



Lesson Plan

Operation Planning and Control

Program: MBA

Semester: III

Course Code: KMBNOM-02

Course Name: Operation Planning and Control

Course Objectives:

(CO1): To understand the various fundamentals and functions of production planning and control

(CO2): To impart learning on work study procedures and practices

(CO3): To generate understanding on the essentials of product/process planning and useful tools to accomplish both

(CO4): To develop knowledge and ability to undertake production scheduling procedures.

(CO5): To Know the recent trends in production planning and control such as manufacturing requirement planning (MRP2) and Enterprise Resource planning and global Practices.

Session Duration: 60 minutes

Participants: MBA Students

Entry level knowledge and skills of students

- i. Basic Knowledge of Production & operations concepts
- ii. Basic Knowledge of role of operations in the management of the organization

Equipment required in Classroom/ Laboratory/ Workshop

- i. White Board, Marker and Duster
- ii. Smart Board, Projector& system

Assessment Schemes

S. No.	Criteria	Marks (150)
1	AKTU End Term Examination	100
2	Internal Evaluation Scheme	50
2(a)	Class Tests	30
2(a)(i)	Class Test-I	15
2(a)(ii)	Class Test-II	15
2(b)	Teacher Assessment (Continuous Evaluation)	20
2(b)(i)	Attendance	5
2(b)(ii)	Case Study/Topic Based Presentation	5
2(b)(iii)	*GD	10
	*MCQ Based Assignment	2



Course Outcomes (starting with action-oriented observable and measurable verb)

(CO1): It will help in understanding the fundamentals of production planning and profit considerations.

(CO2): It will provide quantitative knowledge and capability to use various product /process planning tools.

(CO3): It will enable them to devise appropriate strategies concerning aggregate planning and control

(CO4): It will help in resolving complex scheduling issues by way of implementing standard scheduling procedures.

(CO5): It will enhance exposure to recent trends in production planning and control and increase adaptability with latest global production practices.

L. No.	Topics	Sub Topics	Date of implementation	Pedagogy	CO-Covered	Faculty Sign	HoD's Remark with Date
Unit - 1							
1.	Introduction	Introduction		Lecture	CO1		
2.	Introduction	Meaning of Production Planning & Control		Lecture	CO1		
3.	Introduction	Objective of Production planning & Control		Lecture	CO1		
4.	Introduction	Role and Responsibilities of PPC Manager		Lecture	CO1		
5.	Introduction	Forecasting Qualitative and Quantitative analysis techniques			CO1		
Unit - 2							
6.	Process of Production Planning and Control	Concept, types, plant capacity		Group Discussion	CO2		



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7.	Process of Production Planning and Control	Capacity Planning		Group Discussion	CO2		
8.	Process of Production Planning and Control	Routing		Group Discussion	CO2		
9.	Process of Production Planning and Control	Scheduling		Group Discussion	CO2		
10.	Process of Production Planning and Control	Loading		Group Discussion	CO2		
11.	Process of Production Planning and Control	PPC in different production systems: Job		Group Discussion	CO2		
12.	Process of Production Planning and Control	PPC in different production systems: batch		Group Discussion	CO2		
13.	Process of Production Planning and Control Process of Production Planning and Control	PPC in different production systems Job : Mass (assembly) and continuous		Group Discussion	CO2		
Unit - 3							
14.	Aggregate Planning	Meaning, Strategies and Cost		Lecture	CO3		
15.	Aggregate Planning	Concept of Aggregate Planning		Lecture	CO3		
16.	Aggregate Planning	Capital intensive		Lecture	CO3		
17.	Aggregate Planning	labor-intensive and Fashion industries		Lecture	CO3		



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18.	Aggregate Planning	labor-intensive and Fashion industries		Lecture	CO3		
19.	Aggregate Planning	Materials requirement planning (MRP-1)		Lecture	CO3		
20.	Aggregate Planning	Materials requirement planning (MRP-2)		Lecture	CO3		
21.	Aggregate Planning	Enterprise Resource Planning (ERP)			CO3		
22.	Aggregate Planning	Global Practices			CO3		
Unit - 4							
23.	Waste Management	Value and Waste		Lecture	CO4		
24.	Waste Management	Types of waste		Lecture	CO4		
25.	Waste Management	5S techniques of eliminating wastes		Lecture	CO4		
26.	Waste Management	5S techniques of eliminating wastes		Lecture	CO4		
27.	Waste Management	5S techniques of eliminating wastes		Lecture	CO4		
28.	Waste Management	Lean Process to minimize wastages		Lecture	CO4		
29.	Waste Management	Lean Process to minimize wastages		Lecture	CO4		
30.	Waste Management	Lean Process to minimize wastages		Lecture	CO4		
31.	Waste Management	Case Study		Mind Storming	CO4		



Unit - 5							
32.	Control Systems	Production Control Systems		Lecture	CO5		
33.	Control Systems	Gantt Charts		Lecture	CO5		
34.	Control Systems	Bar Charts		Lecture	CO5		
35.	Control Systems	production progress reporting		Lecture	CO5		
36.	Control Systems	Performance analysis		Lecture	CO5		
37.	Control Systems	System feedback		Lecture	CO5		
38.	Control Systems	Role of control rooms in production plants		Lecture	CO5		
39.	Control Systems	strategies for corrective actions		Lecture	CO5		
40.	Control Systems	Case Study		Mind Storming	CO5		
41.	Control Systems	Case Study		Mind Storming			
Revision							
42.		Unit -1		Class discussion	CO1		
43.		Unit -1		test	CO1		
44.		Unit-2		Class discussion	CO2		
45.		Unit-2		test	CO2		
46.		Unit-3		Class discussion	CO3		
47.		Unit-3		test	CO3		
48.		Unit-4		test	CO4		
49.		Unit-5		test	CO5		



Text Books:

1. Chopra, Sunil, Menindl, Peter and Kalra, D.V.; Supply Chain Management: Strategy, Planning Operation: Pearson Education
2. Altekar, Rahul V.: Supply chain Management: Concepts and Cases; PHI Learning

Reference Books:

1. Ballou, Ronald H.: Supply Chain Management Pearson Education
2. Sahay, B.S: Supply Chain Management: Macmillan
3. Ballou, R.H. Business Logistics Management. Prentice -Hall Inc.
4. Bowersox D.J., Closs D.J., Logistics Management, McGraw- Hill

Journals:

1. Journal of Manufacturing Systems
2. International Journal of signific & Engineering research
3. Production Planning & Control

Electronic Database: