Name of the Program: Bachelor of Commerce B.Com LSM
Course Code: B.Com.4.2
Name of the Course: Operations Management

Course Credits	No. of Hours per Week	Total No. of Teaching Hours
4 Credits	**4 Hrs**	**60 Hrs**

Pedagogy: Classrooms lecture, tutorials, Group discussion, Seminar, Case studies & field work etc.

COURSE OBJECTIVES:

To familiarize the students with the operations in the logistics sector. To bring about awareness among students with changes and innovations in the operations of logistics.

LEARNING OUTCOMES:

- Identify the elements of operations management and various transformation processes to enhance productivity and competitiveness.
- Analyze and evaluate various facility alternatives and their capacity decisions to develop a balanced line of production & scheduling and sequencing techniques in operation environments.
- Plan and implement suitable materials handling principles and practices in the operations. Plan and implement suitable quality control measures in Quality Circles to TQM.

Syllabus:	**Hours**
Module No. 1 An overview of Operations Management	**06**
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	
Module No. 2: Product development: Operations strategy	**07**
Product Strategy and integrated product development-Process Strategy-Capacity Planning Decisions-Facilities Location Strategies	
Module No. 3 System Design	**12**
Facilities Layout and Material Handling Strategy-Group Technology, Flexible manufacturing system-Assembly line balancing-Project Management-CPM PERT(concept & problems)- Line of Balance (LOB)	
Module No. 4: Productivity & Quality tools	**13**

Productivity Concepts :Quality Circle, Kaizen and other SGA-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-Service Operations Management-Lean systems.

Module 5: A. Planning and managing operations **B. Transportation & Assignment Models**	**22**

Demand Forecasting, Value chain and Supply chain Management-Purchasing, vendor selection and material management-Inventory Management & Just-in-Time Systems Materials Requirement Planning ,MRP II and ERP-Aggregate Operations Planning Scheduling, sequencing and dispatching Definition of the transportation model. Balanced / Unbalanced, Minimization / Maximization. Determination of the initial basic feasible solution using (i) North-West Corner Rule (ii) Least cost method & (iii) Vogel's approximation Method for balanced & unbalanced transportation problems. Optimality Test & obtaining of optimal solution. (Considering per unit transportation cost)-Assignment Problem – Hungarian method Statement of Transportation & Assignment Problems as L.P. Problems

SKILL DEVELOPMENT ACTIVITIES:

- Go to any 2 logistics company or freight management company and compare their operations.
- Find out about the lean management techniques used

REFERENCE MATERIALS

1. S. Anil Kumar & Suresh, Operations Management, New Age International publishers
2. Chase & Jacob, Operations Management –Mcgraw Hill Publishers
3. Gangan Deep Sharma & Mandeep Mehendu, Production and Operations Management, Bangalore University
4. Prem Kumar Gupta, Problems in Operation Research,S.Chand.
5. Rajashekaran & Lalitha –Corporate Accounting – Pearson, New Delhi, 2011.
6. S. Anil kumar, V. Rajesh kumar and B. Mariyappa – Advanced Financial Accounting – Himalaya Publishing House.