Course Title: Operations Management
Course Code: 15MB52C4

SEM II/Year I **L-T-P : 3-0 -0** **Credits : 3**

COURSE OUTCOMES

After completion of this course, the student will be able to

1. Illustrate the general concepts of overall plant and production management using appropriate analysis tools
2. Establish methods for maximizing productivity and understand the purpose of setting and attaining high levels of throughput, quality, and customer service
3. Optimize the use of resources which include: people, plant, equipment, tools, inventory, premises and information systems
4. Make the best use of computers to achieve maximum efficiency, especially in the planning and control of operations

SYLLABUS

Introduction: An overview of Operations Management-Introduction and Overview-Operations Management Strategy framework-Understanding similarities and difference among Products, Goods and Services-Historical Evolution of Operations Management-Changes & Challenges-**Product development: Operations strategy-** Product Strategy and Integrated Product Development- Process Strategy- Capacity Planning Decisions- Facilities Location Strategies.**System Design-**Facilities Layout and Material Handling Strategy-Group Technology-Flexible Manufacturing System- Project Management-CPM PERT . **Productivity & Quality Tools-**Productivity Concepts-Quality Circle-Kaizen-Value Analysis and Value Engineering-Total Quality Management- Statistical Quality Control- Maintenance Planning and Control (Reliability, availability, maintainability)-Work Study-Method Study &Work Measurement-Learning Curves-Work Sampling-control charts.**Planning and Managing Operations-** Demand Forecasting-Supply Chain Management-Purchasing, Vendor Selection and Material Management-Inventory Management & Just-in-Time Systems-Materials Requirement Planning, Job Sequencing-Transportation problems-Assignment problems. **Advanced Operations Management-**Service Operations Management – ERP – Lean systems – Constraint management (TOC) – Computer Integrated Manufacturing – DSS for Operations Management

RECOMMENDED TEXT BOOK

Norman Gaither and Greg Frazier (2008)-Operations Management, 9th International Student Edition, South Western, Thomson Learning Inc.

REFERENCE BOOKS

1. Chase et al, Production and Operations Management.
2. Everett Adam and Ronald Ebert, Production and Operations Management: Concepts, models and behavior, 5th edition, 2009.
3. William Stevenson, Operations Management, Tata McGraw Hill Company, New Delhi.
4. Nigel Slack, Stuart Chambers and Robert Johnston, Operations Management, fourth edition, Pearson