



**International Management Institute**  
**OM 502: Operations Management – II**  
**December-March (2019-20)**  
**PGDM-III**

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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:**

1. To develop competence and skill sets in using OM concepts in a variety of contexts.
2. To display familiarity with OM concepts and how OM concepts can be used to improve the competitive position of the firm.
3. To formulate appropriate Operations Management strategies.
4. 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%              |
| Mid-Term Exam               | LO1,LO2,LO3,LO4         | 30%              |
| Quiz-2 Nos                  | LO1,LO2                 | 20%              |
| Class participation         | LO1,LO2                 | 10%              |

## Text book

Chase R B, Shankar Ravi, 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, 11 th Edition.

## Readings

Relevant chapters from text book

## Session Plan

| Topic   | Session No. | Learning Outcome   | Reading                     |
|---|-------------|--------------------|-----------------------------|
| 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>• Reorder point model</li><li>• Periodic review model</li><li>• Single period model</li><li>• ABC, VED and FSN analysis</li></ul> | 1,2,3,4,5   | 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>• Johnson’s Rule</li><li>• Scheduling personnel</li></ul>  | 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    |
| 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   |

| <b>Topic</b>   | <b>Session No.</b> | <b>Learning Outcome</b> | <b>Reading</b>                   |
|--|--------------------|-------------------------|----------------------------------|
| Supply Chain Management <ul style="list-style-type: none"> <li>• Introduction to Supply Chain Management</li> <li>• Global Supply Chain Issues</li> <li>• Supply Chain Strategies</li> </ul> | 15,16              | LO1, LO2, LO3           | *Chapter 14,16 of text book      |
| Just in Time (JIT) Manufacturing <ul style="list-style-type: none"> <li>• The seven wastes</li> <li>• Features of JIT</li> </ul>   | 17                 | LO1, LO2, LO3           | *Chapter 14 of text book         |
| Managing for Quality <ul style="list-style-type: none"> <li>• Definitions of quality</li> <li>• Total Quality Management</li> <li>• Statistical Quality Control</li> </ul>                   | 18,19,20           | LO1, LO2, LO3, LO4      | *Chapters 12 and 13 of text book |