MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

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ASQ INTRODUCTION TO QUALITY ENGINEERING

"Build a Strong Foundation in Quality Engineering Principles and Practices for Operational Excellence"

Schedule

Venue (InHouse)	Fees
At Your Organization Premises	Ask For The Quotation

Introduction

Quality engineering is at the heart of every successful manufacturing and service operation. It ensures that products, processes, and systems meet customer expectations and regulatory requirements through a systematic approach to design, control, and continuous improvement.

The ASQ Introduction to Quality Engineering course provides participants with a solid foundation in the core concepts, methodologies, and tools used in quality assurance and process improvement. It introduces the principles of quality management, measurement techniques, data analysis, and problem-solving strategies that underpin modern quality engineering practices.

This course is ideal for professionals new to the field or those seeking to understand how quality engineering supports business excellence and customer satisfaction. With a blend of theoretical knowledge and hands-on learning, participants will develop the essential skills to contribute effectively to quality initiatives within their organizations.

Objectives

By the end of this course, participants will be able to:

- Understand the basic principles and functions of quality engineering.
- Explain the role of quality in product design, manufacturing, and service delivery.
- Identify and apply key quality tools and techniques.
- Understand statistical concepts and their applications in process control.
- Contribute to quality assurance, auditing, and improvement activities.
- Recognize how quality engineering aligns with organizational goals and customer needs.
- Build a foundation for advanced ASQ certifications such as CQE, CQA, and Six Sigma.

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Why Attend

This course provides the perfect entry point into the field of quality engineering. Whether you are beginning your career in quality or transitioning from another discipline, you'll gain practical knowledge to improve processes, prevent defects, and enhance performance.

The course also serves as an excellent preparation for individuals who plan to pursue professional certifications in quality management and engineering offered by ASQ.

Target Audience

This course is suitable for:

- New Quality Engineers and Technicians
- Process and Manufacturing Engineers
- Production Supervisors and Operators
- Quality Assurance and Control Personnel
- Project and Operations Managers
- Professionals planning to pursue ASQ certification (CQE, CQA, CSSGB, etc.)
- Anyone interested in building a foundation in quality engineering concepts

Individual Benefits

- Gain a clear understanding of fundamental quality concepts and practices.
- Learn to identify and solve basic quality and process-related problems.
- Develop analytical and process evaluation skills.
- Enhance your ability to contribute to team-based quality improvement efforts.
- Build confidence and readiness for advanced quality certifications.
- Strengthen your professional profile and career growth potential.

Organizational Benefits

- Promote a culture of quality and continuous improvement.
- Reduce process variation and operational waste.
- Enhance product and service quality through systematic control.
- Improve productivity and customer satisfaction.
- Develop a knowledgeable workforce capable of applying quality tools.
- Support organizational readiness for quality audits and certifications.

Instructional Methodology

This course combines interactive learning and practical exercises, including:

- Instructor-led lectures and discussions
- Real-world case studies and examples
- Group workshops on problem-solving and process improvement
- Hands-on exercises using basic quality tools
- Quizzes and assessments to reinforce learning
- Q&A and feedback sessions for concept clarity

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Course Outline

Module 1: Introduction to Quality Engineering

- Definition, scope, and evolution of quality engineering
- Role of quality in business and manufacturing
- ASQ’s perspective on quality and process excellence

Module 2: Principles of Quality Management

- Quality philosophies and pioneers (Deming, Juran, Crosby)
- Total Quality Management (TQM) concepts
- Quality policies, objectives, and systems (ISO 9001 overview)

Module 3: Quality Tools and Techniques

- Introduction to basic quality tools (Pareto chart, cause-and-effect diagram, check sheet, histogram, control chart, flowchart, scatter diagram)
- Problem-solving using the PDCA and DMAIC approaches
- Root cause analysis and corrective actions

Module 4: Process Control and Improvement

- Process mapping and workflow analysis
- Understanding variation and process capability
- Statistical Process Control (SPC) fundamentals
- Continuous improvement and Kaizen principles

Module 5: Data Collection and Analysis

- Types of data and measurement systems
- Sampling techniques and data accuracy
- Introduction to descriptive statistics and data interpretation

Module 6: Product and Process Design Concepts

- Design for quality and reliability basics
- Prevention vs. detection strategies
- Failure Modes and Effects Analysis (FMEA) introduction

Module 7: Auditing and Quality Assurance Fundamentals

- Quality audits and compliance requirements
- Supplier quality management and inspection
- Documentation and reporting best practices

Module 8: Human Factors and Teamwork in Quality

- Building a quality culture within the organization
- Effective communication and teamwork in quality initiatives
- Problem-solving teams and leadership roles

Module 9: Emerging Trends in Quality Engineering

- Digital transformation and data analytics in quality
- Quality 4.0 and smart manufacturing systems
- Sustainability and environmental quality management

Module 10: Final Assessment and Review

- Review of key course concepts
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Practical application exercises

- Preparation guidance for further ASQ certifications

Certification

Upon successful completion, participants will receive a Certificate of Completion – ASQ Introduction to Quality Engineering, recognizing their foundational knowledge in quality engineering principles and practices.

This certification establishes a strong base for professionals aiming to advance toward higher-level ASQ certifications, including Certified Quality Engineer (CQE), Certified Quality Auditor (CQA), and Lean Six Sigma programs. It demonstrates the participant's commitment to quality excellence and professional development in the field of engineering and process improvement.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation's unique goals.

In-House / Customized Training Interested in running this course for your team? Please contact us:	TEL: **+601116373203**	EMAIL: **info@mawaevents.net**

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