

## B.A. (VS) MATERIALS MANAGEMENT

### DSE- 5.2: Global Supply Chain Management

#### CREDIT DISTRIBUTION, ELIGIBILITY AND PRE, REQUISITES OF THE COURSE

Course Title & Code	Total Credits	Lectures	Tutorial	Practical	Eligibility criteria	Pre-requisite of the course
Global Supply Chain Management DSE – 5.2	4	3	1	-	Class XII	Nil

**Learning Objectives:** Global Supply Chain Management is a comprehensive course that provides students with a deep understanding of the complex and interconnected processes involved in managing supply chains on a global scale. The course covers key concepts, strategies, and best practices for effectively managing the flow of goods, information, and finances across international borders. Students will develop skills in analyzing, designing, and optimizing global supply chain networks, as well as in identifying and mitigating risks and challenges associated with global operations.

#### Learning Outcomes:

After completion of the course, learners will be able to:

1. analyse and evaluate global supply chain strategies and their impact on organizational performance.
2. design and optimize global supply chain networks to enhance efficiency and responsiveness.
3. identify and mitigate risks and challenges in global supply chain operations.
4. apply ethical and sustainable practices in global supply chain management.
5. Communicate and collaborate effectively in cross-functional and cross-cultural supply chain teams.

#### Unit 1: Introduction to Global Supply Chain Management

12 hours

Overview of supply chain management, Key challenges and trends in global supply chains, Global supply chain dynamics and complexities, Role of global supply chain management in organizational success, Global Supply Chain Strategy: Global sourcing strategies and supplier management, Global distribution strategies and logistics management, Global demand management and customer service, Performance measurement and metrics in global supply chains

## **Unit 2: Designing Global Supply Chain Networks**

**9 hours**

Network design considerations and decision-making, Distribution network configuration and optimization, Facility location and capacity planning in global operations, Cross-docking, hub-and-spoke, and direct delivery models

## **Unit 3: Managing Risks and Challenges in Global Supply Chains**

**8 hours**

Risk assessment and mitigation strategies, Supply chain disruptions and business continuity planning, Managing geopolitical, regulatory, and cultural challenges, Sustainability and social responsibility in global supply chains

## **Unit 4: Ethical and Sustainable Practices in Global Supply Chain Management**

**8 hours**

Ethical considerations in global supply chains, Sustainable supply chain strategies and practices, Corporate social responsibility and supplier compliance, Circular economy and reverse logistics in global supply chains.

## **Unit 5: Communication and Collaboration in Global Supply Chain Teams**

**8 hours**

Cross-functional and cross-cultural collaboration, Effective communication strategies in global supply chains, Managing conflicts and negotiations in international contexts, Building and leading global supply chain teams

### **Exercises**

1. Students will be Divided into small groups (3-4 members per group) and provide each group with a case study or scenario related to a global supply chain. The case study should include information on the company's products, markets, suppliers, distribution channels, and challenges faced in managing the global supply chain. Instruct each group to analyze the case study and discuss the following aspects:
  - a. Overview of supply chain management: Identify and describe the key components and processes involved in the company's global supply chain.
  - b. Key challenges and trends in global supply chains: Identify and discuss the major challenges and trends that the company is facing or likely to face in its global supply chain operations.
  - c. Global supply chain dynamics and complexities: Analyze the complexities and interdependencies within the company's global supply chain, including factors such as transportation, inventory management, lead times, and coordination among various stakeholders.
  - d. Role of global supply chain management in organizational success: Discuss how effective global supply chain management can contribute to the company's overall success and competitive advantage.

2. Company ABC is a multinational manufacturing company that produces and distributes automotive parts. The company operates in multiple countries and is looking to redesign its global supply chain network to improve efficiency, reduce costs, and enhance customer service. As a supply chain analyst, your task is to design an optimized supply chain network for Company ABC. Analyze the scenario and address the following aspects in your practical problem:

a. Network design considerations and decision-making:

- I. Identify and explain the key factors that should be considered when designing a global supply chain network for Company ABC.
- II. Discuss the trade-offs and challenges associated with network design decisions, such as transportation costs, lead times, inventory management, and customer service levels.

b. Distribution network configuration and optimization:

- I. Propose an optimized distribution network configuration for Company ABC's global operations.
- II. Justify your proposed configuration by considering factors such as demand patterns, product characteristics, production locations, and customer locations.
- III. Discuss how your proposed network configuration can help improve efficiency, reduce costs, and enhance customer service.

