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**SECOND SEMESTER 2020-21**  
**COURSE HANDOUT**

**Date: 17.01.2021**

In addition to part I (General Handout for all courses appended to the Time table) this portion gives further specific details regarding the course.

**Course No : MF F219**  
**Course Title : OPERATIONS MANAGEMENT**  
**Instructor-in-Charge : ABHIJEET K. DIGALWAR**

**1. Course Description:**

Introduction to operations management, product planning, forecasting, facilities location and layout, process planning and design, performance measures and capacity planning, scheduling and controlling, material requirements planning and Just-in-time systems, inventory control, human resource management, advances in operations management, case studies and software application.

**2. Scope and Objective of the Course:**

- To provide a good fundamental concept in operations management
- To promote the importance of decision making in operations management
- To study the decision making in design, planning and control of conversion process / manufacturing systems
- To develop decision making skills in conversion process / manufacturing systems
- To make proficient in manufacturing / operations management
  - At the end of this course, the students will be able to understand the importance of decision making process in design, planning and control of manufacturing systems
  - At the end of this course, the student will be able to apply the analytical skills for decision making in operations management

**3. Text Books:**

- T** Russell R. S. & Taylor B. W., “Operations Management”, International Student Version, 7/e, John Wiley and Sons (Asia) Pte. Ltd., 2011.

**4. Reference Books:**

- R1. Chase R.B., Aquilano N.J., and Jacobs F.R., “Operation Management for Competitive Advantage”, 9th Edition, Tata McGraw-Hill, Delhi, 2002.
- R2. Krajewski L. J., and Ritzman L.P., “Operations Management: Strategy and Analysis”, 6th Edition, Pearson Education Asia, India, 2003.
- R3. Wild R., Operations Management, 6th Ed., Thomson Learning, 2003.



## 5. Course Plan:

Module No.	Lecture Session	Reference	Learning outcomes
Introduction to Operations Management	<b>1-3</b>	<b>T1</b>	Role and importance of operations management in a plant. The evolution of manufacturing management.
Product planning	<b>4-7</b>	<b>T4</b>	The product design process, concurrent design, technology in design, QFD
Process planning	<b>8-10</b>	<b>T6</b>	Process planning, analysis and innovation, technology decisions
Capacity and layout planning	<b>11-13</b>	<b>T7</b>	Capacity planning, facility layout, basic layouts, design of layouts, recent trends in layout
Forecasting	<b>14-19</b>	<b>T12</b>	Role of forecasting, components of forecasting demand, forecasting methods, forecasting accuracy
Inventory management	<b>20-23</b>	<b>T13</b>	Role of inventory, elements of inventory, EOQ, EBQ models, Inventory classification methods, inventory control systems
Aggregate planning	<b>24-26</b>	<b>T14 14S</b>	Operations planning process, quantitative techniques for aggregate planning
Resource planning	<b>27-30</b>	<b>T15</b>	Material requirements planning, master production schedule
Scheduling	<b>31-36</b>	<b>T17</b>	Loading, sequencing, monitoring, advanced planning and scheduling systems, theory of constraints
Advances in Operations Management	<b>37-40</b>	<b>Class Notes/Research articles</b>	Recent advances in operations management and impact of Industry 4.0 on operations management

## 6. Evaluation Scheme:

Component	Duration	Weightage (%)	Date & Time	Nature of component (Close Book/ Open Book)
Mid-Semester Test	90 Min.	30%	<TEST_1>	CB/OB
Comprehensive Examination	2 h	40%	13-05-2021 FN	CB/OB
Tutorials/Case Discussions/ Group Projects/ Surprised Class Tests		30%	TBA	CB/OB



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**AUGS/ AGSR Division**

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**7. Chamber Consultation Hour:** Thursday after 3rd hour

**8. Notices:** All notices regarding the course will be communicated through Nalanda/ERP/e-mail

**9. Make-up Policy:** No make-up for class tests and non-appearance in class tests may lead to NC.

**10. Note (if any):**

**Instructor-in-charge**  
**Course No. MF F219**