

Module Outline

Module Code : DOS3712
Module Title : Physical Distribution Management
Class Date : From 9/1/2023 To 14/4/2023
Semester : Semester 2, Academic Year 2022/23
Faculty : Dr GOH Shao Hung
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Overview

This course helps students to appreciate the strategic importance of good distribution operations planning in the context of supply chain management and economic development in Asia. A strategic framework of physical distribution system design is presented to help build critical analytical skills for decision making in the management of physical distribution and transportation of goods, from the perspectives of both the user and provider of third-party logistics (3PL) services. The operating characteristics of various transport modes in international and domestic freight will be discussed. Specific considerations and requirements for distribution in different industry sectors (e.g. e-commerce, service/reverse logistics and third-party logistics) will also be introduced.

The course covers the application of operations research and heuristic techniques to physical distribution system design (e.g. facility location and mode selection) and transportation management problems (e.g. vehicle routing/scheduling and fleet planning). Where available, Asian cases will be used to highlight and educate students on unique business operations in this region.

Module Objectives

The objective of this course is to introduce and integrate knowledge in this area with applications in logistics and supply chain management. It exposes students to the work environment and the diverse challenges faced by business analysts, logistics planners and supply chain managers. The teaching method will be a combination of lectures, problem-based learning and class discussions on assigned reading topics and case analysis. Active class participation by students is expected.

Assessment

Assessment Components	Weightage
Class Tests (Individual)	50%
Group Assignments (Team)	10%
Group Presentation (Team)	25%
Class Participation (Individual)	15%

Schedule and Outline

Lesson/ Week	Date	Session
1	9-Jan	Role of Physical Distribution in Trade and Supply Chains
2	16-Jan	Distribution and Replenishment Strategies
3	23-Jan	Material Handling: Planning, Processes and Principles
4	30-Jan	Network Design and Facility Location
5	6-Feb	Logistics Facility Sizing and Design
6	13-Feb	Logistics Facility Automation and Energy Efficiency
7	27-Feb	Overview of Freight Transport
8	6-Mar	Air and Ocean Freight Distribution
9	13-Mar	Road Freight Distribution
10	20-Mar	Vehicle and Intermodal Routing
11	27-Mar	E-commerce Logistics and Last-Mile Distribution
12	3-Apr	Service and Reverse Logistics
13	10-Apr	Third-Party Logistics

General Guide & Reading

- Edward H. Frazelle. World-Class Warehousing and Material Handling, 2nd Edition, McGraw-Hill Education, 2016
- John J. Bartholdi III and Steven T. Hackman. Warehouse and Distribution Science, www.warehouse-science.com, 2019
- Robert A. Novack, Brian Gibson, Yoshinori Suzuki and John J. Coyle. Transportation: A Global Supply Chain Perspective, 9th Edition (International or Asia), Cengage, 2019

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.

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