

Course Code	Course Name	L-T-P	Credits
MAN2111	Operations Management	5-1-0	6

Module 1: Introduction to Operations and managerial strategies

Field of Operations Management and its Historical Evolution – Production systems and advent of Operations Management – Corporate Strategy Design Process- Fitting Operational Activities to Strategy

Module 2: Business Process Design

Process Selection – Manufacturing Process Flow Design – Measuring Product Development Performance – Planning the strategic use of resources -Plant location and Plant Layout – Assembly-Line balancing with numerical Takt time

Module 3: Inventory Systems Management

Material Planning and Control – Operations Planning and Scheduling Systems, Aggregate Planning, Master Production Schedule (MPS), Material Requirement Planning (MRP), Capacity Planning, Routing, Scheduling – Inventory Costs, Independent versus Dependent Demand – Inventory Systems- ABC, EOQ, FSN, VED and VMI

Module 4: Supply Chain Management

Introduction to SCM – Bull whip effect – Push and Pull Systems – Role of Technologies in SCM

Module 5: Maintenance and Responsible Waste Management

Maintenance planning and scheduling – Modern Scientific Maintenance Methods- Six Sigma Maintenance, Enterprise – Asset Management (EAM), Lean Maintenance, Computer Aided Maintenance – Total Productive Maintenance (TPM) – Reasons for Generation and Accumulation of Obsolete, Surplus and Scrap Items – Identification and Control of Waste, Disposal of Scrap – Trends in Waste Management and emerging methods of Waste Disposal

Module 6: Quality Management

Management of Quality – Introduction to QM tools such as TQM, SPC, 7 QC tools and Six Sigma – Global Conventions and guidelines on Quality Management – Project Monitoring and evaluation techniques – Structuring Projects and Work Breakdown Structure – Ethics, business conduct, Compliance and Operational Due diligence – Frugal and flexible Innovations – Lean concepts & Sustainable operations

Textbook

1. Paneerselvam.R, Production and Operations Management, Prentice Hall of India, 8th edition, 2016

References

1. Mahadevan B, Production and Operations Management, 3rd edition, Prentice Hall of India, 2018
2. Aswathappa K, Sridhara Bhat K, Production and Operations Management, Himalaya Publications, 2010
3. Bedi Kanishka, Operations Management, Oxford University Press, 2010
4. Chary S.N, Production and Operations Management, Tata Mc Graw Hill Publications, 2016