

**DSC2006 OPERATIONS MANAGEMENT**

**LECTURER** : DR. MEI QI

**Session** : Semester I, 2015/2016

**Course Description**

All organisations have an operations function that is primarily responsible for the production and delivery of their products and services. The management of operations function (Operations Management) therefore not only affects final product quality but also impacts customer service and the overall competitiveness of the organisation. The primary objectives of module DSC2006 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 and process design, quality management, capacity planning and inventory management as well as supply chain management in both manufacturing and service organisations.

**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 for this module.

**Textbooks**

R1: HBS materials

R2: Matching Supply with Demand, 3<sup>rd</sup> edition, McGraw-Hill, by Cachon and Terwiesch

**Assessment Methods**

- Final Exam 60%
- Midterm Exam (in MCQ format) 30%
- Tutorial Participation 10%

**Module Schedule**

<b>Week</b>	<b>Lecture Topic</b>
1	Introduction to Operations Management (OM) and module overview
2	Product and process design, and capacity planning
3	Process Selection, facility layout, and line balancing
4	Manage Queue and Waiting
5	Process Control and Capability
6	Quality Management (QM)
7	Midterm Review
8	Inventory Management I: ABC Analysis and EOQ
9	Inventory Management II: Quantity Discount and EPQ
10	Newsboy and its applications
11	Aggregate Planning and MRP
12	Lean (JIT) and Supply Chain Management
13	Sustainable OM and Operations Strategy