

**Course Title** : **Introduction to Operations Management**  
**Semester** : **I**  
**Credits** : **2**  
**Contact Hours** : **20 Hrs**

<b>Course Outcomes</b>	<b>Description</b>	<b>Cognition</b>	<b>Hours</b>	<b>Evaluation Tool</b>
<b>CO1</b>	Explain the concepts, principles, practices & challenges of operations management for managing business operations.	<b>L2: Understand</b>	<b>5</b>	<u>Internal-</u> Test, Assignment
<b>CO2</b>	Apply various framework, to New product design & development for value proposition.	<b>L3: Apply</b>	<b>2</b>	<u>Internal-</u> Test, Case Study, Exercise
<b>CO3</b>	Apply appropriate methods related to the selection of facility location, layout	<b>L3: Apply</b>	<b>5</b>	<u>Internal-</u> Test, Case Study <u>End Term-</u> <u>Theory</u>
<b>CO4</b>	Analyse the various inventory management tools, capacity planning for better productivity, cost effectiveness and efficiency of the business	<b>L4: Analyze</b>	<b>6</b>	<u>Internal-</u> Test, Case Study, Numerical
<b>CO5</b>	Evaluate the continuous improvement tools for better quality and decision making.	<b>L5: Evaluate</b>	<b>2</b>	<u>Internal-</u> Test, Case Study

### Mapping with CO-PO

Scale 1- low alignment, 2- Moderate alignment, 3 – high alignment, - – No alignment

<b>COs / Pos</b>	<b>PO 1</b>	<b>PO 2</b>	<b>PO 3</b>	<b>PO 4</b>	<b>PO 5</b>
CO1	3	1		1	1
CO2	3	3		2	2
CO3	3	3		2	3
CO4	3	3		2	3
CO5	3	3		2	3
<b>CO</b>	<b>3</b>	<b>3</b>		<b>2</b>	<b>2</b>

## Session Plan

Sr. No.	Hours	Syllabus- Course Contents	Course Outcome (CO)	Cognition	Evaluation Tools
1	3	<b>Introduction to Operations Management</b> Operations management of Manufacturing and service sectors, Transformation process, Goods and Services, Types of Production Systems Interface of Operations with other management areas	CO1-Explain the concepts, principles, practices & challenges of operations management for efficiently managing business operations.	L2: Understand	<u>Internal-</u> Test, Assignment
2	1	Role of Operations, in Various Sectors	CO1- Explain the concepts, principles, practices & challenges of operations management for efficiently managing business operations.	L2: Understand	<u>Internal-</u> Test, Assignment
3	1	<b>Future of Operations-</b> Circular Economy, Industry 4.0, Product Design	CO1- Explain the concepts, principles, practices & challenges of operations management for efficiently managing business operations.	L2: Understand	<u>Internal-</u> Test, Assignment
4	2	<b>New Product/Service Development</b>  New product development cycle, reasons for failure of new products, Outsourcing and Offshoring of new product development - over-view	CO2- Apply the various framework, to New product design & development, for continuous successes of the business	L3: Apply	<u>Internal-</u> Test, Case Study, Exercise

5	2.50	<b>Facility Location</b> Strategy for new location and various Methods for selecting a site for a factory. Objectives, Various types of plant layout in manufacturing and service industry. Steps for determining layout	CO3- Apply appropriate methods related to the selection of facility location, layout and capacity planning for better productivity, cost effectiveness and increased efficiency of the business	L3: Apply	<u>Internal-Test, Case Study</u> <u>End Term-</u>  Theory
6	2.50	<b>Facility Layout</b> Objectives, Various types of plant layout in manufacturing and service industry. Steps for determining layout	CO3- Apply appropriate methods related to the selection of facility location, layout and capacity planning for better productivity, cost effectiveness and increased efficiency of the business	L3: Apply	<u>Internal-Test, Case Study</u>
7	3	<b>Production / Operations Planning &amp; Control</b> Aggregate planning, Capacity Planning, Material requirement planning, Production / Operation Planning and Control.	CO4-Analyse the various inventory management tools, capacity planning for better productivity, cost effectiveness and efficiency of the business	<b>L4: Analyze</b>	<u>Internal-Test, Case Study, Numericals</u>
8	3	<b>Inventory Management:</b> inventory types, inventory costs, Importance of inventory control and methods of inventory control. EOQ, ABC Analysis.	CO4-Analyse the various inventory management tools, capacity planning for better productivity, cost effectiveness and efficiency of the business	<b>L4: Analyze</b>	<u>Internal-Test, Case Study, Numericals</u>
9	2	<b>Quality management</b> Definition of quality and quality control methods, Dimensions of quality, Cost of quality, QC Tools, Six Sigma, ISO	CO 5- Evaluate the continuous improvement tools for better Quality & decisions making.	L5 Evaluate	<u>Internal-Test, Case Study</u>

