

SYLLABUS :-

Prerequisite: IM21003 Operations Research-1Demand forecasting: Long and Short-term demand forecasting methods, Regression analysis and smoothing methods, Estimation of trend, cycle, and seasonality components, Analysis of forecast error and computer control of forecasting systems.Production-distribution system design: Plant location and capacity scheduling, Multiple plant production facility design.Aggregate planning and master production scheduling, Aggregation techniques, Aggregate capacity scheduling, Disaggregation of aggregate plan. Master production scheduling: Analytical and computer integrated solution techniques, Operations scheduling and control: Basic sequencing and scheduling techniques, Dispatching rules, Progress chasing and Updating of production schedules.Design of production planning and control systems: system design for continuous and intermittent production systems, Integration of master production, Material requirement and Shop scheduling systems.Books.S.L. Narasimhan, D.W. Mc Leavy, and P.J. Billington, Production Planning and Inventory Control, PHI, 2nd Edition.R.Peterson, and E.A. Silver, Decision Systems for Inventory Management and Production Planing, John Wiley and Sons.C.C. Holt, F. Modigliani, J.F. Muth, and H.A. Simon, Planning Production, Inventories, and Workforce, Prentice Hall, NJ.G.W. Plossi, and O.W. Wright, Production and Inventory Control, Prentice Hall, NJ.