c. Facility location and capacity planning in global operations:

- I. Determine suitable locations for manufacturing plants, distribution centers (DCs), and warehouses in the proposed network configuration.
- II. Explain the factors influencing facility location decisions, such as proximity to suppliers, customers, transportation infrastructure, and labor availability.
- III. Discuss the capacity planning considerations for the chosen facilities, including storage capacity, production capacity, handling capacity, and potential future expansion.

d. Cross-docking, hub-and-spoke, and direct delivery models:

- I. Evaluate the suitability of cross-docking, hub-and-spoke, and direct delivery models for Company ABC's global supply chain.
- II. Compare and contrast the advantages, disadvantages, and operational requirements of each model.
- III. Recommend the most appropriate model(s) based on Company ABC's requirements and explain the rationale behind your recommendation.

3 Company XYZ is a multinational food and beverage company that operates a global supply chain. They source raw materials from various countries, manufacture products in multiple locations, and distribute them to retail stores worldwide. As a supply chain manager at Company XYZ, you have been tasked with assessing potential risks and developing mitigation

strategies for their global supply chain operations. This application-based question requires students to analyze the given scenario, think critically, and apply their knowledge of risk assessment, mitigation strategies, supply chain disruptions, business continuity planning, geopolitical challenges, and sustainability in global supply chains. Encourage students to provide detailed justifications and practical recommendations based on the specific context of Company XYZ. Students need to:

a) Assess the geopolitical, regulatory, and cultural challenges that Company XYZ may encounter in its global supply chain operations.

b) Propose strategies to address and manage these challenges effectively. Consider factors such as political stability, trade regulations, cultural differences, and compliance requirements.

c) Discuss how building strong relationships with local stakeholders, engaging in cross-cultural training, and fostering effective communication can help overcome these challenges.

4. Students are required to answer following questions based on above case regarding Sustainability and Social Responsibility in Global Supply Chains:

a) Analyze the importance of sustainability and social responsibility in global supply chain management for Company XYZ.

b) Identify specific sustainability and social responsibility issues that are relevant to the company's supply chain operations.

c) Propose strategies to integrate sustainability practices, such as reducing carbon emissions, promoting ethical sourcing, and supporting local communities, into Company XYZ's global supply chain.

5. Students may be given assignment on the Managing conflicts and negotiations in international contexts with the help of some company.

### **Suggested Readings**

- Bolumole, Y. A., & Frankel, R. (2019). The Impact of Supply Chain Disruptions on Firm Financial Performance. *Journal of Business Logistics*, 40(2), 160-175. <https://doi.org/10.1111/jbl.12197>
- Chopra, S., & Meindl, P. (2021). *Supply Chain Management: Strategy, Planning, and Operation* (8th ed.). Pearson.
- Christopher, M. (2016). *Logistics and Supply Chain Management: Creating Value-Adding Networks* (5th ed.). Pearson.
- Council of Supply Chain Management Professionals. (n.d.). *Supply Chain Management Definitions and Glossary*. Retrieved from [https://cscmp.org/CSCMP/Educate/SCM\\_Definitions\\_and\\_Glossary\\_of\\_Terms/CSCMP/Educate/SCM\\_Definitions\\_and\\_Glossary\\_of\\_Terms.aspx](https://cscmp.org/CSCMP/Educate/SCM_Definitions_and_Glossary_of_Terms/CSCMP/Educate/SCM_Definitions_and_Glossary_of_Terms.aspx)

- Coyle, J. J., Langley Jr., C. J., Gibson, B. J., & Novack, R. A. (2019). Supply Chain Management: A Logistics Perspective (10th ed.). Cengage Learning.
- Ivanov, D., & Dolgui, A. (2017). A taxonomy of supply chain coordination approaches. In IFAC-PapersOnLine (Vol. 50, No. 1, pp. 9393-9398). Elsevier. <https://doi.org/10.1016/j.ifacol.2017.08.1445>
- Simchi-Levi, D., Kaminsky, P., & Simchi-Levi, E. (2014). Designing and Managing the Supply Chain: Concepts, Strategies, and Case Studies (3rd ed.). McGraw-Hill Education.
- Monczka, R. M., Handfield, R. B., Giunipero, L. C., & Patterson, J. L. (2020). Purchasing and Supply Chain Management (7th ed.). Cengage Learning.

**Notes:**

- **Suggested readings shall be updated and uploaded on the college website from time to time.**
- **Examination scheme and mode shall be prescribed by the Examination branch, University of Delhi from time to time.**