

OM 581: Operations Management

This course is designed to provide the students with an understanding of the foundations of the operations functions in both manufacturing and service organizations. The course will analyze operations from both the strategic and operational perspectives and highlight the competitive advantages that operations can provide to the organization. Students will learn tradeoffs among different types of goods and services, operations systems in terms of key characteristics, management tasks, organization and control, and impact on the strategy and direction of the firm.

The students learn the strategic and tactical operations management issues and their relationship to the other functional areas of the firm. The key areas covered include; product/process design, facility location/layout, work place design, motion/time study techniques, forecasting demand, inventory systems, MRP, JIT, aggregate planning techniques, maintenance and safety. Each topic will be supplemented by a case study. Finally, students will choose a manufacturing/service organization to apply the concepts in designing and planning an improved operational system.

Course Contents:

- Importance of operation management, design of an effective operational system including a thorough understanding of various operational strategies and their implicative impact on the overall production and operation of a company
- Operations management and corporate profitability. Characteristics of a manufacturing system; Difference between manufacturing and service operations; Forecasting techniques including simulations and aggregate product planning for attaining TQM
- Japanese style of manufacturing utilizing techniques and trends for attaining quality assurance with the use of techniques such as “kanban”; Capacity planning, process design, facility layout and location
- Implementation of an effective operational strategy with a perspective emphasizing on the operational system of the future in the global market.

Text Books:

- Production and Operations Management: James D. Dilworth, McGraw Hill
- Modern Production/Operations Management: Elwood S. Buffa and Rakesh K. Sarin, 8th Edition, Wiley