



Course - Certified Construction Quality Manager (CCQM – ASQ)

Course Duration - 5-Day

About the Course

The **Certified Construction Quality Manager (CCQM)** course is designed to prepare professionals to effectively manage, implement, and oversee quality systems across the entire construction project lifecycle. Aligned strictly with the **ASQ CCQM Body of Knowledge**, the course emphasizes **risk-based thinking, contractual quality requirements, audit-driven controls, and leadership in construction quality management.**

Participants gain practical and exam-focused knowledge covering **pre-contract planning, quality management systems, design quality, procurement controls, construction execution, project closeout, and quality leadership.** The course also prepares candidates for the **scenario-based and analytical nature of the CCQM examination.**

Target Audience

This course is ideal for:

- Construction Quality Managers and Quality Engineers
 - Project Managers and Construction Managers
 - QA/QC Engineers and Inspectors
 - Owners' Representatives and Client Quality Leads
 - EPC, PMC, and Design-Build Professionals
 - Audit, Compliance, and Risk Professionals in Construction
 - Professionals preparing for the **ASQ CCQM certification exam**
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Course Outcomes

Upon successful completion of this course, participants will be able to:

- Interpret and apply contractual and regulatory quality requirements
 - Develop and deploy a project-specific Quality Management Plan (QMP)
 - Integrate quality strategy with project execution, risk, and ESG objectives
 - Apply quality controls throughout design, procurement, and construction
 - Manage audits, inspections, nonconformances, and corrective actions
 - Lead quality teams and influence stakeholders effectively
 - Apply Cost of Quality (CoQ) and continuous improvement methods
 - Confidently attempt the **ASQ CCQM certification examination**
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Day-Wise Course Outline

DAY 1 – Pre-Contract Phase & Quality Foundations

Pre-Contract Quality Management

- Construction project lifecycle and quality integration
- Project delivery methods (DBB, DB, EPCM, CMAR, CMFF, DBFM)
- Client types and quality expectations
- Contract types and sources (AIA, FIDIC, DBIA, P3, joint ventures)
- Quality-related contract terms and conditions
- Payment models and quality risk implications
- Payment documentation and quality verification

Contractual Requirements & Bid Finalization

- Scope definition and boundaries
- Schedule and resource planning from a quality perspective
- Roles and responsibilities of owners, contractors, trade partners, and quality managers
- Quality inputs to proposals and RFPs
- Stakeholder identification and engagement
- Procurement and contracting approaches

- Delegated design responsibilities and risk transfer
 - Bid evaluation criteria linked to quality objectives and CTQs
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DAY 2 – Strategic Quality Planning & Quality Management Systems

Strategic Quality Planning

- Development of a project quality strategy
- Stakeholder requirements (stated and implied)
- Key performance indicators (KPIs) for quality
- ESG, sustainability, and governance considerations
- Alignment of the Quality Plan with:
 - Project Execution Plan
 - HSE Plan
 - Risk Management Plan
 - Communication Plan
 - Project Schedule

Quality Management Systems (QMS)

- Construction QMS principles and structure
 - Alignment with international standards (ISO 9001, ISO 10006, ISO 14001, ISO 45001)
 - Development of a project-specific Quality Management Plan (QMP)
 - Policies, procedures, and method statements
 - Integration of PMBOK® principles
 - Quality Assurance vs Quality Control in construction projects
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DAY 3 – Resource Planning, Audits & Design Quality Management

Quality Resource Planning

- Quality resource assessment and mobilization
- Roles and competencies of quality personnel
- Training needs analysis and effectiveness evaluation
- Third-party inspection and outsourced quality services
- Measurement systems analysis and calibration
- Quality tools, dashboards, and infrastructure

Quality Audits

- Audit types and auditor independence
- Quality audit planning and scheduling
- Conducting system, process, and compliance audits
- Identifying and managing nonconformances
- Audit reporting and follow-up

Design Phase Quality Management

- Design quality objectives and inputs
- Functional and non-functional requirements
- Lessons learned and value engineering
- Stakeholder coordination in design
- QMS application in design reviews
- Constructability and functionality reviews
- Design verification, validation, and change control

DAY 4 – Procurement & Construction Quality Execution

Quality in Procurement

- Defining procurement quality requirements
- Vendor and subcontractor quality alignment
- Inspection and Test Plans (ITPs)
- First Article Inspection (FAI) and Factory Acceptance Testing (FAT)
- Pre-activity and quality kick-off meetings
- Material control, traceability, and storage
- Vendor performance monitoring

Risk Management in Construction Quality

- Risk identification and assessment techniques
- Risk treatment strategies
- Risk-based audits and surveillance

Construction Quality Planning

- Review of construction plans and specifications
 - Permit and regulatory compliance
 - Construction submittals management
 - Material evaluation and verification
 - Requests for Information (RFIs) and change management
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DAY 5 – Construction Controls, Closeout & Quality Leadership

Construction Quality Control & Monitoring

- Risk-based inspection and testing strategies
- In-process, intermediate, and final inspections
- Management of NCRs, CARs, and CAPA
- Stop-work authority and escalation
- Site quality audits and quality records
- Destructive and non-destructive testing
- Laboratory accreditation and compliance monitoring

Project Turnover & Closeout

- Final quality documentation management
- Punch list and nonconforming work closure
- As-built drawings, O&M manuals, and commissioning records
- Final certification, warranties, and turnover audits

Operations, Maintenance & Quality Manager Skills

- Quality objectives for operations and maintenance
- Business continuity and shutdown planning
- ASQ Code of Ethics
- Stakeholder alignment and communication
- Team building, RACI, and conflict resolution
- Change management in construction environments
- Cost of Quality (CoQ) and improvement initiatives
- Customer satisfaction and feedback systems
- Application of quality management tools
- Knowledge management and lessons learned

