? - What are some of the challenges in planning a supply chain? Development <ul style="list-style-type: none"> - Define Supply Chain Planning (SCP): The process of coordinating and integrating all supply chain activities, from demand forecasting to production and distribution, to meet customer needs efficiently and effectively. It involves making decisions about inventory, capacity, production, and distribution. - Explain why it's important: Improved forecast accuracy, optimized inventory levels, reduced costs, enhanced customer service, increased profitability, better responsiveness to changes in demand. - Discuss the key components of a strong SCP process: <ul style="list-style-type: none"> - Demand Planning: Forecasting customer demand using historical data, market trends, and other relevant information. Discuss techniques like moving average, exponential smoothing and causal modeling. - Supply Planning: Determining how to meet demand by managing production capacity, inventory levels, and supplier relationships. Discuss capacity planning, master production scheduling and material requirements planning. - Sales & Operations Planning (S&OP): A process for balancing supply and demand, involving collaboration between sales, marketing, operations, and finance. - Inventory Planning: Determining optimal inventory levels to minimize holding costs while ensuring



	<p>product availability. Discuss different inventory models and their applications.</p> <ul style="list-style-type: none">- Provide examples of companies with effective SCP and analyze what makes them successful. (e.g., Amazon, Walmart – choose examples relevant to your students).- Discuss the various tools and technologies used for SCP (e.g., ERP systems, advanced planning and scheduling (APS) software). <p>3. Exercise (5 minutes):</p> <p>Small Group Discussion: Students brainstorm potential challenges in supply chain planning for a specific industry (e.g., fashion, electronics, food).</p>
Closure	<p>Summarize the Lesson Learning Outcomes and get affirmation from students.</p> <p>Homework:</p> <ul style="list-style-type: none">o Students should research different supply chain planning software solutions.o Encourage students to find articles or case studies about companies that have successfully implemented SCP. <p>Suggested Readings:</p> <ul style="list-style-type: none">• Supply Chain Management Review articles• Journal of Operations Management articles• Textbooks on Supply Chain Management
Evaluation	<p>Evaluation</p> <ol style="list-style-type: none">1. <ul style="list-style-type: none">- What are the three most important components of supply chain planning?- Why is collaboration important in S&OP?- How can technology improve supply chain planning?2. Short quiz on key supply chain planning concepts.3. Q&A session to address any doubts or questions. <p>Spend 5 minutes to evaluate student assimilation of the lesson contents.</p>



Lesson Plan No. 5.1	Course Name: Logistics & Supply Chain Management Topic: The Greening of Supply Chain; concept of Micro fulfillment Centre	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: -Grasp the fundamentals of sustainable supply chain management and its importance in reducing environmental impact, improving social responsibility, and enhancing economic viability.
Teaching Aids (if any)	a. Power Point Presentation
Teaching Development	<p>1. Introduction (5 minutes)</p> <p>Ask questions</p> <ul style="list-style-type: none"> - What is sustainability - Can we make SCM sustainable <p>2. Development (30 minutes)</p> <ul style="list-style-type: none"> a. Define sustainable supply chain management as the integration of environmentally friendly practices, social responsibility, and economic viability throughout the supply chain. b. Discuss the key strategies for greening the supply chain, including: <ul style="list-style-type: none"> - Reducing carbon emissions through transportation optimization, route optimization, and use of alternative fuels. - Minimizing waste through recycling, waste reduction, and sustainable packaging. - Promoting ethical sourcing and production practices to ensure fair labor conditions and minimize environmental impact. <p>3. Exercise (5 minutes) – Summarising</p>
Closure	<ol style="list-style-type: none"> 1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading: https://www.edureka.co/blog/green-supply-chain-management <p>Spend 5 minutes to wrap up and consolidate the learnings.</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