<b>Pedagogy</b>
1. Lecture
2. Case Study
3. Presentation / Assignment
4. Activity/ Exercise
5. Videos

### Evaluation

Internal	40%
External	60%
<b>Total</b>	<b>100%</b>

### Parameters of Internal Assessment:

Internal Assessment	20Marks
External Assessment / End Term Exam	30Marks
<i>Internal Assessment:</i>	
Attendance	5 Marks
Class Participation	5Marks
Presentation /Project /Assignment	5Marks
Class Test	5 Marks
Total	20Marks

### Assessment Mapping

Parameter	Marks	CO 1	CO 2	CO 3	CO 4	CO 5
Internal	20	20%	13%	22%	25%	20%
Attendance	5	20%	20%	20%	20%	20%
Class Participation	5	20%	20%	20%	20%	20%
Class Test	5	20%	20%	25%	20%	15%
Assignment / Project / Presentation	5	40%	30%		30%	

<b>End Term</b>	<b>30</b>	<b>20%</b>	<b>16%</b>	<b>22%</b>	<b>22%</b>	<b>20%</b>
<b>Total</b>	<b>50</b>	<b>20%</b>	<b>15%</b>	<b>22%</b>	<b>23%</b>	<b>20%</b>

**Textbook:**

- 1) Production and Operations Management - K. Ashwathappa & K. Shridhara Bhat,  
Himalaya Publications, 2nd  
Edition, 2008, Reprint 2015

**Reference Book:**

- 1) Production and Operations Management - Chase, Ravi Shankar, Jacobs  
Mc Graw Hill, 14th Edition,  
2014, Reprint 2017
- 2) Operations Management- Theory and Practice - B.Mahadevan, Pearson, 3<sup>rd</sup> Edition,2015
- 3) Operations & Supply Management: Ltd - S.N. Chary, Mc Graw Hill Education (India) Pvt  
5th Edition, Reprint 2013,
- 4) Operations Management - William J. Stevenson, Mc Graw Hill, 12th Edition,2017
- 5) Production and Operations Management - Kanishka Bedi, OXFORD, 3rd Edition, 2013

**E-Book:**

- 1) Operations Management Roberta Russell and Bernard Taylor  
[file:///C:/Users/user1/Downloads/Stevenson%20-%20Operations%20Management%2013th%20Edition%20c2018%20\(%20PDFDrive.com%20\)%20\(1\).pdf](file:///C:/Users/user1/Downloads/Stevenson%20-%20Operations%20Management%2013th%20Edition%20c2018%20(%20PDFDrive.com%20)%20(1).pdf)

- 2) Operations Management Nigel Slack, S Chambers & R Johnston  
[http://carlbamford.weebly.com/uploads/4/4/1/3/4413567/operations\\_management\\_6th\\_ed.pdf](http://carlbamford.weebly.com/uploads/4/4/1/3/4413567/operations_management_6th_ed.pdf)

- 3) Operations Management Notes by Anna University --  
[file:///C:/Users/user1/Downloads/UNIT%20-%20I%20INTRODUCTION%20TO%20PRODUCTION%20AND%20OPERATION%20MANAGEMENT%20\(%20PDFDrive.com%20\).pdf](file:///C:/Users/user1/Downloads/UNIT%20-%20I%20INTRODUCTION%20TO%20PRODUCTION%20AND%20OPERATION%20MANAGEMENT%20(%20PDFDrive.com%20).pdf)

- 4) Operations Management -- William Stevenson, Mc - Graw Hill, Edition 12, 2014

[http://ebook3000.com/Operations-Management--12th-edition\\_389046.html](http://ebook3000.com/Operations-Management--12th-edition_389046.html)