

NATIONAL UNIVERSITY OF SINGAPORE
NUS Business School
Department of Decision Sciences

DSC 3226 SUSTAINABLE OPERATIONS MANAGEMENT (SOM)

Senior Lecturer: Dr. Mei Qi

Session: Semester I, 2015/2016

COURSE DESCRIPTION

Companies have started to reap the benefits from building sustainability into their operations. A 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 organizations

PREREQUISITES

DSC2006 - Operations Management

REQUIRED READINGS

- Students can access HBS/Internet to download/purchase all required cases/articles.

INSTRUCTIONAL METHODS

This course combines case presentations and discussions, lectures and tutorial like dialogues, and student team projects and other assignments. Theory and conceptual thinking form the backbone of the course but there will also be a strong emphasis on experiential and action-based learning through case study preparations and the group project in which actual results are expected. Groups will consist of 3 - 4 students and will be responsible for an environmental strategy audit or an environmental performance improvement project.