Model Institute of Engineering & Technology (Autonomous) Lesson Plan

Kot, Bhalwal, Jammu



Dr. Arun K. Gupta Teaching-Learning Centre

Version 1.1



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Lesson Plan No. 5.2	Course Name: Logistics & Supply Chain Management Topic: The Greening of Supply Chain; concept of Micro fulfillment Centre	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: Grasp the fundamentals of sustainable supply chain management and its importance in reducing environmental impact, improving social responsibility, and enhancing economic viability.
Teaching Aids (if any)	a. Power Point Presentation b. White Board
Teaching Development	<p>1.Introduction (5 minutes)</p> <p>-Provide an overview of the concept of micro fulfillment centers and their role in optimizing order fulfillment processes in urban areas.</p> <p>Development (30 minutes)</p> <ul style="list-style-type: none"> • Highlight the benefits of sustainable supply chain management, such as cost savings, risk mitigation, brand reputation enhancement, and regulatory compliance. • Introduce the concept of micro fulfillment centers (MFCs) as small-scale distribution facilities designed to optimize order fulfillment processes, particularly in densely populated urban areas. • Discuss the design and operational aspects of micro fulfillment centers, including: <ol style="list-style-type: none"> 1. Compact footprint and modular design to fit within urban environments and existing retail spaces. 2. Automated order picking and packing systems to maximize efficiency and accuracy. 3. Integration of technology such as robotics, AI, and IoT for real-time inventory management and order processing. 4. Explain how micro fulfillment centers enable retailers and e-commerce companies to fulfill orders faster, reduce last-mile delivery costs, and improve customer satisfaction. 5. Exercise (5 minutes) – Summarising and grup discussion
Closure	<p>1.Summarize the Lesson Learning Outcomes and get affirmation from students on these.</p> <p>2.Suggested Reading: https://wareiq.com/resources/blogs/micro-fulfillment-center/</p> <p>Spend 5 minutes to wrap up and consolidate the learnings.</p>



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Evaluation

Reflective Questions (What, why, Who?). Allow students to answer and discuss.

Spend 5 minutes to evaluate student assimilation of the lesson contents





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Lesson Plan No. 5.3	Course Name: Logistics & Supply Chain Management Topic: Innovations & sustainability in Supply Chains	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: Grasp the significance of innovation and sustainability in modern supply chain management and recognize how these concepts contribute to economic, social, and environmental objectives.
Teaching Aids (if any)	a. Power Point Presentation b. White Board
Teaching Development	<p>1. Introduction (5 minutes)</p> <ul style="list-style-type: none"> - Introduce the topic of innovations and sustainability in supply chains, focusing on fulfillment centers. - Emphasize the importance of addressing sustainability challenges in supply chain operations while exploring innovative solutions. - Provide an overview of what will be covered during the lesson, highlighting the significance of sustainability initiatives and technological advancements in fulfillment centers. <p>2. Development (30 minutes)</p> <ul style="list-style-type: none"> a. Discuss recent innovations in supply chain management, including technological advancements, process improvements, and sustainability initiatives. b. Explore the role of emerging technologies such as Internet of Things (IoT), artificial intelligence (AI), blockchain, and robotics in enhancing supply chain visibility, efficiency, and sustainability. c. Highlight examples of innovative supply chain practices, such as predictive analytics for demand forecasting, collaborative platforms for supplier management, and circular economy initiatives for waste reduction and resource optimization. d. Define sustainability in the context of fulfillment centers and discuss its importance in reducing environmental impact, improving social responsibility, and achieving economic efficiency. e. Explore sustainable practices and initiatives implemented in fulfillment centers, such as energy-efficient building design, renewable energy integration, waste reduction, and recycling programs. <p>3. Exercise (5 minutes) – Summarising</p>





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Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Suggested Reading:
	<p>https://www.procurious.com/procurement-news/the-sustainable-supplychaininnovations-shaping-the-future Spend 5 minutes to wrap up and consolidate the learnings.</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



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Lesson Plan No. 5.4	Course Name: Logistics & Supply Chain Management Topic: Current and next generation ICT in Supply Chain	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: Grasp the significance of ICT in enabling efficient and effective supply chain management. They will recognize how ICT facilitates the flow of information, enhances visibility, and enables collaboration among supply chain partners.
Teaching Aids (if any)	a. Power Point Presentation b. White Board
Teaching Development	<p>1. Introduction (5 minutes)</p> <ul style="list-style-type: none"> - Introduce the topic of current and next-generation ICT (Information and Communication Technology) in supply chain fulfillment centers. - Explain the significance of ICT in optimizing supply chain operations, enhancing efficiency, and improving customer satisfaction. - Provide an overview of what will be covered during the lesson, emphasizing the importance of staying updated with the latest ICT advancements in fulfillment centers. <p>2. Development (30 minutes)</p> <ol style="list-style-type: none"> a. Discuss the current ICT trends and technologies commonly used in supply chain fulfillment centers. b. Explore the role of technologies such as Warehouse Management Systems (WMS), Enterprise Resource Planning (ERP) systems, barcode and RFID technology, and Transportation Management Systems (TMS) in streamlining warehouse operations, inventory management, and transportation planning. c. Highlight examples of how these ICT tools improve order accuracy, inventory visibility, labor efficiency, and overall supply chain performance in fulfillment centers. d. Introduce next-generation ICT innovations that are shaping the future of supply chain fulfillment centers. e. Discuss emerging technologies such as Internet of Things (IoT) sensors, robotics and automation, artificial intelligence (AI) and machine learning, blockchain, and augmented reality (AR) in the context of fulfillment center operations. f. Highlight the benefits of adopting next-generation ICT innovations, including increased efficiency, reduced costs, enhanced scalability and flexibility, and improved customer experience. <p>Exercise (5 minutes) – Summarising</p>



Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Suggested Reading: https://www.futurelearn.com/info/courses/supplychaininnovation/0/steps/19215 <p>Spend 5 minutes to wrap up and consolidate the learnings.</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



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Lesson Plan No. 5.5	Course Name: Logistics & Supply Chain Management Topic: Evolution of Robotics in Warehouse Management	Course No.: BCMMI 605A
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Objectives	At the end of the lesson the student shall be able to: Grasp the evolution of robotics in warehouse management, from early automation technologies to advanced robotics solutions used in modern warehouses.
Teaching Aids (if any)	a. Power Point Presentation b. White Board
Teaching Development	<p>1. Introduction (5 minutes)</p> <ul style="list-style-type: none">- Introduce the topic of the evolution of robotics in warehouse management.- Explain the importance of robotics in revolutionizing warehouse operations, improving efficiency, and enhancing productivity in fulfillment centers.- Provide a brief overview of what will be covered during the lesson, emphasizing the historical context and the transformative role of robotics in warehouse management. <p>a. Development (30 minutes): Discuss the early automation efforts in warehouse management, including the use of conveyor systems and manual mechanical handling equipment.</p> <p>b. Highlight the challenges and limitations of early automation efforts, such as limited flexibility, scalability, and adaptability to changing demands.</p> <p>c. Introduce the emergence of robotics in warehouse management, marking a significant shift towards more advanced and flexible automation solutions.</p> <p>d. Discuss the development of Automated Storage and Retrieval Systems (AS/RS), which use robotic arms to automatically store and retrieve goods from racks or shelves.</p> <p>e. Highlight how robotics technology enables greater flexibility, efficiency, and accuracy in warehouse operations compared to traditional automation solutions.</p> <p>f. Discuss modern robotics applications and innovations in warehouse management, including robotic picking systems, robotic palletizers, and drones for inventory management and surveillance.</p> <p>g. Explore how advancements in robotics technology, such as improved sensors, artificial intelligence (AI), and machine learning, are driving innovation and enabling new capabilities in warehouse operations.</p> <p>h. Highlight the benefits of modern robotics solutions, such as increased throughput, reduced labor costs, improved inventory accuracy, and enhanced safety.</p> <p>3. Exercise (5 minutes) – Summarising</p>



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Closure	<ol style="list-style-type: none">1. Summarize the Lesson Learning Outcomes and get affirmation from students on these.2. Suggested Reading: https://www.greycorange.com/amrs/warehouse-automation-101/ <p>Spend 5 minutes to wrap up and consolidate the learnings.</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



Lesson Plan No. 5.6	Course Name: Logistics & Supply Chain Management Topic: SCM security management	Course No.: BCMMI 605A
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Objectives	At the end of the lesson, the student shall be able to: a. Define supply chain security and its importance. b. Identify common security threats and vulnerabilities in supply chains. c. Evaluate strategies for mitigating SCM security risks.
Teaching Aids (if any)	a. ICT
Teaching Development	<p>Introduction</p> <ul style="list-style-type: none"> • Ask questions: <ul style="list-style-type: none"> - What are the potential risks involved in moving goods and services across the globe? - Why is security important in a supply chain? - Have you heard of any supply chain disruptions? <p>2. Development</p> <ul style="list-style-type: none"> • Importance of SCM Security: Explain why SCM security is critical in today's interconnected world. Discuss the potential consequences of security breaches: <ul style="list-style-type: none"> • Financial losses • Reputational damage • Operational disruptions • Safety concerns Highlight the increasing complexity of supply chains and the resulting security challenges. • Common Security Threats and Vulnerabilities: Discuss various threats to supply chain security: <ul style="list-style-type: none"> • Theft and pilferage • Counterfeit goods • Terrorism and sabotage • Natural disasters and pandemics • Information leakage <p>Exercise (15 minutes)</p> <ul style="list-style-type: none"> • Case Study Analysis: Present students with a case study of a real-world supply chain security incident. • Students work in small groups to analyze the incident, identify the vulnerabilities that were exploited, and suggest measures to prevent similar incidents from occurring. • Groups present their findings and discuss the lessons learned.



