

National University of Singapore  
Department of Analytics & Operations

**Module Code:**DOS3714

**Module Title:** Sustainable Operations Management

**Duration:** 11 Jan 2021 – 16 Apr 2021

**Semester:** Semester 2, Academic Year 2020/2021

**Time/Venue:** Thursday 15:00 – 18:00

**Instructor:** Chen Kim Heng, Ph.D.

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**Module Description:**

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, servicization, 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.

**Learning 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

**Prerequisites:**

DAO2703/DSC2006 – Operations and Technology Management

**Readings:**

Cases and materials related to sustainability will be provided.

**Assessment:**

Class Participation (Individual)	20%
Assignments (Group)	30%
Group Project (Group)	25%
Peer Evaluation (Individual)	10%
End-of-Term Assessment (Individual)	15%