

Cost of Quality: Finance for Continuous Improvement

(Formerly "Quality Cost Principles")
Provided by ASQ

Surveys show a vast majority of companies either overlook or are unaware of the concept of Cost of Quality (CoQ). Quality costs (actual plus hidden) can amount to a large proportion of sales often 25% or more. Successfully use CoQ to strategically manage your improvement projects with bottom-line results.

Improve customer satisfaction, competitiveness, and financial performance by understanding the link between quality improvement and profits. Learn to select, manage, and strategically use CoQ improvement projects within your organization.

You'll get the information you need to:

- Manage projects within your respective organization
- Measure point-in-time CoQ by establishing a baseline
- Prove the value of CoQ to leadership
- Apply the concepts of CoQ and continuous quality improvement within your projects or organization.

Objective

- Identify and apply key Cost of Quality (CoQ) principles, including critical success factors
- Apply CoQ to different types of improvement initiatives and perform calculations regarding supplier CoQ
- See how project-based and systematic quality approaches can support and benefit each other
- Use CoQ data collection and analysis strategies to meet business goals of reducing risks, lowering costs, and other measures
- Identify key change leadership principles that can help enable CoQ implementations

Prerequisites

You should have some background in quality principles and terminologies. You should also know something about cost allocation techniques, methods of estimating the value of partially processed product, and the transactional processes within your organization.

Who Should Attend

This course was designed for professionals seeking to initiate cost based measurement or improvement programs in their respective organizations or anyone who wants to add to their knowledge of effective measurement systems and quality standards.

Course Content

- Foundations of CoQ
- Applying CoQ
- Blending Project-based and Systematic Quality Approaches
- Collecting and Analyzing CoQ Data
- Using CoQ for Continuous Improvement

Course length: 2 days

Fee: \$6930

Minimum attendees: 6

*Travel expense for the ASQ Instructor is additional

Introduction to Quality Management – Revised

Provided by ASQ

This course provides comprehensive review and working knowledge of key elements represented by ASQ's Certified Manager of Quality/Organizational Excellence and Certified Quality Improvement Associate Bodies of Knowledge and the Malcolm Baldrige National Quality Award performance excellence criteria. The course is designed to provide participants with the QM principles, techniques, tools and skills for on-the-job application useful in a wide range of businesses and organizations—service, manufacturing, government, education, healthcare, etc. The course is taught using adult learning principles including Discovery Learning techniques and a Learning and Action Planning Log to maximize content retention and usage. Although not designed as a certification refresher, this course will help seasoned quality professionals brush up on the key elements of QM.

Objective

- Apply QM concepts and tools to create value the first week back on the job
- Compare and contrast the Baldrige model for business excellence vs. ISO 9000:2000
- Be able to understand a strategic planning and deployment process for improvement, performing a SWOT analysis and reviewing current models/tools such as balanced scorecard, scenario planning and Hoshin planning/policy
- Develop aligned goals, long- and short-term objectives and plans, for their functions
- Understand current practices in customer and market requirement definition, satisfaction/retention, and product and process design, including completing a QFD relationship matrix
- Know when and how to use fundamental QC and QA elements to control, correct and improve processes and products. Includes the use of a problem solving process and quality tools, control plans and charts, process capability, audits, supplier quality management, documentation, calibration, and measurement quality

Who Should Attend

- Professionals who face the challenges of helping their organization focus and deploy common goals, strategies, plans and customer requirements
- Directors, managers, supervisors and team leaders who are required to apply a fact-based design, control and accelerated-improvement process that achieves performance results
- New and experienced people in quality who want to use the QM framework and proven approaches and tools to be more effective on the job

Course Content

- Introduction and basics
- Leadership, organizational and HR issues
- Strategic planning
- Customer and market focus
- Information and analysis
- Process management

Course length: 5 days

Fee: \$11,376

Minimum attendees: 6

*Travel expense for the ASQ Instructor is additional

ISO 9001:2000 Internal Process Auditing

Provided by ASQ

This three day course provides auditor candidates with an understanding of the auditing process. Learn interviewing techniques, how to plan and execute and audit, including how to properly write reports and follow-up on findings. This course is structured to include role-playing, workshops and a shop-floor audit. Participants will gain the skill and knowledge necessary to effectively carry out internal process audits of their company's quality management system.

Objective

- Develop an understanding of the internal audit system from a process auditing perspective.
- Learn how to successfully conduct internal audits of a quality system.
- Learn the eight Quality Management Principles – new philosophy.
- Review the ISO 9001:2000 standard – understand customer satisfaction and continual improvement.
- Identify the differences from the ISO 9000:1994 to ISO 9000:2000 utilizing current documentation.
- Learn the principles and practices of auditing, including interview techniques, writing effective reports and follow up findings.

