



Course Code MBA-708	Course Title Supply Chain Management	Credits (ECTS) 7.5
Department School of Business	Semester Fall, Spring, Summer	Prerequisites MBA-609
Type of Course Elective	Field Management	Language of Instruction English
Level of Course 2 nd Cycle	Year of Study 2 nd	Lecturer(s) Dr Petros Vassilopoulos
Mode of Delivery face-to-face	Work Placement N/A	Co-requisites None

Introduction:

- Logistics and supply chain management is unique and, to some degree, represents a paradox because it is concerned with one of the oldest and also the most newly discovered activities of business. Supply chain system activities – communication, inventory management, warehousing, transportation and facility location – have been performed since the start of commercial activity. It is difficult to visualize any product that could reach a customer without logistical support. Yet it is only over the last few years that firms have started focusing on logistics and supply chain management as a source of competitive advantage. There is a realization that no company can do any better than its logistics system. This becomes even more important given that product life cycles are shrinking and competition is intense. Logistics and supply chain management today represents a great challenge as well as a tremendous opportunity for most firms.

Aim of the Course:

To enable students to develop their understanding of how the theory of Supply Chain Management may be translated into practice.

Objectives of the Course:

- This course provides an introduction to the concepts and methods of supply chain management, which involves the application of frameworks and mathematical modeling tools to supply chain management problems.
- It covers the major issues in supply chain management, including: definition of a supply chain; role of inventory; advanced production-inventory models; supply contracts; bullwhip effect and information sharing; vendor-managed inventories and other distribution strategies; third-party logistics providers; managing product variety; information technology and supply chain management; international issues.

- Specifically, the course will:
 - Introduce you fundamental frameworks for supply chain analysis including the uncertainly matrix and its role in supply chain strategy development.
 - Expose you to the evolving impact of globalization on supply chain management.
 - Show you how to use spreadsheets models to analyze inventory policies and assist in supply chain design and facility location decisions.
 - Explore leading-edge use of information technology in supply chain integration.
- Examines areas that will enable students to acquire knowledge of how modern business makes effective use of their Logistics and Supply Chain Management. Practical application for the Industry.
- Understand how logistical decisions impact on the performance of the firm as well as the entire supply chain.
- Understand the link between supply chain structures and logistical capabilities in a firm or supply chain.
- Help students to understand how and to what extent Logistics and Supply Chain affect the competitiveness of Firms. Good Supply Chain Management can have a tremendous positive impact where as a weak Supply Chains can hurt the performance hence competitiveness of the firm.
- Explore the key issues associated with the design and management of industrial Supply Chains (SC). SC are concerned with the efficient integration of suppliers, factories, warehouses and stores so that products are distributed to customers in the right quantity and at the right time. One of the primary objectives of SC management is to minimize the total supply chain cost subject to various service requirements.
- To learn how to manage material and information outside of the factory walls including aspects of globalization and low-cost country sourcing, product design collaboration, demand planning and forecasting, inventory deployment, distribution system design, channel management, procurement, and logistics.
- Explore order fulfillment strategies and the impact of the Internet on distribution and back-end supply chain processes.
- To introduce the major building blocks major functions, major business process, performance metrics, and major decisions (strategic, tactical and operational) in supply chain networks.
- To provide an insight into the role of Internet Technologies and Electronic Commerce in supply chain operations and discuss technical aspects of key ITEC components in supply chain management.

Learning Outcomes:

At the end of the course students should be able to:

- Assess how Supply Chains Work. Lean-Agile Supply Chains
- Describe and explain fundamentals of Supply Chains.
- Derive and compute optimal policies/variables, performance measures such as costs/profits.
- Demonstrate Knowledge of Supply Chains practices.

- Assess and predict how the new era of competition affects the business and how Logistics affect the firms.
- Properly utilize resources and time and the importance of integration. And Planning resources.
- Evaluate the effects of low V high inventory. What are the options to reduce costs and seek better optimization and the relevant techniques needed.
- Realize why it is important to have a Warehouse and a distribution centre. What are the options in terms of facility/location/size/ equipment/Technology required.
- Define what's the role of Transportation in the Supply Chain.
- Identify the outsourcing benefits and risks.
- Associate how technology and overall Information assist and become an invaluable tool in all areas of the Supply Chain.
- Identify what is the trend and how does E-Supply Chain affect the market.
- Prepare students to obtain or improve the understanding of the elements of purchasing and sourcing of materials of supply chain management.
- Discuss the broad issues of international purchasing and sourcing; utilize technical factors such as exchange rates, channels of distribution, or customs regulations to resolve problems.
- Outline advantages of Supply Chain Management.
- Examine the impact of trade agreements.
- Evaluate the quality considerations (eg ISO9000, industry quality specifications etc).

Course Contents:

1. Logistics, the Supply Chain and competitive strategy
 - Supply Chain Management, a wider concept
 - The changing competitive environment
2. Logistics and customer value
 - The marketing and logistics interface
 - Delivering customer value
 - Impact of out of stock
 - Setting customer service priorities
3. Measuring logistics costs and performance
 - Logistics cost analysis
 - Principles of logistics costing
4. Creating the responsive supply chain
 - Product "push" versus demand "pull"
 - A routemap to responsiveness
5. Strategic lead-time management
 - Time based competition
 - The concept of lead time
 - Logistics pipeline management
6. The synchronous supply chain
 - The role of information in the virtual supply chain
 - Logistics systems dynamics
 - Collaboration in the supply chain
7. Managing the global pipeline

<ul style="list-style-type: none"> - The trend towards globalization in the supply chain - Organizing for global logistics - Thinking global, acting local <p>8. Managing risk in the supply chain</p> <ul style="list-style-type: none"> - Why are supply chains more vulnerable? - Managing supply chain risk <p>9. Overcoming the barriers to supply chain integration</p> <ul style="list-style-type: none"> - Creating the logistics vision - Developing the logistics organization - Benchmarking <p>10. entering the era of network competition</p> <ul style="list-style-type: none"> - Managing the supply chain as a network - Seven major business transformations - The implications for tomorrow's logistics managers

Learning Activities and Teaching Methods:

Lectures, examples and exercises, theory/practice, field trips
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Assessment Methods:

Class attendance, participation/contribution, course work, final exams
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Required Textbooks/Reading:

Authors	Title	Publisher	Year	ISBN
Martin Christopher	Logistics and Supply Chain Management Third Edition	Prentice Hall	2005	0-273-68176-1

Recommended Textbooks/Reading:

Authors	Title	Publisher	Year	ISBN
Donald Waters-Logistics	An Introduction to Supply Chain Management	Palgrave Macmillan	2003	0-333-96369-5
Sunil Chopra – Peter Meindl	Supply Chain Management 2 nd Edition	Pearson		
David Simchi Levi – Philip Kaminsky – Edith Simchi Levi	Designing and Managing the Supply Chain 2 nd Edition	McGraw Hill		0-07-235756-8
Charles C Poirier and Michael J Bauer	E Supply Chain	Berrett-Koehler Publishers, Inc	2001	1-57675-117-1