



Quality Management & Operational Excellence

Quality Control and Assurance in Engineering

Course Introduction

This comprehensive 5-day course focuses on quality control and assurance principles and practices in engineering. It covers fundamental quality concepts, statistical process control, quality management systems and standards, advanced quality tools, and strategies for fostering a quality-focused culture. Participants will gain practical skills in implementing and managing quality processes in engineering environments.

Target Audience

- Quality & Process Engineers – Ensuring product and process quality.
- Manufacturing & Operations Managers – Maintaining production standards.
- R&D and Design Engineers – Integrating quality into product development.
- Supply Chain & Procurement Professionals – Managing supplier quality.
- Compliance & Regulatory Officers – Ensuring adherence to standards.

Learning Objectives

- Understand the importance of quality in engineering and key quality management concepts
- Master Statistical Process Control (SPC) techniques and their application
- Gain knowledge of quality management systems and standards (e.g., ISO 9001)
- Apply advanced quality tools like Failure Mode and Effects Analysis (FMEA) and Design of Experiments (DOE)
- Implement Six Sigma methodologies for quality improvement
- Develop strategies for creating and maintaining a quality-focused organizational culture
- Create a comprehensive quality improvement plan for engineering operations

Course Outline

• 01 DAY ONE

Fundamentals of Quality Control and Assurance Objectives:

- Understand the importance of quality in engineering
- Learn key quality management concepts and principles
- Differentiate between quality control and quality assurance

• 02 DAY TWO

Statistical Process Control (SPC) Objectives:

- Understand the principles of SPC
- Learn to create and interpret control charts
- Apply SPC tools in real-world scenarios

• 03 DAY THREE

Quality Management Systems and Standards Objectives:

- Understand ISO 9001 requirements
- Learn about other relevant quality standards (e.g., AS9100, IATF 16949)
- Develop skills for implementing and auditing quality management systems

• 04 DAY FOUR

Advanced Quality Tools and Techniques Objectives:

- Master Failure Mode and Effects Analysis (FMEA)
- Apply Design of Experiments (DOE) in quality improvement
- Understand and implement Six Sigma methodologies

• 05 DAY FIVE

Continuous Improvement and Quality Culture Objectives:

- Develop strategies for fostering a quality-focused culture
- Implement continuous improvement initiatives
- Create a quality improvement plan for your organization

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
May 26, 2025	May 30, 2025	5 days	4250.00 \$	UAE - Abu Dhabi
Sept. 29, 2025	Oct. 3, 2025	5 days	5950.00 \$	Switzerland - Zurich
Nov. 2, 2025	Nov. 6, 2025	5 days	4250.00 \$	KSA - Riyadh