Who Should Attend

This course is designed for people designated to manage and participate in the internal audit process.

Course Content

Day One

- Introduction
- Objectives
- Quality Management System – 2000
- Hierarchy of Documentation
- Understanding the ISO 9001 Standard
- 1994 vs. 2000 Changes
- The Language
- Record Requirements
- Discussion

Day Two

- Complete the Review of the Standard
- Audit Phases
- Process Auditing

Day Three

- Conduct a "Live" Audit

Course length: 3 days

Fee: \$6644/6

\$6697/7

\$7305/8

\$7636/9

\$7966/10

Minimum attendees: 6

*Travel Expense for the ASQ Instructor is additional

ISO 9001:2000 Lead Auditor Training (RABQSA)

Provided by ASQ

To become a lead auditor: If you satisfactorily achieve the required pass points for the written examination and the required minimum grading for the continuous assessment, you will receive a "Successful Completion" certificate to demonstrate that you have met the training requirement for individual QMS auditor certification by the RABQSA. Before becoming a Lead Auditor, there are also professional requirements that must be met, including conducting a number of verifiable audits, educational requirements, workplace experience and sponsorship.

This RABQSA certified course meets the training requirements for RABQSA Quality Management Systems Lead Auditors, Auditors and Provisional Auditors. This course makes extensive use of student activities and case studies to help students fully understand the requirements of auditing to the ISO 9001:2000 standard. Lecture time is held to a minimum providing students time to learn and then practice their newly acquired skills in real-life audit situations that assure that students are prepared to conduct effective audits.

Objective

- Fully understand the requirements of ISO 9001:2000
- Understand and be able to apply the proper interpretation of the standard in actual audit situations
- Know how to tailor an audit interview based on the requirements of the standard and obtain audit evidence from this interview.
- Know how to plan and conduct effective audits.
- Know how to manage the audit process, including opening meetings, auditing, closing meetings and reporting.

Bonus: The ANSI/ISO/ASQ Q9001:2000 Quality Management Standard Requirements are included with this course.

Who Should Attend

All individuals who want to become RABQSA-certified auditors and those assisting their organizations toward ISO 9000 registration, particularly in manufacturing and service organizations. This course will benefit Quality directors, managers, engineers, auditors, ISO coordinators, directors of international ventures, laboratory quality professionals and anyone responsible for leading an audit.

Course Content

- Introduction
- Terminology and definitions
- Background history and rationale of quality management
- Intro to Q9000/ISO 9000
- Analysis of the contents of Q9000/ISO 9000
- Analyzing audit findings
- Audit to ISO 9000 and quality manual
- RABQSA Certification Program
- QMS auditor qualifications
- Roles and responsibilities of auditors
- The audit checklist
- Preparation for an audit
- Conducting an audit and compiling the findings
- Documentation in the quality system
- Planning and conducting audits
- The closing meeting and the audit report
- The closing meeting

Course length: 5 days

Fee: \$8847/5

\$9068/6

\$9288/7

\$9508/8

Minimum attendees: 5

*Travel expense for the ASQ Instructor is additional

Mistake – Proofing

Provided by ASQ

Preventing mistakes before they happen is one of the simplest methods that can help a company reach its quality goals, improve efficiency, and decrease costs.

This one-day mistake-proofing course is highly effective in helping organizations reduce and even eliminate product defects. The use of a variety of simple, usually inexpensive devices, can keep errors from eroding your company's profits. This course teaches you how to implement a mistake-proofing system, get management on board, and involve your production team in the process. Not only will you learn how and why this system works, but you will also learn to solve practice problems to help illustrate how mistake-proofing can help you in your particular situation. Learn how to promote the ability to provide problem-solving support—regardless of process involvement or expertise.

Objective

- Gain knowledge in applying mistake proofing techniques helpful in assisting their company achieve zero defects process quality
- Learn practical methods to slash the high cost of non-quality
- Gain a working knowledge of the shop floor tools used achieve zero defects
- Implement the Seven Criteria of Mistake-Proofing making it “bulletproof”
- Gain organizational leadership through use of the Five Mistake-Proofing Imperatives
- Be able to rate the quality of mistake-proofing devices with the Ten Point Scoring Technique
- Learn master tips and techniques developed by the instructor to effectively implement mistake-proofing

Who Should Attend

This course is designed for executives, managers, supervisors and engineers.

