The purpose of this course is to introduce students to the fundamental concepts and techniques of production and operations management for both service and manufacturing organizations. It will address the role of operations in relation to other functions and the methods to increase organizational effectiveness and efficiency. Topics covered include: product and service design, capacity planning, design of work systems, location planning and analysis, material requirements planning, supply-chain management, enterprise resource planning, inventory management, total quality management, Six Sigma, lean enterprise and kaizen approaches, aggregate planning, just-in-time systems, scheduling, and project planning. Also included are tools and processes used in operations decisions such as forecasting, breakeven analysis, and critical path method using available software.