

**Faculty of Engineering & Technology, SRM University, Katankulathur - 603203**  
**Department of Mechanical Engineering**  
**Course Plan**

**Course Code: ME0023**

**Course Title: PRODUCTION MANAGEMENT**

**Year / Sem: IV Year / 8<sup>th</sup> Sem (Even)**

**Academic Year: 2014 - 2015**

Section	Detail of Faculty Member				
	Name	Room No.	Intercom No. / cell	E - mail Id	Student contact time
Elective class	R.G.PADMANABHAN	MEH109	1810 9944163100	padmanabhan.g@ ktr.srmuniv.ac.in	12.30 pm To 01.15 pm

**Direct Assessment Details:**

Name of Assesment	Marks	Topics	Tentative Date	Duration
Cycle Test - I	10	Unit I- full and unit II - Till Warehouse method study	09 - 02 -2015	100 Min
Cycle Test - II	10	Till Unit - III Methods- MPS-Scheduling	09 - 03 - 2015	100 Min
Surprise Test	05	Unit - IV	Tentative from 16 to 20 - 04 - 2015	10 -15 Min
Model Examination	20	All V - Units	15 - 04 - 2015	3 Hours
End Sem Examination	50	All V - Units	Tentative date 06 - 05 - 2015	3 Hours
Attendance	05		Till 30 - 04 - 2015	

**PURPOSE**

To get acquainted with the basic aspects of Production Management.

**INSTRUCTIONAL OBJECTIVES**

The course attempts to discuss various important planning, organizing and controlling aspects of Operations Management

Through text and case studies, this course prepares for a study of different operational issues in manufacturing and services organizations.

**INTRODUCTION**

History and overview of production management - Capacity planning, Location planning - Types of production processes. Layout planning - Productivity management.

**INVENTORY MANAGEMENT**

Deterministic and Probabilistic inventory management models - Purchasing and warehousing, Methods study, Motion study and Work measurement - Simple problems.

**SCHEDULING**

Job Evaluation - Wage incentive schemes - Value analysis - Forecasting - Aggregate planning - Scheduling: Gantt charts and Sequencing - Simple problems.

**MRP**

Project Management with PERT/CPM - Material requirements - Planning (MRP) - Manufacturing - Resources planning (MRP II) - Enterprise resource planning (ERP)

**TQM**

Total Quality Management - Quality management systems - Statistical process control (SPC) - Maintenance management - Reliability and maintenance, Replacement techniques, Logistics and supply chain management.

**TEXT BOOKS**

Ahuja, K. K., Production Management, CBS Publishers, New Delhi, 1993

Goel, B. S., Production management, Pragathi & prakasam publishers, Meerut, 1984

**REFERENCE BOOKS**

Hajra Nirjhar Roy, Production management, MP Publishers, New Delhi, 1990

Narang, G. B. S. and Kumar, V., Production management, Khanna publishers, New Delhi, 1989

Agarwal and Jain, Production management, Khanna publishers, New Delhi, 1998

Levin and Richard, Production and operation management, Tata McGraw Hill publications, New Delhi, 1990

ME0023 - PRODUCTION MANAGEMENT												
1	Student outcomes	a	b	c	d	e	f	g	h	i	j	k
		X	X	X	X				X			
2	Mapping of instructional objectives with student outcome	1	1,3	3-5	1,3				2			
3	Category	General (G)	Basic Sciences (B)		Engineering Sciences and Technical Arts (E)			Professional Subjects (P)				
								X				
4	Board area (for professional courses only, i.e, 'under P' category)	Manufacturing		Design		Thermal			General			
		X										
5	Course Co-ordinator	R.G.PADMANABHAN										

**SRM UNIVERSITY**  
**SCHOOL OF MECHANICAL ENGINEERING**  
**SESSION PLAN**

Course Code: ME0023

Academic Year: 2014 - 2015

Course Title: PRODUCTION MANAGEMENT

Year / Sem: IV Year / 8<sup>th</sup> Sem (Even)

