

Course Outline

Course Code : DOS3714
Course Title : Sustainable Operations Management
Class Date : 14 Aug 2023 – 17 Nov 2023
Semester : Semester 1, Academic Year 2023/2024
Faculty : Dr **Chen** Kim Heng
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Overview

Focus on reducing environmental impact not only allowed companies to comply with increased regulations but also to reduce their costs, to improve the quality of their products and to enhance the reputation of their brands. The objective of this course is to study how a company can use its operations to improve environmental performance and contribute to business success at the same time. Students will learn how citizens, governments, customers and employees are creating pressures for more sustainable development and how operations managers are responding to these pressures with waste reduction, pollution prevention, and product stewardship. Students will also study specific tools and methods such as environmental management systems (EMS), life cycle analysis (LCA), green buildings, green purchasing, design-for-environment (DfE), recycling, remanufacturing, servitization, and industrial symbiosis. Through the course students will also learn how to craft a successful strategy for sustainable operations by incorporating it into a company's business strategy, improvement planning, product and process design, supply management, risk management and both internal and external reporting systems.

Course Objectives

In this course students will internalize concepts and practice skills that will enable them to:

- Develop strategies for sustainable operations
- Define and assist in operations improvement projects for waste reduction, pollution prevention or product stewardship
- Assist in launching sustainable operations programs in a wide range of industries and organization

Assessment

Assessment Components	Weightage
Class Participation	15%
Assignments	30%
Project Presentation	5%
Project Report	20%
End-of-semester Assessment	20%
Peer Evaluation	10%

Course Topics

1. Introduction to Sustainability
2. Sustainability and Measurements
3. Sustainability and New Product Design
4. Sustainability and Procurement
5. Sustainability and Production
6. Sustainability and Procurement
7. Sustainability and Logistics, Physical Distribution and Packaging
8. Reverse Logistics Management and Closed-Loop Supply Chain
9. Special Topics

A detailed Course Schedule and Contents (including Readings) will be made available closer to start of the Semester. Tutorial sheets containing questions for discussion and problems for practice will be made available for each tutorial.

General Guide & Reading

Cases and reading materials will be provided.

Prerequisite

DAO2703 (Operations and Technology Management)

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