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# INTERNATIONAL SUMMER SCHOOL 2023

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## SYLLABUS

Academic year 2022/2023



## SUMMER SCHOOL

3 to 12 July 2023

<b>COURSE TITLE</b>	<b>Supply Chain Management; new technologies and trends</b>		
	<b>Learn about supply chain and technology, two realities of today, both in theory and in practice.</b>		
<b>Session and Campus</b>	<b>Session 1, Le Havre</b>		
<b>Teaching delivery</b>	<b>On campus, attendance mandatory</b>		
<b>Workload (1h = 60 min)</b>	<b>30 class-hours</b> + Independent learning hours	<b>ECTS credits</b>	<b>6</b>
<b>Professor</b>	<b>Mohammadali Vosooghizaji (PhD)</b> <a href="mailto:mvosoghizaji@em-normandie.fr">mvosoghizaji@em-normandie.fr</a> Assistant professor at EM Normandie Business School Supply Chain and Digital Management Department		
<b>Pre-requisite(s) for attending the course</b>	No pre-requisite is required.		
<b>Learning goal(s)</b>	<ul style="list-style-type: none"> <li>▪ To be equipped with efficient business skills through sound understanding of the important role of supply chain management in today's business environment</li> <li>▪ To do a global analysis of the firm in its environment and partners</li> <li>▪ To be a supply chain manager with a global overview and understanding of current trends in global supply chains.</li> </ul>		
<b>Learning objective(s)</b>	<p>By the end of this course participants should be able to:</p> <ul style="list-style-type: none"> <li>▪ Discuss the goal of a supply chain and explain the impact of supply chain decisions on the success of a firm</li> <li>▪ Describe the main concepts may be helpful as managers consider sustainability decisions</li> <li>▪ Identify the emerging technologies, either hardware or software, that companies are investing in, currently and in the short term.</li> </ul>		
<b>Learning outcome(s)</b>	<p>By the end of this course participants should be able to:</p> <ul style="list-style-type: none"> <li>▪ Classify the supply chain macro processes in a firm</li> <li>▪ Define the key metrics that track the performance of the supply chain in terms of each driver</li> <li>▪ Identify the limits to defining sustainable supply networks</li> <li>▪ Analyze the role of each of the logistics elements in sustainability</li> </ul>		
<b>Course description</b>	<p><b>1: Understanding the Supply Chain</b> - This module focuses on the following topics:</p> <ul style="list-style-type: none"> <li>• What is a supply chain?</li> <li>• The objective of a supply chain</li> <li>• The importance of supply chain decisions</li> <li>• Decision phases in a supply chain</li> <li>• Process views of a supply chain</li> <li>• Examples of supply chains</li> </ul> <p><b>2: Supply chain Performance: Achieving Strategic fit and scope</b> - This module focuses on the following topics:</p> <ul style="list-style-type: none"> <li>• Competitive and supply chain strategies</li> <li>• Achieving strategic fit</li> <li>• Expanding strategic scope</li> <li>• Challenges to achieving and maintaining strategic fit</li> </ul>		

**3: Supply Chain Drivers and Metrics**– This module focuses on the following topics:

- Financial measures of performance
- Drivers of supply chain performance
- Framework for structuring drivers
- Facilities
- Inventory
- Transportation
- Information
- Sourcing
- Pricing

**4: Supply Chain Operations Reference (SCOR) model**– This module focuses on the following topics:

- Introducing SCOR model
- Processes: processes that a supply chain must execute in order to meet its primary objective of fulfilling customer orders
- Performance: measurement and assessment of the outcomes of supply chain process execution
- People: standards for managing talent in the supply chain
- Practices: current, structured and repeatable practices that have had a proven and positive impact on supply chain performance.

**5: Outsourcing and global sourcing** – This module focuses on the following topics:

- Outsourcing: ‘make-or-buy’ analysis
- Theoretical perspectives informing the outsourcing decision
- A synthesis of the theoretical approaches to outsourcing
- International and global outsourcing.

**6: Logistics decisions in the supply network** – This module focuses on the following topics:

- Transport decisions in supply chains: modes of transport
- Inventory decisions in the supply chains (Economic order quantity and ABC classification)
- Location decision making
- Reverse logistics
- Logistics service providers.

**7: Sustainable supply chain management** – This module focuses on the following topics:

- Sustainable Development
- Definition of Sustainable Supply Chain Management
- Driving Force Factors
- Performance Measures for Sustainable Supply Chain Management
- Causes for Implementing Sustainable Supply Chain Management

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	<p><b>8: New technologies in supply chain management and logistics</b> – This module focuses on the following topics:</p> <ul style="list-style-type: none"> <li>• Motivation for supply chain technology investments</li> <li>• Supply chain technology areas</li> <li>• Review of some technologies and applications in supply chain:             <ul style="list-style-type: none"> <li>• Cloud computing,</li> <li>• Mobility,</li> <li>• data analytics,</li> <li>• drones,</li> <li>• ...</li> </ul> </li> </ul> <p><b>9: Escape game</b> – This educational escape game is an innovative, collaborative and interactive learning method allowing reflection, manipulation, cooperation to which are added challenges to be met, the collection of clues by researching, solving puzzles and following instructions. This game allows students to go beyond theory by practicing and manipulating the new technologies. The practice includes following technologies:</p> <ul style="list-style-type: none"> <li>• Geographic Information System (GIS)</li> <li>• Internet of Things</li> <li>• Augmented Reality</li> <li>• 3D printing</li> <li>• Virtual Reality</li> <li>• Container optimization</li> <li>• Blockchain</li> </ul> <p>The modules will use the following types of activities and teaching methods:</p> <ul style="list-style-type: none"> <li>• Interactive presentations with reflection points and discussions</li> <li>• Tutorials and exercises (individual and or team)</li> <li>• Case study analysis and discussion</li> <li>• Technology manipulation (Escape game)</li> </ul>	
<b>Teaching Material</b>	<p>Teaching materials - students will receive:</p> <ul style="list-style-type: none"> <li>• The course outlines of each session;</li> <li>• Work-in-class materials; case studies, exercises;</li> <li>• A bibliographical list of references.</li> </ul>	
<b>Evaluation criteria</b>	<p><b>Continuous assessment:</b> 40%</p> <p>Type: work in class: case study discussions and exercises</p>	<p><b>Final assessment:</b> 60%</p> <p>Type: written exam based on the material covered during the class</p>
<b>Recommended readings</b>	<ul style="list-style-type: none"> <li>• Supply Chain Management: Strategy, Planning and Operation. PEARSON. S. Chopra, P. Meindl. (2013)</li> <li>• Purchasing and supply chain management: A sustainability perspective. Routledge. Johnsen, T. E., Howard, M., &amp; Miemczyk, J. (2018).</li> <li>• Sustainable Supply Chain Management. Springer, Cham. Rausch-Phan, M. T., &amp; Siegfried, P. (2022).</li> </ul>	



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- Operations management: processes and supply chains. Pearson Education. Heizer, J. H., & Render, B. (2010).
- Technology in supply chain management and logistics: Current practice and future applications. Elsevier. Pagano, A. M., & Liotine, M. (2019).