IMPC5003 OPERATIONS MANAGEMENT-I (3-0-0)

Course Objectives:

- To understand the concept, principles, problems and practices of operation management.
- To understand the importance of an effective operation strategy in organization.
- To understand the various production design decision and how they relate to the overall strategic of organization.

Module-I : Nature & Scope of Production & Operations Management :
Nature of Production, Production as a system, Production as an organization function, Decision making in production, Importance of production function, Scope of Production & Operations management, Evolution of production function, Characteristics of Modern Production & Operations function, Productive system – examples, products vs. services.

Module-II: Product Design & Forecasting for Operations: Concept, Product development –concept ;Product Life Cycle, Process design, ; Process technology, Process technology life cycle, Economic analysis of production processes (cost function of processing alternatives, break even analysis, financial analysis).Nature and use of forecast, Sources of Data, Forecasting model – Quantitative or Time series Methods Qualitative Accuracy of forecasting Methods.

Module-III: Inventory Management: Meaning & definition, Objectives of inventories, Inventory Management & control, Factors influencing inventory management & control, Benefits, Process of Inventory mgmt. & control, Inventory control techniques – ABC, HML, VED, SDE, FSN, EOQ, MRP & JIT, Kanban, Japanese Inventory system, TQM, QFD, Lean Manufacturing,5s, Kaizen, Hijuka Box, Poka Yoke.

Course Outcomes:

CO-1: Appreciate the strategic role of OM in creating and enhancing a firm's competitive advantages.
CO-2: Interpret key concepts and issues of OM in both manufacturing and service organizations.
CO-3: Analyse business processes in services / manufacturing for improvement.
CO-4: Identify the operational issues in the value addition processes of a firm.
CO-5: Apply analytical skills and problem-solving tools to resolve the operational issues.

Books:

- Production & Operations Management : K Aswthappa & K S Bhatt(HP) Production & Operations Mgmt.: R. Paneerselvam(PHI)
- Production & Operations Management : S.N.Chary.
- Modern Production & Operations Management : Buffa and Sarin 5).
- Essence of Operations Management : Terry Hills (PHI)