

Course No. 1757

Engineering Leadership & Team Management Training Course

ENGINEERING MANAGEMENT
INDUSTRIAL ENGINEERING, MAINTENANCE & OPERATIONS

DURATION

5 Days

DELIVERY

Classroom



Course Overview

The Engineering Leadership & Team Management Training Course is specifically designed for experienced engineering professionals who are transitioning from technical expertise into broader engineering leadership and team management responsibilities. The program provides a practical leadership framework for senior engineers who must lead people, coordinate multidisciplinary teams, manage technical priorities, influence stakeholders, and deliver engineering objectives in complex industrial environments.

With particular relevance to the Oil & Gas industry, the course addresses the leadership challenges faced by senior mechanical engineers and engineering professionals working across engineering, maintenance, projects, operations, shutdowns, turnarounds, facilities, and technical services. It connects leadership principles with real engineering responsibilities, including technical decision-making, contractor coordination, safety expectations, operational pressure, project priorities, and cross-functional collaboration.

The program focuses on the transition from being a high-performing technical specialist to becoming an effective engineering leader. Participants will develop the ability to delegate effectively, establish accountability, coach engineers and technicians, manage performance, resolve conflicts, influence without relying solely on technical authority, and create a team environment that supports safety, quality, reliability, productivity, and continuous improvement.

Particular emphasis is placed on leading multidisciplinary and multicultural teams, managing technical disagreements, communicating with senior management and non-technical stakeholders, prioritizing engineering workloads, and making sound decisions under operational and project pressure. Participants will also explore how engineering leaders can develop technical talent and build succession capabilities within their teams.

Through engineering leadership case studies, Oil & Gas scenarios, team-management simulations, delegation exercises, conflict-resolution activities, performance-management practices, and a final leadership action plan, participants will develop practical capabilities to lead engineering teams with greater confidence, accountability, and organizational impact.

Objectives

- By the end of the course, participants will be able to:
- Develop an effective leadership approach for senior engineering and technical roles.
- Transition successfully from technical specialist to engineering team leader.
- Strengthen leadership presence, credibility, and professional influence.
- Apply effective delegation and accountability practices within engineering teams.
- Build and lead high-performing engineering teams.
- Manage multidisciplinary, multicultural, and cross-functional engineering teams.
- Improve communication between engineering, operations, maintenance, projects, HSE, procurement, and management.
- Apply effective approaches to coaching, mentoring, motivation, and employee development.
- Manage technical disagreements and workplace conflicts constructively.
- Improve engineering team performance through clear objectives, KPIs, feedback, and accountability.
- Make effective engineering decisions under operational, safety, cost, and time constraints.
- Develop future engineering leaders and strengthen technical succession capabilities.

Who Should Attend

This course is designed for Senior Mechanical Engineers, Lead Engineers, Principal Engineers, Engineering Supervisors, Engineering Managers, Maintenance Managers, Technical Services Managers, Project Engineers, and experienced engineering professionals preparing to assume broader leadership responsibilities.

It is particularly suitable for professionals with significant experience in the Oil & Gas, Petrochemical, Energy, Refining, Manufacturing, Utilities, and Industrial sectors, where engineering leaders are required to manage technical teams while balancing safety, reliability, production, cost, schedule, quality, and operational requirements.

The program is also valuable for experienced engineers who remain technically focused but increasingly coordinate engineers, technicians, contractors, consultants, vendors, and multidisciplinary stakeholders and therefore need to strengthen their people-management and

leadership capabilities.

