
Title: Operation Management**Code: MGMT 532****Credit Hours: 3****Year /Semester: II/III****48 Hours**

Course Objectives:

The course is designed to enable students appreciate the strategic significance of operations management in highly competitive global economy and to introduce various principles, concepts, tools and techniques developed in the area of operations management over the years. It is envisaged that students would gain a conceptual understanding of the subject and relate them to practical applications in real life situation.

Unit 1 Introduction to Operations Management**12 Hours**

Nature & Scope of Operations Management, Historical Evolution of Operations Management, Systems Perspectives of Operations Management, and Relationship of Operations Management with Other Functional Areas, Operations Strategy, Recent Trends in the Field of Operations Management

Unit 2 Product Development**14 Hours**

Product Development Process, Concurrent Engineering, Tools and Approaches in Product Development viz: Quality Function Deployment, Design for Manufacturability, Design for Assembly, Design for Quality, Mass Customization; Process Selection and Facilities Layout: Determinant of Process Selection, Process-Product Matrix, Types of Layouts, Line Balancing; Facilities Location; Work Measurement and Job Design

Unit 3 Demand Forecasting**10 Hours**

Capacity Planning; Resources Planning: Aggregate Production Planning Materials Requirement Planning, Scheduling; Theory of constraints and Synchronous Manufacturing; Lean Management and Just in Time Production; Supply Chain Management; Inventory Planning and Control

Unit 4 Quality Management**12 Hours**

Definition, Dimension, Cost of Quality, Continuous Improvement (Kaizen), ISO (9000 & 14000 Series), Quality Awards, Statistical Quality Control: Variable & Attribute, Process Control, Control Chart (X, R, p, np and C chart) Acceptance Sampling Operating Characteristic Curve (AQL, LTPD, a & b risk) Total Quality Management (TQM)

Reference Books:

1. Mahadevan B. (2010). *Operations Management: Theory and Practice*, 2nd Edition, Pearson Education.
2. Chase, R.B, et. al. (2010) *Operations Management for Competitive Advantage*, Tata McGraw Hill, New Delhi
3. Stevenson W. J (2007). *Operations Management*, 9th Edition, Tata McGraw Hill, New Delhi