

Dr. V. N. Bedekar Institute of Management, Thane Teaching Plan (MMS/PGDM) Academic Year (2018-2019)

Programme Name: MMS - Operations Semester: III

Name of the subject: Manufacturing Resource Planning & Control

Maximum marks: 100 No. of Sessions: 14 (40 hours)

Name of the Faculty: Dr. S Rajagopalan

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Weblink:

Learning Objectives:

1. To provide thorough understanding of theoretical concepts, various quantitative techniques applicable for the subject.

- 2. To develop ability to analyze business cases using appropriate techniques.
- 3. To develop understanding of the subject through case study discussions
- 4. To develop ability to interpret the results of case studies and give suggestions and recommendations.

Reference Books:

- 1. Operations Management—B. Mahadevan
- 2. Production Operations Management Chase and Jacob
- 3. Other open sources.



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Plan:

Session	Topics to be covered	Books referred/ Recommended/	Learning outcomes	Evaluation of Students
No		References-Print/Articles/		understanding by
		News/Research papers/ Online database/		MCQs, Quiz, Short Test
		Software /Simulations used		
1	Chapter 1 - Overview of Operations Planning & Control, Present Business Environment, Challenges in competitive edge	Operations Management by M Mahadevan, Other open sources;	Understanding of theoretical concepts	
2	Chapter 1 - continued	Examples from business cases and discussion on the same.	Develop quantitative abilities	
3	Chapter 2 - Various Manufacturing Resources, importance of their planning & control	Operations Management by M Mahadevan, Other open sources;	Understanding of importance of Resources	
4	Chapter 2 – continued – Functions of Operations Planning & Control	Case study and discussion on effect of design changes	Develop analytical abilities	Evaluation of students' understanding will be
5	Chapter 3 - Hierarchy of Production Planning Overview and linkage to business plans	Operations Management by M Mahadevan, Other open sources;	Understanding of concepts related to business plans	done through following methods: i. conducting quiz programs from time to
6	Chapter 3 – continued – Concept of aggregation and APP	Numerical examples on APP and Lecture discussions	Develop quantitative ability	time during the sessions. ii. Class Test will be
7	Chapter 4 – Optimization Models related	Operations Management by FedUni;	Develop analytical and	conducted as part of

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	to operations management – Linear Programming & other optimal models	Analysis of business cases with numerical examples on Linear Programming	competitive abilities
8	Chapter 4 – continued – Line Balancing, Quantitative models for layout	Numerical problems on Line Balancing and layout models	Develop analytical and competitive abilities
9	Chapter 5 & 6 – Master Production Schedule and material flow in manufacturing scenarios, planning horizon time periods.	Operations Management by M Mahadevan, Numerical problems on developing MPS	Understanding of theoretical concepts and problem solving.
10	Chapter 7 - MRP systems, Dependent and Independent Demands, Types of BoM	Operations Management by M Mahadevan, Other open sources; Quantitative problems on MRP systems	Understanding of theoretical concepts and problem solving.
11	Chapter 8 -Capacity Management, CRP, Scheduling Strategies	Operations Management by M Mahadevan, Other open sources; Quantitative problems on MRP systems	Understanding of theoretical concepts and problem solving.
12	Chapter 9 & 10 – MRP II, relationship to demand management and capacity management, comparison of MRP I and MRP II	Op. Mgmt by M. Mahadevan, Op. Mgmt by FedUni. Lecture and case studies	Understanding of theoretical concepts and problem solving
13	Chapter 11 – ERP systems, need, functions and utility to business, use in decision making	Operations Management by M Mahadevan, Other open sources; lecture discussions	Understanding of theoretical concepts and practical applications
14	Class Test for students. Feedback and revision		
15	Case Presentations by Students		

internal assessment.
iii. Case study
presentations by students
in the last session.



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Practical Approach: Other activities (At least 4 distinct activities)

Sr.	Activity Name	Topic Covered	Learning outcomes	Source
No.				
1	Role Play			
2	Industry Visit			
3	Academic Projects	Projects involving application of resources from manufacturing industry	Analyzing practical problems in industry and recommending solutions.	
4	Book Review	Review of cases from books and discussion in the class	Relating business cases with theory to assist decision making.	
5	Group Discussion			
6	Business Quiz / Business News sharing	Business quiz covering topics related to operations management planning and control of resources	Developing clarity about theoretical concepts related to operations management.	
7	Videos / Simulation			
8	Use of Software and Labs	Use of excel solver and other excel functions on topics related to APP, MPS, MRP	Developing analytical and quantitative abilities for problem solving.	
9	Any other activity			



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Evaluation:

Internal:

Component	Details	Marks
Class Test	Class test of one hour duration with questions from selected topics	20
Presentation	Project presentation by student groups on cases assigned to them.	10
Case Study	Case presentation on selected cases from books	5
Participation	Participation on analysis of business cases	5
Others		

Signature of Faculty

Signature of the Co-ordinator