

Name of the Subject: OPERATIONS MANAGEMENT
Course Code and Subject Code: CC 206, OM
Course Credit: FULL (50 SESSIONS OF 60 MINUTES EACH)

Course Description

World Class performance in delivering high quality, cost competitive products and services is essential to survival in today’s global economy. Operations Management is the function that is uniquely associated with the design and management of the transformation process. The continuous change in the approach towards operations function reflects the manner in which ‘Operations’ impact the organization. Operations strongly influence how the funds of the organization are utilized. Efficient processing is the basis for the value creation logic of world class organizations.

This Course on Operations Management introduces issues related to strategic decision making, design, and planning and operations control in the domain of operations to achieve competitiveness and be a world class performance.

Evaluation pattern:

Class participation and Attendance	10%
Quizzes, Presentations and Assignments	20%
Mid Term Examination	30%
End Term (University) Examination	40%

Pedagogy:

- Lectures
- Case study
- Minor projects

Session	Course Content	Percentile weightage
1 - 2	<p>Introduction to Operations Management</p> <p>Definitions, Difference between Products and Services, Ten critical decisions in OM, Exciting new trends in OM, productivity challenge</p> <p>Case: Kishore Biyani and Big Bazaar</p>	10%

3 - 6	<p>Operations Strategy</p> <p>Global view of operations, developing missions and strategies, Achieving competitive advantage through operations, Issues in operations strategy, strategy development and implementation</p>	
7-10	<p>Design of goods and services:</p> <p>Goods and services selection, generating new products, Product Development, Issues for Product Design, Defining Product., Documents for production, Service Design</p>	5%
11-14	<p>Process Strategy:</p> <p>Four Process strategies, Process analysis and design, service process design, selection of equipment and technology, Technology in services, Process redesign, Ethics and environmentally friendly processes</p>	5%
15-19	<p>Facility Location:</p> <p>Decisions related to logistics, Factors affecting location, methods of location like factor rating, centre of gravity, transportation model, with Examples, Case: Tata's "Dream Car" Plant Location</p>	15%
20-23	<p>Facility Layout:</p> <p>Strategic importance of layout, Types of layout – office layout, retail layout, Warehousing and storage layouts, fixed position layout, Process-oriented layout, Work cells,, Repetitive and product oriented layout including assembly line balancing</p>	
24-26	<p>Operations Scheduling::</p> <p>Importance of Scheduling, Scheduling issues, Assignment method of loading jobs, Sequencing jobs, personnel scheduling in services</p>	5%
27-31	<p>Project Management:</p> <p>Importance, Meaning and types of projects with differences and applications, Work breakdown structure, Gantt Chart, network models, time-cost model with problems with understanding of Network Crashing</p> <p>Case: E. Sreedharan and Delhi Metro Rail Project</p>	15%
32-34	<p>Material Requirement Planning (MRP): Dependent inventory model requirements, MRP structure, management and lot sizing techniques,</p>	5%

	Extensions of MRP and MRP in services	
35-39	<p>Inventory Management: Types and functions of inventory, Inventory management, Inventory models, Inventory related costs, Probabilistic models and safety stock, fixed period systems, with Examples</p> <p>Case: Pantaloon – Revolutionizing Inventory Management in Indian Retailing</p>	15%
40-44	<p>Managing quality Defining quality, International quality standards, TQM with its tools, Six sigma – DMAIC cycle, TQM in services, Statistical process control, Acceptance sampling</p>	10%
45-48	<p>Supply chain Management: Meaning and strategic importance of supply chain, Supply Chain economics, Supply chain strategies and management, E-procurement, Vendor selection, Logistics management, Measuring performance</p>	10%
49-50	<p>JIT and Lean Management: Meaning of JIT, JIT layout, JIT inventory, JIT Scheduling, JIT Quality, Toyota production system, Lean operations, including services</p>	5%

Text Book:

1. Operations Management, Heizer, Render and Jagdish Rajsekhar, 9th Edition, Pearson Education

Reference Books:

1. Operations management for Competitive Advantage, Chase, Aquilano, Jacobs and Shankar, 12th Edition, Tata Mcgraw Hill
2. Production and Operations Management, Kanishka Bedi, 2nd Edition, Oxford
3. Operations Management Along the Supply Chain, Roberta S. Russell, and Bernard W Taylor, Wiley India
4. Operations Management: Theory and Practice, B. Mahadevan, 2nd Edition, Pearson Education
5. Operations Management, William Stevenson, 9th Edition, Tata Mcgraw Hill Publication
6. Production and Operations Management, R. Paneerselvam, 3rd Edition, Prentice Hall