

NATIONAL UNIVERSITY OF SINGAPORE
NUS BUSINESS SCHOOL
Department of Analytics & Operations

DSC2006 OPERATIONS MANAGEMENT

Lecturer : Dr Mei QI (Lecturer and Module Coordinator)
Prof Fernando M.S.M.S. Oliveira (Co-Lecturer)

Session : Semester II, 2017/2018

Course Description

All organizations have an operations function that is primarily responsible for the production and delivery of their products and services. Therefore, the management of this operations function (i.e. **Operations Management**) not only affects final product quality but also impacts customer service and the overall competitiveness of the organization. The primary objectives of module DSC2006 Operations Management are to provide students with an introduction to, and an understanding of, the substantive knowledge which has developed over the years in the field of **Operations Management (OM)**, and to highlight the relevance and strategic significance of the operations function in enterprises.

This module will build around the traditional foundational topics of **OM**, we will nevertheless attempt to highlight some of the more current issues in the field. Students will be exposed to topics such as product (or service) and process design, quality management, capacity planning and inventory management as well as supply chain management in both manufacturing and service organizations.

Main Module Objectives

1. Introduce key OM concepts such as process and capacity, process flow units and flow time, inventory, quality and control
2. Introduce a few important OM theories such as Little's law, Lean 6 σ quality, and process improvement
3. Introduce some OM tools such as project management, transportation model, inventory management, and sustainable supply chain management
4. Raise the awareness and interests in the function of Operations

Prerequisite

Although no prerequisite is stated, this module assumes prior knowledge of basic algebra, calculus, probability and statistics (i.e. expected value, variance, probability distributions such as Normal and Poisson). Students should ensure that they are adequately prepared analytically for this module.

Readings and textbooks:

1. HBS Core Readings (<http://cb.hbsp.harvard.edu/cbmp/access/66072205>)
2. Operations Management: An Asian Perspective / Stevenson and Sum/2e, McGraw Hill

Assessment Methods

- 60%: Final Exam (in MCQ format)
- 40%: Tutorial Participation and Assignments
 - i. Tutorial participation depends on your presence in the classroom during assigned tutorial time, your perceived preparation, and the contribution you make to the learning experience of others.
 - ii. Tutorial participation includes in-class questions to the instructor, insights and/or comments regarding class content, answers to the instructor's in-class questions, and reactions to other students' in-class contributions.
 - iii. The quality of in-class participation will critically depend on your preparation: preparing answers to the tutorial discussion questions.
 - iv. Cold-calling (direct questions by the instructor to an individual student during a class session) will be used to check class preparation. Cold-call questions can relate to tutorial discussion questions but can also be questions that test whether you have read and understood the assigned readings.
 - v. Please sit in the same seats every tutorial class meeting throughout the semester. Please put your name cards in front of you.

Module Schedule

Week	Lecture Topic
1	Introduce OM as process management
2	Process analysis
3	Process selection and design
4	Managing process waiting time
5	Managing quality with process control
6	Managing quality
7	Project Management
8	Location and Transportation Planning
9	Inventory Management
10	Capacity Planning
11	Lean Management Systems
12	Sustainable Supply Chain Management
13	Revisions