

MANAGEMENT & LEADERSHIP SKILLS FOR ENGINEERS AND SCIENCE BASED PROFESSIONALS



GENTEX[®]
TRAINING CENTER



Introduction

Management & Leadership Skills for Engineers and Science Based Professionals Training Course helps technical experts become effective managers and leaders without losing the analytical strength that earned them their reputation. Engineers and scientists often move into management on technical merit, then discover that motivating people, delegating, and handling conflict require a different skill set. This program bridges that transition. It covers leadership style, communication, delegation, performance management, and team development. As a result, participants learn to lead technical teams with credibility and confidence. Furthermore, the course covers project leadership, decision-making, and influencing stakeholders outside their discipline.

Management & Leadership Skills for Engineers and Science Based Professionals Course Objectives

- Apply the transformational and situational leadership models in technical settings.
- Build self-awareness through emotional intelligence frameworks.
- Communicate technical information clearly to non-technical audiences.
- Structure briefings with the Pyramid Principle and SCQA framework.
- Delegate using the five levels of delegation and the RACI matrix.
- Set objectives with SMART criteria and track technical KPIs.
- Manage performance with appraisal conversations and improvement plans.
- Coach technical staff using the GROW model.
- Give feedback with the SBI and DESC frameworks.
- Lead multidisciplinary projects and manage conflicts constructively.

Course Methodology

- Facilitated sessions built around real engineering management situations.



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- Self-assessment of leadership style and technical-management habits.
- Role-play of briefings, feedback, and appraisal conversations.
- Group exercises in delegation and objective setting.
- Case studies from engineering, R&D, and operations environments.
- Simulation of project delivery and team development challenges.
- Peer feedback, reflection, and a personal leadership action plan.

Who Should Take This Course

- Engineers and scientists moving into management.
- Technical team leaders and supervisors.
- R&D and laboratory managers.
- Project engineers and technical program managers.
- Quality, design, and process engineering leads.
- Technical specialists managing multidisciplinary teams.
- High-potential technical staff preparing for leadership.

Management & Leadership Skills for Engineers and Science Based Professionals Course Outlines

Day 1: From Technical Expert to Leader

- What changes when an engineer becomes a manager.
- Transformational and situational leadership models.
- Emotional intelligence and the four domains.
- Leading former peers and experienced technicians.
- Managing your own stress, bias, and reactions.



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- Common pitfalls for new technical managers.
- Workshop: leadership style self-assessment.

Day 2: Communication for Technical Professionals

- Communicating with technical and non-technical audiences.
- The SCQA framework: situation, complication, question, answer.
- Structuring briefings with the Pyramid Principle.
- Explaining risk, uncertainty, and trade-offs simply.
- Active listening and questioning in technical debates.
- Written communication: reports, memos, and specifications.
- Drill: a five-minute technical briefing to executives.

Day 3: Delegation, Objectives, and Performance

- Why delegation fails in technical teams.
- The five levels of delegation and task ownership.
- Setting SMART objectives with clear success criteria.
- Tracking technical KPIs and project milestones.
- Accountability with the RACI matrix.
- Conducting appraisals and performance reviews.
- Role-play: a performance and development conversation.

Day 4: Leading Teams, Projects, and Influence

- Team development stages and the Tuckman model.
- Leading multidisciplinary and cross-functional teams.
- Running design reviews and technical meetings.



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- Managing conflict with the Thomas-Kilmann model.
- Coaching technical staff with the GROW model.
- Influencing stakeholders outside your discipline.
- Simulation: resolving a technical team conflict.

Day 5: Decision-Making, Change, and Leadership Growth

- Structured decision-making with decision matrices.
- Risk management with the five-step process.
- Leading change with Kotter's eight steps and the ADKAR model.
- Building credibility with senior management.
- Developing successors and building team depth.
- Creating a personal leadership development plan.
- Capstone: presenting a technical leadership roadmap.

Conclusion

By successfully completing Management & Leadership Skills for Engineers and Science Based Professionals Training Course, participants will have acquired the knowledge to lead technical teams confidently, communicate complex work clearly, delegate with accountability, manage performance fairly, coach and develop their staff, and handle conflict and change constructively. They will also understand how to influence decision-makers beyond their technical field. Gentex Training Center delivers this program through applied workshops and expert facilitation, helping technical professionals lead as effectively as they analyse.





FAQs for the Management & Leadership Skills for Engineers and Science Based Professionals course

Q1 What is the "Management & Leadership Skills for Engineers and Science Based Professionals" course about?

It is a training program that helps technical experts become effective managers and leaders. It covers leadership style, technical communication, delegation, performance management, team leadership, conflict handling, and change leadership.

Q2 What are the key benefits of the "Management & Leadership Skills for Engineers and Science Based Professionals" course?

Participants gain confidence leading former peers and experienced specialists, clearer communication with executives, and practical tools for delegation and performance conversations. Organizations benefit from stronger technical leadership, faster project delivery, better succession, and fewer people problems in technical teams.

Q3 What skills will I gain from the "Management & Leadership Skills for Engineers and Science Based Professionals" course?

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Participants build leadership style and self-awareness, technical communication and executive briefing, delegation, objective setting, and performance management, and team leadership, conflict management, and change leadership.

Q4 What tools, methods, or standards are covered in the "Management & Leadership Skills for Engineers and Science Based Professionals" course?

The course covers transformational and situational leadership models, emotional intelligence frameworks, the SCQA framework, the Pyramid Principle, the five levels of delegation, SMART objectives, the RACI matrix, the Tuckman team stages, the Thomas-Kilmann conflict model, the GROW coaching model, the SBI and DESC feedback frameworks, decision matrices, the five-step risk management process, Kotter's eight steps, and the ADKAR model.

Q5 How is the "Management & Leadership Skills for Engineers and Science Based Professionals" course applied in real-world practice?

Learners apply it by briefing executives with clear recommendations, delegating technical tasks with defined ownership, setting and tracking measurable objectives, running appraisal and development conversations, coaching staff through technical obstacles, and leading project change with a documented plan.