Closure	<p>Summarize the Lesson Learning Outcomes and get affirmation from students on these.</p> <p>Homework:</p> <p>Assign students to research a specific aspect of logistics (e.g., transportation modes, inventory management techniques) and present their findings in the next class.</p> <p>Suggested Reading:</p> <p>https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf</p> <ul style="list-style-type: none">-Supply chain management process, system. N. Chandrasekaran Oxford University Press 3rd(2023)-Textbook of Logistics and Supply Chain Management DK Agrawal <p>Spent 5 minutes to wrap up and consolidate the learning</p>
Evaluation	<p>1. Reflective Questions (What, Why, How?):</p> <ul style="list-style-type: none">-What are the key challenges in securing a global supply chain?-Why is collaboration with supply chain partners essential for security?-How can technology be used to improve supply chain security? <ol style="list-style-type: none">2. Short quiz on key concepts related to SCM security, threats, and mitigation strategies.3. Q&A session to address any doubts or questions. <p>Spent 5 minutes to evaluate student assimilation of the lesson contents.</p>



Lesson Plan No. 5.7	Course Name: Logistics & Supply Chain Management Topic: SCM security management	Course No.: BCMMI 605A
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Objectives	At the end of the lesson, the student shall be able to: a. Define supply chain security and its importance. b. Identify common security threats and vulnerabilities in supply chains. c. Evaluate strategies for mitigating SCM security risks.
Teaching Aids (if any)	b. ICT
Teaching Development	<p>1. Introduction</p> <ul style="list-style-type: none"> Ask questions: <ul style="list-style-type: none"> What are the potential risks involved in moving goods and services across the globe? Why is security important in a supply chain? Have you heard of any supply chain disruptions? Define Supply Chain Security: The protection of the supply chain from intentional or unintentional disruptions, including theft, damage, fraud, terrorism, and natural disasters. <p>2. Development</p> <ul style="list-style-type: none"> Importance of SCM Security: Explain why SCM security is critical in today's interconnected world. Discuss the potential consequences of security breaches: <ul style="list-style-type: none"> Financial losses Reputational damage Operational disruptions Safety concerns Highlight the increasing complexity of supply chains and the resulting security challenges. Common Security Threats and Vulnerabilities: Discuss various threats to supply chain security: <ul style="list-style-type: none"> Theft and pilferage <ul style="list-style-type: none"> Counterfeit goods Cyberattacks (e.g., ransomware, phishing) Terrorism and sabotage Natural disasters and pandemics Information leakage Analyze vulnerabilities at different stages of the supply chain (e.g., sourcing, manufacturing, transportation, warehousing, distribution). vulnerabilities that were exploited, and suggest measures to prevent similar incidents from occurring. Groups present their findings and discuss the lessons learned.
Closure	Summarize the Lesson Learning Outcomes and get affirmation from students on these.



	<p>Homework: Assign students to research a specific aspect of logistics (e.g., transportation modes, inventory management techniques) and present their findings in the next class.</p> <p>Suggested Reading: https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf -Supply chain management process, system. N. Chandrasekaran Oxford University Press 3rd(2023) -Textbook of Logistics and Supply Chain Management DK Agrawal</p> <p>Spend 5 minutes to wrap up and consolidate the learning</p>
<p>Evaluation</p>	<p>Reflective Questions (What, Why, How?): -What are the key challenges in securing a global supply chain? -Why is collaboration with supply chain partners essential for security? -How can technology be used to improve supply chain security? - Short quiz on key concepts related to SCM security, threats, and mitigation strategies.</p> <p>Q&A session to address any doubts or questions.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents.</p>