Session No.	Title / Details of Chapter	Reference code of text book with page numbers
<b>INTRODUCTION TO PRODUCTION MANAGEMENT</b>		
1	History and Development of production management	T1, Chapter - 1
2	Functions & scope - Types of production processes	T1, Chapter - 2
3	Relationship of production management with other functional areas	R6, Chapter - 1.4
4	Capacity planning--- Types of Capacity	R6, Chapter - 5.10
5	Capacity Decision	R6, Chapter - 5.10
6	Capacity Planning Strategies	R6, Chapter - 5.10
7	Location planning	R6, Chapter - 2.1, 2.2, 2.3
8	Layout planning	R6, Chapter - 2.7, 2.8, 2.9, 2 10
9	Productivity management.	R6, Chapter - 7.2
<b>INVENTORY MANAGEMENT</b>		
10	Inventory control-Cost-Procurement and consumption cycle -Purchasing methods	T1, Chapter - 18,19,21
11	Procedure-Records used in stock control -Warehousing, Method study	T1, Chapter - 24

12	Definitions, Means of increasing productivity,	R6, Chapter - 4.6
23	Role of work study, human factors in work study	R6, Chapter - 73
14	Factors affecting work-study	R6, Chapter - 7.3
15	Objectives-Basic procedure for method study	R6, Chapter - 7.4
16	Charts and diagrams used in method study, work measurement	R6, Chapter -7.4
17	Objective and techniques of work measurement	R6, Chapter - 7.6
18	Simple problems.	R6, Chapter - 7.4, 7.6
<b>JOB EVALUATION AND SCHEDULING</b>		
19	Job Evaluation -objectives - methods-Factors affecting wages structure - components	R2, Section - 2
20	Types of wages-methods of wage system -Characteristics	R2, Section - 2
21	Value analysis and Value Engineering	T1 Chapter - 30, R2 Section- 5
22	Forecasting	R2, Section - 7
23	Aggregate Planning -Strategies	R6, Chapter - 5.7
24	Methods- MPS-Scheduling	R6, Chapter - 5.12, 5.13
25	Principles, inputs, strategies - Sequencing - Assumptions	R6, Chapter - 5.12, 5.13
26	Gantt chart -Johnsons Algorithm	R6, Chapter - 5.12, 5.13
27	Simple problems	R6, Chapter - 5.12, 5.13
<b>PROJECT MANAGEMENT AND MRP</b>		
28	Project Management – Phases	R3, Chapter - 30
29	Time Chart –PERT-CPM	R3, Chapter - 30
30	Material Requirements Planning (MRP)	R3, Chapter - 25
31	Manufacturing Resources Planning (MRP II)	R3, Chapter - 27
32	Enterprise resource planning (ERP)	R3, Chapter - 27
33	Logistics	T1, Chapter - 36
34	Supply Chain Management	T1, Chapter - 36
35	Objectives- Decision Phases	T1, Chapter - 36
36	Role – Development	T1, Chapter - 36
<b>TOTOAL QUALITY MANAGEMENT</b>		
37	Quality management systems –Factors controlling quality	R6, Chapter -6.1, 6.2, 6.3
38	Impact of poor quality – Challenges - Quality Cost	R6, Chapter - 6.5
39	Quality Assurance - Quality circle	R6, Chapter - 6.7
40	Statistical process control (SPC)	R6, Chapter - 6.6

41	Control Charts	R6, Chapter - 6.6
42	Total Quality Management	R6, Chapter - 6.8
43	Just in Time	R6, Chapter - 4.11
44	Six Sigma-Maintenance management, Types,	R6, Chapter - 8.6
45	Effects of maintenance, - Reliability - Replacement techniques	R2, Section - 8

### TEXT BOOKS

1. Ahuja, K. K., Production Management, CBS Publishers, New Delhi, 1993
2. Goel, B. S., Production management, Pragathi & prakasam publishers, Meerut, 1984

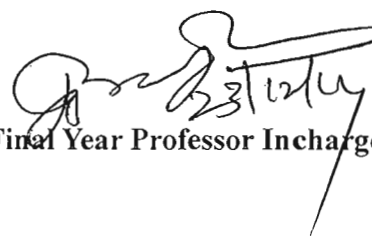
### REFERENCE BOOKS

1. Hajra Nirjhar Roy, Production management, MP Publishers, New Delhi, 1990
2. Banga T.R. and .Sharma S.C, Industrial Engineering and Production management, Khanna publishers, New Delhi, 2013
3. Agarwal and Jain, Production, planning and quality management, Khanna publishers, New Delhi, Reprint edition 2002
5. Levin and Richard, Production and operation management, Tata McGraw Hill publications, New Delhi, 1990
6. S. Anil and N. Suresh, Production and operation management, New Age International Publishers, New Delhi, 2008



**Course Co-ordinator**

R.G.Padmanabhan - AP/O.G



**Final Year Professor Incharge**