Course Content

- Show technical results which have been achieved in seven major companies
- Technical breakout group participation
- Technical demonstration of Mistake-Proofing as the only way to achieve defect-free product
- Technical reasons paradigms prevent achieving zero defects
- Four key points to overcome past paradigms
- Technical application of 0.99 quality yield
- Technical understanding of the human element in manufacturing quality
- Categorization of error sources
- Technical grounding in differences between errors and mistakes
- Categorization of error sources
- Technical grounding in differences between errors and mistakes
- The differentiation of defects, mistakes and errors
- Error detection results without technical aids
- Technical application of 0.999 quality yield
- Shigeo Shingo technical explanation of poka yoke theory
- Demonstration of traditional SPC as a trailing indicator
- Traditional quality system self checks and successive checks
- Explanation of lot testing, SPC or sampling inspection presume some level of acceptable defects

Course length: 1 day

Fee: \$6930

Minimum attendees: 6

*Travel expense for the ASQ Instructor is additional

Principle of Lean Enterprise Philosophies Applied to Health Care

PROVIDED IN PARTNERSHIP WITH CAMT

Hospitals today face a great challenge. Reimbursement levels are declining, costs are climbing, and revenues are falling and qualified staff are in short supply. The first reaction is to use traditional cost cutting methods. Hospitals have been forced to repeatedly implement cost cutting measures to stay profitable. Although these efforts may allow hospitals to keep pace with falling revenues and climbing costs, traditional cost cutting is not sufficient to get ahead of this cycle. As many manufacturing companies have been forced to do to survive, hospitals can learn to establish systems that allow people to follow processes that maintain low costs while serving a higher volume of patients.

Objective

The goal of a Lean Enterprise is to establish processes that allow people to execute them flawlessly every day. A process is simply a set of defined and related tasks that are performed to achieve a defined outcome. Lean Health Care is a system that allows you to develop, improve, and sustain superb processes. Lean Health Care achieves results rapidly by allowing workers to focus the improvement attention on the actual place where the value is created using a team-based approach to change.

- Balance workload to customer demand (Takt Time & Cycle Time)
- Connect value added processes (Process Flow)
- Become responsive to customer demand (Pull System)
- Optimize the entire process, not single processes (Toyota Production System)

By emphasizing the overall efficiency of the health care system, countermeasures to problems are found by groups of individuals, allowing all units and departments to better focus on the objective – greater patient satisfaction at a lower cost.

Who Should Attend

Medical directors, CEO's, CFO's, directors of nursing, risk managers and quality assurance directors, and other senior-level executives, including nurse executives, physician leaders, and management teams.

Course Content

- Discussion of Lean process objectives
- Definition of key concepts
- Effects of lean time and batching
- Seven wastes in health care
- Lean implementation tools
- Comparison of Lean vs. traditional methods
- Live simulation to practice what you have learned

Course length: 1 day

Fee: \$200

Minimum attendees: 20

Principles of Production and Inventory Control

Participants will learn how to describe types of inventory and their costs, how they relate to manufacturing operations, and techniques for inventory management. By comparing the concepts of MRP/EOQ techniques with the theory of constraints, just-in-time, and Lean manufacturing, participants will investigate the impacts of each on profitability.

Objective

This course is designed to give the participant an overview of production and inventory control methods. By introducing the various techniques utilized in the manufacturing environment, the participant will have a greater understanding of the concepts they will be exposed to on the job.

Who Should Attend

This course is designed to benefit individuals who are currently working in the field of production or inventory control who need a refresher, and new employees seeking an introduction to this vital area of manufacturing operations.

Course Content

- Describing and discussing the types of inventory, their cost, and how they relate to manufacturing operations
- Techniques for inventory management
- Comparing the concepts of MRP/EOQ techniques and their impacts on profitability with the theory of constraints, just-in-time, and Lean Manufacturing
- Identifying and discussing just-in-time, one-piece flow, Lean Manufacturing, theory of constraints, and MRP

Course length: 2 days

CEU credits: 1.6

Fee: \$439



Quality Control and Inspection Certificate

This certificate program provides a source of learning for specific methods and techniques that can be used to ensure functional inspection of the ASME Y14.5M-1995 Geometric Dimensioning & Tolerancing Standard universal to most prints used to manufacture products. The proper use of measuring instruments, data analysis and techniques of statistical quality control, including frequency distributions, process control charts, six sigma concepts and sampling plans. In addition, the course work provides a basis for practical implementation of these techniques in the quality control system of an industrial organization.