Lesson Plan No. 5.8	Course Name: Logistics & Supply Chain Management Topic: SCM e- commerce	Course No.: BCMMI 605A
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Objectives	At the end of the lesson, the student shall be able to: a. Explain the impact of e-commerce on traditional supply chain management. b. Analyze the key challenges and opportunities in integrating e-commerce and SCM. c. Evaluate strategies for optimizing supply chain processes in the context of e-commerce.
Teaching Aids (if any)	c. ICT
Teaching Development	<p>1. Introduction</p> <ul style="list-style-type: none"> Ask questions: -How has e-commerce changed the way businesses operate? -What are some of the logistical challenges faced by online retailers? -How can technology improve the efficiency of supply chains in e-commerce? <p>2. Development</p> <ul style="list-style-type: none"> Impact of E-commerce on SCM: Challenges and Opportunities: <ul style="list-style-type: none"> Order fulfillment complexities (e.g., handling large volumes of small orders). Inventory management challenges (e.g., maintaining optimal inventory levels). Last-mile delivery complexities (e.g., reaching customers in diverse locations). Reverse logistics (handling returns efficiently). Discuss the opportunities for improving supply chain performance through e-commerce integration, such as: <ul style="list-style-type: none"> Streamlined order processing and fulfillment. Enhanced inventory visibility and control. Improved customer service and satisfaction. Reduced costs through automation and optimization. Strategies for Optimization: Discuss strategies for optimizing supply chain processes in e-commerce:
Closure	Summarize the Lesson Learning Outcomes and get affirmation from students on these. Homework: Tell students to go through the concept of SCM and E commerce



	<p>Suggested Reading:</p> <p>https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf</p> <p>-Supply chain management process, system. N. Chandrasekaran Oxford University Press 3rd(2023)</p> <p>-Textbook of Logistics and Supply Chain Management DK Agrawal</p> <p>Spend 5 minutes to wrap up and consolidate the learning</p>
<p>Evaluation</p>	<p>4. Reflective Questions (What, Why, How?):</p> <ul style="list-style-type: none">-What are the critical success factors for integrating e-commerce and SCM?-Why is real-time visibility crucial in e-commerce supply chains?- How can businesses leverage technology to optimize their e-commerce fulfillment processes? <p>5. Short quiz on key concepts related to e-commerce and SCM integration, challenges, and optimization strategies.</p> <p>6. Q&A session to address any doubts or questions.</p> <p>Spend 5 minutes to evaluate student assimilation of the lesson contents.</p>



Lesson Plan No. 5.9	Course Name: Logistics & Supply Chain Management Topic: Concept of Integrated Logistics Systems	Course No.: BCMMI 605A
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Objectives	At end of the lesson the student shall be able to: <ul style="list-style-type: none">- Understand the concept of integration in logistics and its importance in improving supply chain efficiency, reducing costs, and enhancing customer satisfaction.- Analyze the benefits of implementing integrated logistics systems, including improved coordination, reduced lead times, lower inventory holding costs, and increased customer responsiveness.
Teaching Aids (if any)	b. ICT tools
Teaching Development	<p>1. Introduction (5 minutes) Ask Questions</p> <ul style="list-style-type: none">- Define integrated logistics systems- What are the goals of supply chain and logistics- What are the benefits- What do you mean by Integrated logistics system <p>2. Development (30 minutes)</p> <p>a) Discuss the components of integrated logistics systems:</p> <ul style="list-style-type: none">- Supply Chain Management: Coordination of activities involved in sourcing, procurement, production, and distribution to meet customer demand.- Transportation Management: Efficient planning, execution, and optimization of transportation activities.- Inventory Management: Control and optimization of inventory levels to minimize costs while meeting customer demand.- Warehousing and Distribution: Management of storage facilities and distribution networks to ensure timely delivery.- Information Systems: Utilization of technology and data analytics to facilitate decision-making and improve visibility across the supply chain. <p>d) Explain how these components work together seamlessly to create an integrated logistics system that maximizes efficiency and responsiveness.</p> <p>e) Discuss the advantages of implementing integrated logistics systems:</p> <p>3. Exercise (5 minutes) : In group of four tell students to list the advantages of integrated logistics system</p>



Closure	<ol style="list-style-type: none">4. Summarize the Lesson Learning Outcomes and get affirmation from students on these.5. Homework: Assign students to research a specific aspect of logistics and present their findings in the next class.6. Suggested Reading:<ul style="list-style-type: none">- https://egyankosh.ac.in/bitstream/123456789/72273/1/Unit-1.pdf-Supply chain management process, system. N. Chandrasekaran Oxford University Press 3rd(2023)-Textbook of Logistics and Supply Chain Management DK Agrawal <p>Spend 5 minutes to wrap up and consolidate the learning .</p>
Evaluation	<p>Reflective Questions (What, why, Who?). Allow students to answer and discuss</p> <ul style="list-style-type: none">-What are the goals of SCM-Define Integrated logistics <p>Spend 5 minutes to evaluate student assimilation of the lesson contents</p>



Model Institute of Engineering & Technology (Autonomous) Lesson Plan

Kot, Bhalwal, Jammu



Dr. Arun K. Gupta Teaching-Learning Centre

Version 1.1



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