



**International Management Institute**  
**OM502: Operations Management – II**  
**January-March (2020-21)**  
**PGDM- (III Trimester)**

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**Course Introduction:**

Learn to analyze and improve business processes in services or in manufacturing by learning how to increase productivity and deliver higher quality standards. Key concepts include process analysis, bottlenecks, flows rates, and inventory levels, and more. After successfully completing this course, you can apply these skills to a real-world business challenge.

**Learning Outcome:**

- LO1.To develop competence and skill sets in using OM concepts in a variety of contexts.
- LO2 To display familiarity with OM concepts and how OM concepts can be used to improve the competitive position of the firm.
- LO3. To formulate appropriate Operations Management strategies.
- LO4. To develop analytical tools to solve OM problems.

**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. Numerical problems are essential to Operations Management and some tutorial classes shall be held so that students get practice in solving such problems. 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**

<b>Evaluation Component</b>	<b>Learning Outcome</b>	<b>Weightage</b>
End-Term Exam	LO1, LO2, LO3, LO4	40%
Assignment/Presentation	LO1, LO2, LO3, LO4	20%
Quiz-2 Nos	LO1, LO2	30%
Class participation	LO1, LO2	10%

## Textbook

Chase R. B., Shankar R., Aquilano N. J., and Jacobs F. R., “Operations and Supply Management”, Tata McGraw Hill Education Limited, 14<sup>th</sup> edition.

## Reference books

Heizer, J., Render, B., and Rajashekhar, J. ‘Operations Management’, Pearson publication, 11th Edition.

## Readings

Relevant chapters from text book

## Session Plan

Topic	Session No.	Learning Outcome	Readings
Inventory Management <ul style="list-style-type: none"><li>• Importance of holding stocks</li><li>• Costs associated with inventory</li><li>• EOQ model</li><li>• EBQ Model</li><li>• EOQ model with quantity discounts</li><li>• Safety Stock – Function and general rules</li><li>• Periodic review model</li><li>• ABC, VED and FSN analysis</li></ul>	1,2,3,4	LO1, LO2, LO3, LO4	*Chapter 20 of text book
Scheduling <ul style="list-style-type: none"><li>• Scheduling high volume, medium volume and low volume systems</li><li>• Priority rules for Job Shop scheduling</li><li>• Job Assignment using integer programming</li><li>• Scheduling personnel (using LP)</li><li>• Creating Cyclic schedules</li></ul>	5,6,7,8	LO1, LO3, LO4	*Chapter 22,23 of text book
Aggregate planning <ul style="list-style-type: none"><li>• Aggregate Planning Strategies- Capacity Options, Demand Options, Mixing Options to develop a plan</li><li>• Methods of Aggregate Planning</li></ul>	9,10,11	LO1, LO2, LO3, LO4	*Chapter 19 of text book

<b>Topic</b>	<b>Session No.</b>	<b>Learning Outcome</b>	<b>Readings</b>
Material Requirements Planning <ul style="list-style-type: none"> <li>• Dependent vs Independent Demand inventories</li> <li>• MRP Computations</li> <li>• Lot sizing rules</li> <li>• MRP-I, MRP-II</li> </ul>	12,13,14	LO3, LO4	* Chapter 21 of text book
Supply Chain Management <ul style="list-style-type: none"> <li>• Introduction to Supply Chain Management</li> <li>• Supply Chain Strategies</li> <li>• Responsive and Efficient supply chains</li> </ul>	15	LO1, LO2, LO3	*Chapter 14,16 of text book
Service Processes <ul style="list-style-type: none"> <li>• Service Triangle</li> <li>• Service-System Design Matrix</li> <li>• Customer Induced Variabilities</li> <li>• Introduction to waiting line models</li> </ul>	16.17	LO2, LO3, LO4	*Chapter 9 and 10
Managing for Quality <ul style="list-style-type: none"> <li>• Definitions of quality</li> <li>• Total Quality Management</li> <li>• Process Capability and introduction to Six Sigma</li> <li>• Statistical Quality Control</li> </ul>	18,19,20	LO1, LO2, LO3, LO4	*Chapters 12 and 13 of text book
Presentation	21, 22		