

# **7306 Production and Operations Management**

## **Objectives**

The Course is designed to acquaint the students with decision making in: Planning, scheduling and control of Production and Operation functions in both manufacturing and services; Productivity improvement in operations through layout engineering and quality management etc.; Effective and efficient flow, replenishment and control of materials with reference to both manufacturing and services organisations.

## **Course Contents**

1. Nature and Scope of Production and Operations Management Decisions, Types of Manufacturing Systems,
2. Production Planning and Control : An Overview Facilities Location, Facilities Layout.(a) Aggregate Planning - MRP, (b) Scheduling (c) Line Balancing, Capacity Planning ;
3. (a) Work Study Methods Study, Work Measurement, Maintenance Management, Industrial Safety, Supply Chain Management, enabled supply chain management chain management models.
4. Material Management : An Overview Material Handling, Equipment, Line Balancing Problems, Operation Decision, MRP and Budgeting, Purchasing and Store Management, Inventory Control.
5. Concept of Quality and Quality Assurance, Statistical Process Control (Acceptance Samplings), ISO, 9000, Total Quality Management (TQM), Six Sigma.

## **Suggested Readings**

1. *Adam, E E & Ebert, R.J. Production and Operations Management. 6th ed., New Delhi, Prentice Hall of India, 1995.*
2. *Amrine Harold T. etc. Manufacturing Organisation and Management. Englewood Cliffs, New Jersey, Prentice Hall Inc., 1993.*
3. *Buffa, E S. Modern Production Management. New York, John Wiley, 1987.*
4. *Chary, S N. Production and Operations Management. New Delhi, Tata McGraw Hill, 1989.*
5. *Dobler, Donald W and Lee, Lamar. Purchasing and Materials Management. New York, McGraw Hill, 1984.*
6. *Dilworth, James B. Operations Management: Design, Planning and Control for Manufacturing & Services. Singapore, McGraw Hill, 1992.*
7. *Moore, FG and Hendrick, T E. Productionl Operations Management. Homewood, Illinois, Richard D. Irwin, 1992.*

The list of cases and specific references including recent articles will be announced in the class at the time of launching of the course.