DOS3701
Supply Chain Management
Semester I, 2023/2024

Course Outline

Lecturer : Lucy Gongtao Chen
Associate Professor
Department of Analytics and Operations
Office: BIZ 1 Mochtar Riady Building, #08-60
Email: bizcg@nus.edu.sg
Phone Number: 65163013

Session : Semester I, 2023/2024

Course Objectives

This course builds on DSC2006/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. 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 as well as supply lead time.
- Integrate production and inventory control methods in multi-plant distribution strategies.

Prerequisites

Knowledge of basic calculus, elementary probability and the Normal Distribution.

Syllabus

Fierce competition in today's global markets has forced manufacturing enterprises to invest heavily in logistics 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, logistics strategies must account for the interactions of the various levels in the supply chain. This, together with the changes in communications and transportation technologies, e.g., mobile communication and overnight

delivery, has motivated continuous evolution in logistics systems. In recognition of these developments, the program offers a course on the design and management of the supply chain. In this course, we review state of the art planning models and practical tools for inventory control, distribution management, and multi-plant coordination.

In particular, we address issues such as:

- Adequate safety stock levels and the risk pooling concept.
- Supply chain coordination through contracts
- Cost effective distribution strategies.
- Value of information sharing.
- Supply chain risk management
- Supply chain integration

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, Sixth Edition (Global Edition), Pearson.

Evaluation

Class Participation	10%
Individual Homework/Test	50%
Group Homework/Project	40%

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:
http://www.nus.edu.sg/registrar/adminpolicy/acceptance.html#NUSCodeofStudentConduct