



International Management Institute

PROGRAMME NAME: Post Graduate Diploma in Management (PGDM)

OM 502: Operations Management – I

CREDIT: Full (3 credits)

SESSION DURATION: 90 Minutes

TERM: II

YEAR: 2017-2018

BATCH:

FACULTY: Dr. Ranjit Roy Ghatak

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Office hours: 9: 30 a.m. - 5.30 p.m.

Course Introduction: Operations Management helps you to understand the role of OM in a firm and to develop abilities to structure and solve operations related problems. The course will empower you with skills to address important aspects of business operations including capacity, productivity, quality, and supply chain. You will understand how operations in an organization are configured and factors that can potentially drive the complexity of managing such operations. We will also introduce concepts like estimating capacity, identifying bottlenecks, and de-bottlenecking.

Course Objectives:

- a) To make the students aware of the role of Operations Management in business organizations.
- b) To develop an understanding of the applications of Operations Management concepts in strategic decision making
- c) To develop analytic capabilities in the students by equipping them with concepts, tools and techniques required in managing operations.

At the end of the course the students should be able to(Learning outcome):

- 1. Understand the importance of Operations Management in organizations
- 2. Relate Operations Management with strategic decision making in a firm
- 3. Apply theoretical concepts to real life situations

Pre-requisites for the course

Basic knowledge of mathematics

Pedagogy

Pedagogy would be a combination of lectures, case studies and problem solving. Lecture classes shall be discussion based and students are expected to read the relevant chapters from the book and any other reading material provided before they come to the class. Case studies will be discussed which will help in understanding Operations Management in actual work situations.. The course will be taught as per the session plan given in this document. *Students are expected to participate in the class discussions.*

Evaluation criteria

End term exam	: 30%
Mid-term exam	: 30%
Quiz	: 10%
Project	: 20%
Class participation	: 10%
TOTAL	<hr/> : 100%

Project

As part of the evaluation, students are required to do a project which shall involve study of real life application of one or more aspects of Operations Management covered during the course. This study can either be done for a services or a manufacturing organization. *Preferably, students must visit the organization and collect first hand information.* If this is not possible, desk research may be done. Students must be able to do a critical analysis of the particular aspect(s) of Operations Management being studied. At the end of the term, students are required to make a presentation on the project. Each member of the group is expected to speak in the presentation. Presentations shall be evaluated for: *content, presentation style and communication, and response to questions.* Peer evaluation shall be done and all members of the group may not get the same grade.

Readings

Chase R B, Shankar Ravi, Aquilano N J and Jacobs F R, “Operations and Supply Management”, Tata McGraw Hill Education Limited, 12th edition.

Heizer, Jay; Render, Barry and Rajashekhar, Jagdeesh, ‘Operations Management’, Pearson publication, 9th Edition.

Session Plan

Topic	Session No.	Reading	Mapped Learning outcome
Introduction to Operations Management <ul style="list-style-type: none"> • Definition and scope • Operations Management as a system • Product vs. services systems • Components of Operations strategy • Competitive priorities 	1,2	Chapter 1 and 2 Chase R B, Shankar Ravi, Aquilano N J and Jacobs F R, “Operations and Supply Management”,	1, 2
<ul style="list-style-type: none"> • Case study discussion 	3	<ul style="list-style-type: none"> • <i>Case: Wal-Mart China : Sustainable Operations Strategy</i> 	2, 3
Product design and development <ul style="list-style-type: none"> • Product life cycle • Product development process • Concurrent engineering • Reliability • Designing for Manufacturability • Value engineering 	4	Chapter 4 Chase R B, Shankar Ravi, Aquilano N J and Jacobs F R, “Operations and Supply Management”,	2, 3
<ul style="list-style-type: none"> • Case study discussion 	5	<ul style="list-style-type: none"> • <i>Case : BMW AG Digital Car Project (A)</i> 	2, 3
Process management <ul style="list-style-type: none"> • Importance of processes • Generic Processes and their choice • Process analysis and improvement 	6	Chapter 7 and 6 Chase R B, Shankar Ravi, Aquilano N J and Jacobs F R, “Operations and Supply Management”,	2, 3
<ul style="list-style-type: none"> • Case study discussion 	7-8	<ul style="list-style-type: none"> • <i>Case : McDonalds Corporation</i> • <i>Case: Burger King Corporation</i> 	2, 3

Topic	Session No.	Reading	Mapped Learning outcome
Facility location <ul style="list-style-type: none"> • Factors affecting location decisions • Techniques for deciding on facility location: Weighted Score Model, Load distance method, Center of gravity method, Break even analysis 	9	Chapter 11 Chase R B, Shankar Ravi, Aquilano N J and Jacobs F R, “Operations and Supply Management”,	2, 3
Service Operations Management	10	Guest Lecture(Tentative)	2
Facility layout <ul style="list-style-type: none"> • Types of facility layouts: Process layout, Product layout, Cellular layout, Project layout • Design of layouts 	11	Chapter 7A Chase R B, Shankar Ravi, Aquilano N J and Jacobs F R, “Operations and Supply Management”, <i>Problem 10 from pp. 292-293 of Textbook</i>	2, 3
Facility layout – Product Layout <ul style="list-style-type: none"> • Assembly Line Balancing 	12	Chapter 7A Chase R B, Shankar Ravi, Aquilano N J and Jacobs F R, “Operations and Supply Management”, <ul style="list-style-type: none"> • Case: <i>Assembly Line Balancing: Helgeson-Bernie Rank Positional Weight (RPW) Technique</i> 	2
Capacity Planning <ul style="list-style-type: none"> • Importance of capacity decisions • Types of capacities • Measuring capacity • Economies of scale and Learning Curve • Determining capacity requirements 	13	Chapter 5 Chase R B, Shankar Ravi, Aquilano N J and Jacobs F R, “Operations and Supply Management”,	3
Capacity Planning (Cont’d)	14	<ul style="list-style-type: none"> • Case : <i>Scharffen Berger Chocolate Maker</i> 	3

Topic	Session No.	Reading	Mapped Learning outcome
Forecasting for Operations <ul style="list-style-type: none"> • Types of Forecasting • Qualitative and Quantitative Forecasting methods • Time Series Analysis • Exponential smoothing 	15-16	Chapter 15 Chase R B, Shankar Ravi, Aquilano N J and Jacobs F R, “Operations and Supply Management”,	2, 3
Project Management <ul style="list-style-type: none"> • What is Project Management • Work Breakdown Structure • Project S Curves • Network Planning Models • Time Analysis of a project 	17-18	Chapter 3 Chase R B, Shankar Ravi, Aquilano N J and Jacobs F R, “Operations and Supply Management”,	2, 3
Project presentations	19, 20		2, 3