



Course: A Professional Certificate in Operations Management

Contact Hours: 24

Pre-requisite: None

Abstract

Participants will understand the role of Operations Management in a firm and learn how to structure and solve operations related problems. Persons will learn how operations strategy is linked to business strategy and how to set operations performance objectives. The course will empower participants with skills to address important aspects of business operations including demand and capacity management, inventory control, addressing productivity through job design and motivation, and quality management. Students are taught how to establish maintenance programs that can predict failures as well as how to configure processes, layouts and technology to achieve an efficient and effective operation. They will understand how to develop resource plans and schedules that will deliver products and services in a cost effective manner. Approaches to inventory and resource management will also be covered.

Target Audience

Persons interested in career advancement in this area and persons who have been recently promoted to Management positions, Semi Supervisory staff, Supervisory staff, Administrative Managers, Production Managers, Plant Managers and Operations Managers will all benefit from this training.

Learning Outcomes

On completion of this course, learners will be able to:

1. Understand the role and activities of operations management
2. Understand how Operations Strategy is linked to Business strategy and how to set operations Performance Objectives

3. Determine whether to make or buy, and how to use competencies for determining outsourcing strategy
4. Design the appropriate process and layout and select appropriate technology for operations
5. Manage the operations planning and control process
6. Practice effective capacity and demand management
7. Use basic methods for Forecasting and Inventory Control
8. Understand MRP, MRP II, ERP, JIT, lean manufacturing and their use and implications in Operations Management
9. Understand the causes of asset failure and set up preventive maintenance programs
10. Apply quality management principles and tools to ensure that goods and services provided meet and exceed specification.

Course Content

1. The role and activities of operations management

- The need for an operations manager with a broad business understanding and an appreciation of technology and its application in business
- Definition of operations management and the influences of operations management in the broader competitive environment

2. Outsourcing and Make or Buy Decisions

- Benefits of make or buy/outsourcing decisions associated with specific components and services
- Strategic outsourcing decisions in terms of span of control, core competencies, impact on other functions

3. Process design, layouts and technology

- Different types of process in manufacturing and service industries.
- Process layouts and work flows
- Design of optimum layouts and processes

4. Operations planning and control

- Strategies for the planning and management of capacity
- Appropriate strategies for managing and smoothing capacity.
- Resource plans and schedules that will deliver products and services in a cost effective manner

5. Forecasting and inventory control

- Basic techniques to forecast demand
- Inventory control methods

6. Inventory management philosophies – MRP, MRPII, ERP, JIT

- The mechanics of materials requirements planning (MRP, manufacturing resource planning (MRPII) and enterprise resource planning (ERP)
- The philosophy of just in time (JIT)

7. Failure prevention

- Asset and replacement strategies
- Different approaches to maintenance

8. Quality management and quality tools

- Total Quality Management (TQM)
- Strategies for Quality Management, Quality Control and Quality Assurance
- Tools and techniques for continuous improvement in the context of lean manufacturing