



Quality Management & Operational Excellence

Engineering Management and Operations Excellence

Course Introduction

This outline provides a comprehensive overview of Engineering Management and Operations Excellence, covering key aspects from foundational concepts to advanced techniques and future trends. It's designed to equip engineering managers with the knowledge and skills needed to effectively lead teams, manage projects, improve operations, and drive innovation in their organizations.

Target Audience

- Engineering Managers
- Operations Managers
- Project Managers
- Production Managers
- Supply Chain Managers
- Quality Control Managers
- Process Improvement Specialists
- Industrial Engineers
- Manufacturing Engineers
- Operations Directors
- Program Managers
- Maintenance Managers
- Continuous Improvement Managers
- Technical Leads
- Production Supervisors
- Business Analysts

Learning Objectives

- Developing a project plan for an engineering project

- Conducting a process improvement exercise
- Role-playing leadership scenarios
- Creating a technology roadmap for an engineering department

Course Outline

• Day 01

Foundations of Engineering Management

- Understand the role and responsibilities of an engineering manager
- Learn key leadership principles in engineering contexts
- Recognize the importance of aligning engineering goals with business objectives
- Introduction to Engineering Management
- Leadership in Engineering: Styles and Best Practices
- Strategic Planning and Goal Setting in Engineering
- Aligning Engineering Projects with Business Objectives
- Ethical Considerations in Engineering Management

• Day 02

Project Management for Engineers

- Learn essential project management methodologies and tools
- Understand how to effectively plan and execute engineering projects
- Develop skills in risk management and resource allocation
- Project Management Methodologies (e.g., Waterfall, Agile, Lean)
- Project Planning and Scheduling Techniques
- Resource Allocation and Management
- Risk Assessment and Mitigation in Engineering Projects
- Project Monitoring and Control

• Day 03

Operations Excellence and Process Improvement

- Understand principles of operations excellence
- Learn various process improvement methodologies
- Develop skills in implementing continuous improvement initiatives

- Introduction to Operations Excellence
- Lean Manufacturing Principles
- Six Sigma Methodology and Tools
- Total Quality Management (TQM)
- Implementing Continuous Improvement Programs
- Key Performance Indicators (KPIs) for Engineering Operations

• Day 04

Team Leadership and Talent Management

- Learn effective team leadership strategies for engineering teams
- Understand techniques for talent development and retention
- Develop skills in conflict resolution and team motivation
- Building and Leading High-Performance Engineering Teams
- Talent Acquisition and Retention Strategies
- Performance Management and Feedback
- Conflict Resolution in Engineering Teams
- Fostering Innovation and Creativity
- Managing Remote and Distributed Engineering Teams

• Day 05

Technology Management and Future Trends

- Understand the role of technology management in engineering
- Learn strategies for managing technological change and innovation
- Explore emerging trends and their impact on engineering management
- Technology Management in Engineering Organizations
- Managing Technological Change and Innovation
- Emerging Technologies and Their Impact on Engineering (e.g., AI, IoT, Robotics)
- Sustainability and Green Engineering Practices
- Future Trends in Engineering Management
- Course Review and Action Planning

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
April 27, 2025	May 1, 2025	5 days	4250.00 \$	KSA - Riyadh
July 7, 2025	July 11, 2025	5 days	4250.00 \$	UAE - Abu Dhabi
Aug. 17, 2025	Aug. 21, 2025	5 days	2150.00 \$	Virtual - Online
Oct. 27, 2025	Oct. 31, 2025	5 days	5950.00 \$	USA - Texas