

# **Quality Manager Course**

An international online education program providing the professional knowledge and skills needed for the leadership role in quality and organizational excellence

The Quality Manager Course is a managerial education focusing on quality management, continual improvements towards excellence, and customer-oriented development of an organization. The participants will learn the strategies, methods, and tools needed to achieve good results, satisfied customers, and effective processes. The course gives a deep understanding of all important areas of quality management. It covers the knowledge that is critical for persons that intend to develop, implement and lead a quality and improvement program in an organization. The Quality Manager Course will also give the participants a personal network and create new opportunities for future development. The course suits all kinds of organizations, both private and public.

### **Purpose**

This course will give the participants the knowledge necessary for leading effective quality initiatives in both companies and public organizations. The Quality Manager Course is developed to contain the knowledge needed by individuals working as quality managers but is also very relevant to anyone that wants to have a deep understanding of total quality management (TQM) and organizational excellence. This course aligns with ASQ Body of Knowledge regarding Manager of Quality and Organizational Excellence.

### **Background to the course**

Sandholm Associates Quality Manager Course was introduced in 1989 in Sweden by Lennart Sandholm and Joseph Juran. The course has its roots all the way back to 1971 when Sandholm Associates was founded. During the 1970s and 1980s, ten- and twenty-week courses in Total Quality Management were given yearly by Sandholm Associates in more than 40 different countries sponsored by the United Nations. The latest international version of the Quality Manager Course is now available online from Sandholm Excellence Center in Portugal.

## Who should take this course?

Those who work or will work as quality managers. This course also suits those leading or participating in excellence or business development programs.

## Previous knowledge

No specific previous knowledge is needed to take part in this education program

#### **General information**

The course is conducted in real-time with online lectures, group discussions in break-out rooms, and workshops. Parallel to the course, projects are carried out by the participants in smaller groups with the purpose of developing competence and exchanging experiences.

The Quality Manager Course is led by Sandholm Associates' experienced teachers. The head of the course is Dr Lars Sörqvist. The course is given in English.

After fulfilling the course requirements, the participants will receive a Sandholm Associates International Quality Manager Diploma.

#### Length of the course

Total 20 days over a time of 10 months.

## **Documentation**

Participants will receive relevant course documentation that will be useful references for future work.

#### Location of the training

This education is online through Zoom and Sandholm Excellence Center Learning Hub (LMS).

# Course schedule - Quality Manager Course

# Day 1: Quality management

- Introduction to the training program
- Defining and understanding quality
- Quality management, customer focus, and excellence
- Stability in change quality assurance vs. quality improvements
- Quality development and improvements in a fast-changing world
- The Agile organization
- Poor quality costs and strategic effects of quality
- Quality and sustainability
- History and background to quality management

# Day 2: Customer orientation and business excellence

- The customer-oriented organization
- · Building customer relations and achieving satisfaction
- · Quality, customers, and customer needs
- · Partnership and cooperation with customers
- Business excellence
- Principles and criteria for excellence and world-class organizations
- Learning from business excellence model EFQM, MBNQA, SIQ

# Day 3: Management of improvements

- Development of quality through improvements
- · Leading through continual improvements
- Improvement management, strategic planning, and Hoshin Kanri
- · Improvement process and infrastructure for improvements
- Roles, responsibilities, and competence of improvement work
- Problems solving with DMAIC, PDSA, and 8D
- Introduction to Six Sigma and Lean
- Continual improvements and Kaizen
- Project management for improvement projects

# Day 4: Quality assurance and quality management systems (QMS)

- · Quality assurance and quality planning
- · Need for standardization and structure
- Quality management systems (QMS)
- · Certification and ISO 9001
- · Development of an effective QMS
- · Quality policy and goals
- · Management review

# Day 5: Process orientation and process management

- · Process development and handling of cross-functional operations
- Defining and mapping processes
- · Analyzing and developing processes
- Creating a lean process and flow effectiveness
- · Process management and cross-functional management
- Process ownership
- · Process organizations

