

#### Calcutta Business School

## Post Graduate Diploma in Management Programme (PGDM)

Course Name: Operations Management (OM)

**Subject Code:** DM 21302 **Term-** I (PGDM 2020-22)

**Academic Year:** 2020 – 21

Course Instructors: Prof. Sanjib Biswas

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#### **Course Overview:**

Operations Management (OM) is one of the key functional areas of any organization irrespective of its nature. OM is concerned with managing a series of processes and activities which transform inputs (e.g. materials, labors, energy, knowledge etc.) into outputs (e.g. products and services). OM is responsible for dealing with the questions like What to produce? How much to produce? Where to produce? (e.g. facility) What processes should be used? How to design and manage those processes? (e.g. Job design, process flow, sequence, technology, etc.) What are the resources required and how much? (e.g. labor, materials/inventory, energy, etc.) How to plan and manage the resources? (e.g.sales and operation planning, aggregate planning, resource planning, inventory management, etc.) How to ensure quality and continuously improve? How to design and manage project works? How to deliver the products and/ services to the customers? Organizations can leverage efficient and effective OM for gaining competitive advantages in terms of the abilities to respond to the customers' requirements quickly at the lowest possible cost and with the highest possible quality. As competition is getting intensified at

open and global marketplace day by day, it becomes imperative for the organizations to run their operations efficiently and to exploit their resources productively.

In a nutshell, every aspect of business affects or gets affected by OM. Irrespective of the nature of job like shop floor/production manager, product analyst, process analyst, product manager, market researcher, supply chain manager, market analyst, logistics manager, stock market analyst, budget analyst, investment banker, MIS designer, etc. one has to deal with all or some of the issues mentioned above and needs to take appropriate timely decisions and formulate strategies for achieving business results and competitive growth. Moreover, for the students who aspire to become entrepreneurs, this course essentially enables them to understand how an organization executes the processes to provide required products and/services to the customers.

Essentially, this course shall focus on concepts, procedures, and technologies used in designing and managing production and operational processes and deploying resources in both manufacturing and service-oriented organizations, with emphasis on informed decision making and the use of analytical tools to create and deliver products and/or services for meeting effectively customer requirements and expectations.

## **Course Objectives (CO):**

- 1. To provide an introduction to key principles, concepts and practices used by organizations in the management of their production and operations.
- 2. To demonstrate the application of production and operations management mechanisms within the business environments.
- 3. To encourage students to reflect on the appropriateness and effectiveness of managing operations within their working environment.
- 4. To enable students to learn different analytical tools and methods used in the area of production and operations management.

# Learning Outcomes (LO):

After completing this course, the students shall be able to

- 1. Understand the main functions and various concepts and practices pertaining to the area of Production and Operations Management.
- 2. Relate Production and Operations Management function with other functional areas of business and understand the importance of production and operation strategy vis-à-vis business strategy.

3. Identify, plan and manage production and operations activities of a company, such as product and porcess design, total quality, production planning, inventory management, location and capacity planning and layout planning etc.

## **Pedagogy:**

The course relies on a combination of lectures, readings, class participation, quiz, case discussions, project work and an end-term examination. Each session will have duration of 1.5 hours. The sessions shall include review of the previous learning, lecture on the topics and interactive discussion and analysis of the cases/articles pertaining to the respective topics. Few sessions shall be taken by industry practitioners. This will be an interactive course whereby students are expected to participate in class discussions and come up with useful analysis and solutions to problems related to the subject matter. As is appropriate at Masters' level, students will also be expected to read beyond texts assigned, and to identify on their own further sources of information for complementing their studies. Informal group discussions amongst participants are recommended. Experts and practitioners may be invited to participate in the course as guest lecturers.

#### **Evaluation Scheme:**

Emphasis will be given on continuous evaluation of the students. The overall grade in the course will be determined by your performance on the following components:

Sl. No.	Particulars	Percentage		
1	End – Term Examination	40		
2	Quiz (Individual)	10		
3	Project work & Presentations (Group)	20		
4	Case Analysis (Group)	20		
5	Class Participation & Attendance (Individual)	10		
	100			

## Text Book, Reference Books & Journals:

#### Text Books:

1. Operations Management, Roberta S. Russell & Bernard W. Taylor III, J O H N W I L E Y & S O N S, I N C.

#### **Reference Books:**

- 1. Operations Management, William J Stevenson, 9th Edition, Tata McGraw Hill Education Pvt. Ltd.
- 2. Operations Management for Competitive Advantage, Richard B Chase, F Robert Jacobs, Nicholas J Aquilano and Nitin K Agarwal, Tata McGraw Hill Education Pvt. Ltd.
- 3. Operations Management: Processes and Value Chains, Krajewski, Ritzman and Malhotra, 8th Edition, Pearson Education.
- 4. Operations Management, Heizer and Render, 11th Edition, Pearson Education
- 5. Operations Management, Nigel Slack, Stuart Chambers & Robert Johnston, Pearson

#### Cases:

- 1. *Apoorva: A Facility Location Dilemma*, Debmallya Chatterjee and Amol S. Dhaigude; Ivey Publishing, Case ID:W17644, 2018.
- 2. Kamaths Ourtimes Ice Creams: Eliminating the Bottleneck Effect; Amol S. Dhaigude, Debmallya Chatterjee and Saptarshi Chakrabarti; Ivey Publishing, Case ID: W18406, 2018.
- 3. Agarwal Automobiles: Fuel Station Forecasting and Inventory Management; Saurabh Chandra, Aditya Agarwal and Sanjay Choudhari; Ivey Publishing, Case ID: W17638, 2018.
- 4. *Butterfly Edufields: Different shades of Capacity;* K C Chejarla, S. Bhattacharya and S. Modukuri, Ivey Publishing, Case ID: W19067, 2019.
- 5. Arvind Lifestyle Brands Limited: From Concept to Shelf. Anshuman Tripathy, Anupam Sharma and Srividhya Ganesan; IIM Bangalore Publishing; Case ID: IMB 699, 2018.
- 6. *SMRT Trains: Managing Operations and Service Quality*, S. Viswanathan & D.G. Allampalli, The Asian Business Case Centre Publication, Case ID: ABCC-2014-001, 2014.

Apart from the above case studies, students will be given some caselets during classes for discussions on concerned topics.

# **Session Plan:**

Session	Details	L	T	P	Hrs.
1-2	Introduction to Operations Management	1			4.5
3	Facility Location Selection	1			1.5
4	Product & Service Design	1			1.5
5-6	Demand Planning: Forecasting	1	1	1	3
7	Capacity Planning	1		1	1.5
8-9	Aggregate Planning; MPS; MRP; ERP	1	1	1	3
10-11	Inventory Management	1	1	1	3
12	Understanding Supply Chain	1			1.5
13	Case Analysis & Presentation - I			1	1.5
14-15	Process & Layout and work Planning & Design	1	1	1	3
16	Scheduling	1	1	1	1.5
17	Quality Planning & Management	1		1	1.5
18	Understanding Project Management	1			1.5
19	Case Analysis & Presentation - II			<b>V</b>	1.5
20	Quiz & Project Presentation			<b>V</b>	1.5

Total: 30 Hrs.

# Updated by:

Prof. Sanjib Biswas

Date: 11.08.2020