Objective

The objectives of this course are to provide the quality control technicians with the skills to take a blueprint interpret the inspection requirements, select proper measurement instruments and/or inspection fixturing to ensure functional inspection of geometric tolerances. Prepare an inspection process sheet to record data for data analysis and techniques for using statistical quality control.

Who Should Attend

This course is ideally suited for quality control technicians, engineers, quality control inspectors and/or engineers.

Course Content

- Blueprint reading with Geometric Dimensioning & Tolerancing (ASME Y14.5M-1994)
- Quality control and inspection
- SPC for manufacturing

Course length: 6 days

CEU credits: 4.8

Fee: \$1199

Quality Control and Inspection

This course provides the fundamental skills required to perform basic and precision dimensional measurements, including the use of rules, scales, tape measures, calipers, micrometers and the introduction of Statistical Process Control (SPC).

Objective

The objectives of this course are to provide the machine operator or technician with the skills to take a process sheet for a part and verbal instructions, identify and select the required measuring instruments and conduct the required inspection procedure(s). Complete required written inspection report and make a decision to accept or reject component parts.

Who Should Attend

This course is ideally suited for machine operators, technicians, engineers, and quality control inspectors.

Course Content

- Identification of measuring instruments
 - Micrometers
 - Calipers
 - Height gages
 - Protractors
 - Radius gauges
 - Gage pins
 - Steel rule and tape measure
- Hands-on usage of measuring instruments
- Accuracy, repeatability, reliability of measuring instruments
- Reading an inspection plan and part print
- Inspection of sample parts
- Making accept/reject decisions based on inspection results
- Recording of data using SPC

Course length: 2 days

CEU credits: 1.6

Fee: \$439

Tooling U – Calibration Fundamentals 210,
Quality Overview 100



Root Cause Analysis

Provided by ASQ

This course will enable participants to understand root cause analysis as a procedure for ascertaining and “analyzing” the causes of problems in an effort to determine what can be done to solve or prevent them. Consisting of lectures, practice, and role-playing, this course is designed to provide attendees with an in-depth understanding of how to analyze a system in order to identify the root causes of problems. This three-day course will help enable you to:

- Enhance problem-solving effectiveness by providing a model for in-depth analysis of problem situations
- Clarify the difference between analytical and creative thinking, and when each is most useful
- Promote the ability to provide problem-solving support in situations where one is not an expert in the process or technology involved
- Expand the range of tools available for analysis of problem situations

Objective

- Differentiate between problem solving and root cause analysis
- Implement five steps for carrying out effective root cause analysis
- Select from, and apply a variety of tools that support root cause analysis
- Critique and support root cause analysis carried out by others
- Develop possible cause generation
- Identify and select solutions

Who Should Attend

This course is designed for quality, safety, risk and reliability managers, process engineers, technicians, operations supervisors and personnel, process owners, occurrence investigators, analysts, maintenance directors, reliability professionals and anyone who wants to improve their ability to solve recurring problems.

Course Content

- The difference between problem solving and root cause analysis
- Problem understanding
- Identifying possible cause generation and focusing
- Data collection
- Data analysis
- Cause and effect analysis
- The rest of the problem-solving process

Course length: 3 days

Fee: \$8881

Minimum attendees: 6

*Travel expense for the ASQ Instructor is additional

Six Sigma Black Belt Training

Provided by ASQ

Black Belts implement the principles, practices and techniques of Six Sigma for maximum cost reductions. This is a four-week session of rigorous and applied training over a four-month period.

Each student must bring to the first session a management-approved Black Belt project. For more details on project selection, please contact your ASQ Six Sigma Specialist at 800-248-1946.

Prerequisites

- Intermediate-level familiarity with laptop computers
- Basic college-level algebra (helpful for statistics applications)
- Management-approved business improvement project that will provide a bottom-line business improvement to the organization by \$100,000 or greater. Project must be brought to the “first” session. For more details on project selection, please contact your ASQ Six Sigma Sales specialist
- Laptop computers are required. *Participants* must provide own laptop computers with the following minimum requirements:

Hardware

Processor: Pentium® III or higher processor • Hard Disk Space: 3 GB minimum • Memory (RAM): 128 MB minimum; 256 MB recommended • CD-ROM Drive: 10X or higher • Display with 1024 x 768 pixel or higher resolution

Software

Microsoft Windows® 98/2000/NT/ME/XP • Microsoft Office® 98 or higher • Minitab® 15 Statistical Software (required and must be provided by the registrant) • iGrafx® Process™ for Six Sigma 2007 (required and must be provided by the registrant) • Adobe Reader

Course Materials (provided by ASQ)

Investment in the ASQ Six Sigma Black Belt program includes 20 days of classroom training by a skilled and highly experienced Master Black Belt instructor.