# Day 6 and 7: Leadership for quality and good leadership

- Management responsibility and the role of the manager in quality
- Good leadership based on values respect for people, customer focus, and continual improvements
- View of man, trust, and responsibility
- · Communication, dialog, and feedback
- Management commitment and involvement
- Visualization of quality
- Executive management
- Tactics to build management commitment

# Day 8: Building a quality culture

- Employees and quality culture
- · Development of good employeeship
- System levels individual, group, and organization
- · Values, participation, and responsibility
- People's role and relation to change and improvements
- · Leading and managing change
- Group dynamics and development of effective teams
- Knowledge management, training, and competence
- Use of train-the-trainer material

# Day 9 and 10: Measuring and following-up quality

- · Development of an effective business measurement system
- Traditional measures of quality
- · Customer satisfaction, loyalty, NPS, and other customer-related information
- · Suggestions and other information from employees
- · Benchmarking and learning from others
- Risk management and risk analysis FMEA and What If
- · Cost of poor quality (CPQ) measurements

## **Day 11: Auditing quality**

- Development of an effective audit program
- · Planning quality audits
- Audit methodology
- · Process and performance audits
- Interview techniques that create trust and high value
- · Identifying and reporting non-conformities
- Handling and follow-up corrective actions

# Day 12 and 13: Data analytics and applied statistics in quality work

- Introduction to statistical thinking
- Understanding variations and distributions
- Introduction to Minitab and applied computer-based data analytics
- · Stability and control charts
- · Process capability studies
- · Correlation and regression analysis
- · Introduction to advances statistical methodology
- Measurement system analysis (MSA and Gage R&R)
- Using machine learning (ML) and artificial intelligence (AI) to develop quality and solve problems
- · Quality inspection and sampling



# Day 14: Quality in and through digitalization and new technology

- Quality and digitalization Quality 4.0
- The role of IT and new technology in the development of quality
- The smart and agile future QMS
- Quality assurance, connectivity, and IoT
- New digital tools in the quality tool-box ML & Al
- Quality in digitalization and quality assurance of new technology
- · Cost of poor digitalization
- The important role of quality in IT development

# Day 15 and 16: Continual improvements and root-cause analysis

- Define a problem and set a correct scope
- · Problem statement, purpose, and goals
- · Development of business cases
- Customer (VoC) and process (SIPOC) perspective on improvements
- Data collection and measurements
- Root cause analysis and identification of solutions
- Basic tools for improvement QC tools
- The experimental approach to problem-solving evidence-based solutions
- Implementing, controlling, and following up on solutions
- · Leading and managing change
- Monitoring and reporting improvements

## Day 17: Process development and Lean

- Philosophies and tools of Lean
- Development of effective processes and operational excellence with Lean
- Customer value and waste
- Value stream mapping and other tools used to understand the actual situation
- Principles of developing an effective process plow Flow, Pull, Kanban, SMED, Lot-size, and Balance
- Designing and building a Lean production system
- System tools Standard work, 5S, Poka Yoke, and Andon
- · Daily management and Kaizen
- Lean thinking and Lean management

## Day 18: Quality in new product development and innovation

- Building quality into products
- · Role of marketing and sales in quality
- · Requirement engineering, understanding the voice of the customer, and quality
- Design for Six Sigma (DFSS) and important quality tools in R&D
- · Reliability and robust design
- Effective new product development Lean Product Development (LPD)
- Quality in new technology
- The role of innovation in quality



# Day 19: Supplier quality

- · Supply chain management
- · Cross-organizational relations and relationship-based contracts
- Lean thinking is supplier relations
- Supplier strategies
- · Classification of suppliers
- · Identifying and selecting good suppliers
- Supplier performance and improvement
- Supplier certification and partnerships

# Day 20: Acting as a quality professional

- How to succeed in the quality manager role
- Strategic and tactic plan for quality management
- Building an effective quality organization
- · Leading the quality function
- Education project presentation
- Course examination