

Production and Operations Management

Basic Information

Title: Production and Operations Management

Code: MGT202

Credit Hours: 3 C.H.

Prerequisite(s): MGT101

Classification: Compulsory Faculty Core

Course Description

This course emphasizes the concepts and practices of managing production and operations in contemporary organizations. This course provides an introduction to the field of production and operations management. It is designed to highlight the practical and applied techniques which can improve the organization's quality and productivity. The course draws upon the student's knowledge of accounting, science, mathematics, management and statistics.

Learning Objectives

- To understand the basic concepts and theories of the production management.
- To comprehend the operations management situations with greater confidence.
- To anticipate issues in production and operations processes they may face during their careers
- To expand individual knowledge of operations management principles and practices.
- To apply operations management concepts and their influence on business decisions.

Learning Outcomes

- Gaining knowledge about managing production processes.
- How to run operations effectively.
- Better understanding of modern production techniques.
- Better understanding of quality management.
- Management skills needed for the effective operations management.

Course Outline

Module/Topic
<p><u>Module 01: Introduction to Production and Operations Management</u></p> <p>Introduction Objectives Lesson 01: Introduction and Definitions Lesson 02: The Functional View of the Organization Lesson 03: The Process View of the Organization Lesson 04: The Transformation Model Lesson 05: The Volume-Variety Relationship Summary Assessment</p>
<p><u>Module 02: Capacity Planning</u></p> <p>Introduction Objectives Lesson 01: Terminologies and Measures Lesson 02: Demand Determination- Time series forecasting Lesson 03: Demand Determination- Errors in forecasting Lesson 04: Break-even analysis - linear case Lesson 05: Break-even analysis - Nonlinear case Summary Assessment</p>
<p><u>Module 03: Process Selection and Facility Layout</u></p> <p>Introduction Objectives Lesson 01: Product-Quantity and Pareto Analysis Lesson 02: Type of layouts and the objectives of Facility Layout Lesson 03: Qualitative and Quantitative Data for the Layouts Lesson 04: Construction and Evaluation of Layouts Lesson 05: Computerized Approaches To Facility Layout Summary Assessment</p>
<p><u>Module 04: Location Planning and Analysis</u></p> <p>Introduction Objectives Lesson 01: Least Cost Method Lesson 02: Dimensional analysis</p>

Module/Topic
<p>Lesson 03: Single facility Location Problem Lesson 04: Multi plant Location Summary Assessment</p>
<p><u>Module 05: Design Of Work System</u> Introduction Objectives Lesson 01: Definitions And Techniques Of Work Study Lesson 02: Method Study Procedures Lesson 03: Work Measurement Procedure Lesson 04: Activity Sampling Lesson 05: Design of Incentive Schemes Summary Assessment</p>
<p><u>Module 06: Competitiveness, Strategy And Productivity</u> Introduction Objectives Lesson 01: Performance Objectives Lesson 02: Operations Strategy Lesson 03: Definition Of Productivity Lesson 04: Calculations Of Total Productivity Lesson 05: Productivity In Service Industries Summary Assessment</p>
<p><u>Module 07: Introduction to Quality and Quality Control</u> Introduction Objectives Lesson 01: Definition of Quality Lesson 02: Quality of Service Industries Lesson 03: Acceptance Sampling Lesson 04: Control Charts for Variable and Attributes Lesson 05: Total Quality Management Summary Assessment</p>
<p><u>Module 08: Introduction to Material Management</u> Introduction Objectives Lesson 01: Purchasing Activities Functions and Procedures</p>

Module/Topic
Lesson 02: Inventory Analysis Lesson 03: Economic and Production Order Quantity Lesson 04: Just-In-Time Policy Basic Elements and Applications Summary Assessment

*Delivery mode of each module/topic will be determined by instructor and could differ from one semester to the other.