Participants receive:

- ASQ’s Six Sigma Black Belt Training CD-ROM (contains all 4 weeks of training in Adobe Reader format plus all electronic exercise worksheets and reference material)
- Printed course manuals for all four weeks of training
- A copy of *The Black Belt Memory Jogger* book
- Continental Breakfast each day of training
- Lunch on Monday-Thursday

Course Content

Session One

- Understanding Six Sigma
- Developing the language of Six Sigma and statistics
- How to compute and apply basic statistics
- How to establish and benchmark process capability

Session Two

- Understanding the theory of sampling and hypothesis testing
- How to apply the key statistical tools for testing hypotheses
- Understanding the elements of successful applications planning
- How to apply and manage the breakthrough strategy
- How to identify and leverage dominant sources of variation
- How to establish realistic performance tolerances

Session Three

- Understanding the basic principle of experimentation
- How to design and execute multivariable experiments
- How to interpret and communicate the results of an experiment
- How to plan and execute a variable search study

Session Four

- Understanding the basic concepts of process control
- How to construct, use, and maintain charts for variables data
- How to construct, use, and maintain charts for attribute data
- How to implement and maintain pre-control and post-control plans
- How to plan and implement process control systems

Course length: 10 Days

Fee: \$88,715 for 6 – 10 attendees

Minimum attendees: 6

*Travel expense for the ASQ Instructor is additional

The Lean Six Sigma Yellow Belt

Objective

This Six Sigma Yellow Belt course teaches any employee the Lean Six Sigma philosophy and how to apply it in his or her role on a day-to-day basis. The participant will learn about What Six Sigma and Lean are separately and how they work together. The participant will continue their exploration of each phase of the Six Sigma's DMAIC methodology, including, project charters, process mapping, cause-and-effect tools, simple data analysis and process improvement and control methods.

Who Should Attend

This course is ideal for any employee of an organization who desires to or is required to know about Six Sigma and its DMAIC methodology without spending the time, effort and expense necessary for Black Belt training.

Course Content

- The meaning and uses of the Six Sigma philosophy
- Each phase of the DMAIC methodology
- The basics of the Lean methodology
- How to apply the Six Sigma mindset in his or her workplace on a daily basis

Course length: 4 days

CEU credits: 3.2

Fee: \$799



Statistical Process Control Methods for Long and Short Runs

Develop the foundation for important statistical concepts by analyzing a variety of real world data sets; learn how to match the appropriate statistical tool to your own applications and how to correctly interpret statistical output to quickly reveal problems with a process or to show evidence of an improvement.

Objective

The objective of this course is to provide the attendees with a variety of Statistical Process Control (SPC) tools for various industrial applications and to enhance the learning process through direct steps, practical problems, and solutions. This course focuses on how to use SPC for process control.

Who Should Attend

This course is recommended for machinists, inspectors, engineers, quality managers, buyers, SPC facilitators, and others who want to enhance their knowledge of SPC methods.

Course Content

- Introduction to Statistical Process Control
- Traditional variables control charts
- Short-run variables control charts
- Traditional attributes control charts
- Short-run attributes control charts
- Pattern analysis
- Process capability
- Problem-solving techniques and tools

Course length: 2 days

CEU credits: 1.6

Fee: \$439



Tooling U – Intro to Six Sigma 170

Basic Rigging

This class provides an entry level opportunity for the worker who is involved in overhead lifting. The class covers basic rigging practices including rigging plans, discussions of what can cause problems with a lift, the rigging triangle, load control and hardware selection and inspection. This is a good entry level class for a new person involved in rigging or a refresher on proper operating practices for existing occasional riggers.

Objective

This course is designed to provide the attendee with the fundamentals required by the rigging industry including best practices, rigging plans, hardware and sling selection and inspection.

The training includes a combination of lecture, discussion, videotapes, written material, and practical instruction, including demonstrations of the equipment and practice exercises performed by the trainee depending on the length of the class.

Who Should Attend

This course is designed for all employees who are new to rigging or are only occasional users.

Course Content

- Risk management and planning
- Rigging principals
- Rigging triangle
- Application of hardware
- Application of slings
- Inspection of hardware
- Inspection of slings

Course length: 2 hours to 1 ½ day

CEU credits: 0.2 to 1.2

Fee: \$69-\$329

