

Course Outline

Course Code : DOS3701
Course Title : Supply Chain Management
Class Date : From 12/8/2024 To 15/11/2024
Semester : Semester 1, Academic Year 2024/2025
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Overview

Fierce competition in today's global markets has forced firms to invest heavily in improving their supply chain systems. In such systems, items are produced at one or more factories, shipped to warehouses for intermediate storage, and then shipped to retailers. Consequently, to reduce cost and improve service levels, supply chain strategies must account for the interactions of various parties in a supply chain. This, together with the changes in communications and transportation technologies, e.g., mobile communication and overnight delivery, has motivated continuous evolution in supply chains. In recognition of these developments, this course provides a systematic discussion on state-of-the-art models, concepts, and solution methods that are important for the design, control, and management of supply chain systems. Specifically, this course builds on DAO2703 Operations and Technology Management, is companion to DOS3702 Purchasing & Materials Management and DOS3703 Service Operations Management, and prepares for continuation into Field Service Project. The topics discussed in this course include, but are not limited to, inventory control, supply chain coordination, the value of information, supply chain integration, the interaction between product design and supply chain strategies, supply chain risk management, and supply chain competition.

Course Objectives

Our objectives of this course are to allow the students to:

- Develop a systematic framework for analyzing the behavior of large and complex supply chain networks.
- Understand the relationship and motivations of suppliers and distributors to ensure supplies of raw materials and markets for finished goods.
- Discover the state-of-the-art technologies and approaches that reduce production, inventory, and transportation costs.
- Integrate production and inventory control methods in multi-plant distribution strategies.

Assessment

Assessment Components	Weightage
Class Participation	10%
Individual Homework	50%
Group Homework/Project	40%

Schedule and Outline¹

Lesson/ Week	Date	Session (lesson summary or outline / learning objectives / preparation / cases & assignments / follow-up readings & resources)
1	15/08/2024	Introduction to Supply Chain Management
2	22/08/2024	Inventory Management and Risk Pooling
3	29/08/2024	Newsvendor Model and Hunger Chain Game
4	05/09/2024	Supply Chain Coordination
5	12/09/2024	Beer Game
6	19/09/2024	Value of Information
Term Break		
7	03/10/2024	Supply Chain Integration
8	10/10/2024	Global Supply Chain
9	17/10/2024	Coordinated Product and Supply Chain Design
10	24/10/2024	Supply Chain Competition - Part I
11	31/10/2024	Supply Chain Competition - Part II
12	07/11/2024	Group Project Presentation
13	14/11/2024	Group Project Presentation

General Guide & Reading (e.g. Case preparation guide, project report guide, main textbook & supplementary materials, etc)

- Main Text
 - *Designing and Managing the Supply Chain: Concepts Strategies and Case Studies*, Simchi-Levi, Kaminsky and Simchi-Levi, 2008, Third Edition, Irwin/McGraw-Hill.
- Reference Text
 - *Supply Chain Management: Strategy, Planning, and Operation*, Sunil Chopra and Peter Meindl, 2016, 6th Edition (Global Edition), Pearson.

Academic Honesty & Plagiarism

Academic integrity and honesty is essential for the pursuit and acquisition of knowledge. The University and School expect every student to uphold academic integrity & honesty at all times. Academic dishonesty is any misrepresentation with the intent to deceive, or failure to acknowledge the source, or falsification of information, or inaccuracy of statements, or cheating at examinations/tests, or inappropriate use of resources.

Plagiarism is 'the practice of taking someone else's work or ideas and passing them off as one's own' (The New Oxford Dictionary of English). The University and School will not condone plagiarism. Students should adopt this rule - You have the obligation to make clear to the assessor which is your own work, and which is the work of others. Otherwise, your assessor is entitled to assume that everything being presented for assessment is being presented as entirely your own work. This is a minimum standard. In case of any doubts, you should consult your instructor.

Additional guidance is available at:

- [Administrative Policies](#)

¹Subject to change

- <http://www.nus.edu.sg/registrar/administrative-policies-procedures/acceptance-record#NUSCodeofStudentConduct>
- <http://nus.edu.sg/osa/resources/code-of-student-conduct>