Learning Outcomes

- By the end of the course, participants will be able to:
- Demonstrate confident and credible leadership within engineering environments.
- Distinguish between technical expertise and effective engineering leadership.
- Adapt leadership styles to different team members and operational situations.
- Establish clear expectations, responsibilities, and accountability within engineering teams.
- Delegate technical and managerial responsibilities effectively.
- Motivate and engage engineers and technical personnel.
- Coach and mentor junior and mid-level engineering professionals.
- Manage performance using clear objectives, KPIs, feedback, and development plans.
- Lead multidisciplinary engineering teams toward common objectives.
- Resolve technical and interpersonal conflicts constructively.
- Influence stakeholders across engineering, operations, maintenance, projects, and management.
- Communicate complex technical issues clearly to senior and non-technical stakeholders.
- Make effective decisions under safety, operational, commercial, and time pressures.
- Build a practical leadership development and team-performance improvement plan.

Course Outline

DAY 01

From Senior Engineer to Engineering Leader

- The transition from technical expert to engineering leader
- The changing role of the senior and lead engineer
- Engineering leadership versus technical authority
- Leadership credibility and professional presence
- Leadership styles and situational leadership
- Understanding individual strengths and leadership gaps
- Building trust and credibility within technical teams

DAY 01 — CONTINUED

- Establishing leadership expectations and team standards
- Leading with safety, integrity, accountability, and professionalism

PRACTICAL APPLICATION

Leadership self-assessment and development of a personal engineering leadership profile

DAY 02

Building & Managing High-Performance Engineering Teams

- Characteristics of high-performing engineering teams
- Building trust, accountability, and collaboration
- Defining engineering roles and responsibilities
- Delegation and effective workload distribution
- Setting objectives and performance expectations
- Managing engineers, technicians, contractors, and technical specialists
- Leading multidisciplinary and multicultural teams
- Managing competing technical and operational priorities
- Team motivation and employee engagement
- Coaching, mentoring, and developing engineering talent

PRACTICAL APPLICATION

Design a high-performance structure for an engineering team in an Oil & Gas environment

DAY 03

Communication, Influence & Conflict Management

- Effective communication for engineering leaders
- Communicating technical issues to senior management
- Communicating with operations, maintenance, HSE, projects, and other functions
- Influencing without relying on formal authority
- Stakeholder management and relationship building

DAY 03 — CONTINUED

- Managing technical disagreements
- Understanding sources of conflict within engineering teams
- Conflict resolution and constructive negotiation
- Giving and receiving effective feedback
- Managing difficult conversations with engineers and technical personnel

PRACTICAL APPLICATION

Simulate a multidisciplinary engineering conflict and develop a leadership-based resolution strategy

DAY 04

Engineering Performance, Decision-Making & Operational Leadership

- Engineering performance management
- Establishing meaningful engineering KPIs
- Monitoring team productivity, quality, reliability, and delivery
- Performance reviews and corrective feedback
- Decision-making in complex engineering environments
- Risk-based engineering decision-making
- Balancing safety, reliability, cost, schedule, and operational requirements
- Managing engineering priorities under pressure
- Root-cause thinking and continuous improvement
- Leading engineering teams during projects, shutdowns, turnarounds, and operational challenges

PRACTICAL APPLICATION

Analyze a high-pressure Oil & Gas engineering scenario and make leadership decisions balancing safety, technical, operational, cost, and schedule considerations

DAY 05

Strategic Engineering Leadership & Talent Development

- Building a long-term engineering leadership strategy
- Developing future engineering leaders
- Succession planning for critical technical positions
- Knowledge transfer and technical capability development
- Building a culture of accountability and continuous improvement
- Strengthening collaboration between engineering and business functions
- Leading organizational and technical change
- Engineering leadership during major projects and transformation
- Personal leadership effectiveness and continuous development
- Creating an engineering leadership action plan

FINAL WORKSHOP

Develop a comprehensive Engineering Leadership & Team Management Action Plan for an Oil & Gas engineering environment covering leadership priorities, team structure, delegation, accountability, communication, stakeholder management, performance KPIs, conflict management, coaching, talent development, succession, decision-making, and continuous improvement.

Register or Request More Information

Course page: <https://quest-training.com/courses/engineering-leadership-team-management-training-course>

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