XCELERATE TRAINING INSTITUTE

your learning & development partner

CONSTRUCTION MANAGEMENT & CIVIL ENGINEERING

Construction Quality Control

DURATION	LANGUAGE	FORMAT
5 days	English	Classroom / Online

Upcoming dates

Dates	Venue	Format	Fee
14 – 18 Jun 2027	Live online	Online (live)	€1,200
19 – 23 Jul 2027	Barcelona	Classroom	€5,500
20 – 24 Dec 2027	Live online	Online (live)	€1,200

Register or ask a question

Online: staging.x8ti.com/course/construction-quality-control/

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Construction Quality Control

Introduction

Introduction

It is reported that the total cost of poor and inefficient control of construction quality costs a lot. Sometimes, it is more than the total combined profits of all the companies involved in the construction.

Good quality management combined with proper procedures can transform these losses into profits and ensure customer satisfaction is guaranteed. However, developing and meeting the quality objectives is a process that requires a deep understanding of the legislation and compliance requirements of any construction project. Luckily, this course will offer a practical and tested approach to solving all the construction quality control problems while ensuring that the international standards are maintained.

Real case study examples will be provided with a focus on the use of modern technology and techniques to ensure quality is maintained. This Xcelerate Training Institute course has been designed to suit professionals who have experience in the field and those who are just starting their careers or intend to start careers in the construction field. All the participants will greatly benefit from its design and have a better understanding of the application and importance of quality control in the construction industry.

Participants enrolled in this course will be exposed to state-of-art techniques and methods that are used to ensure that quality is maintained in the construction industry. It will give insights into how the control specification recommendations work and how to use the new and modern techniques and technology to ensure quality is achieved.

Learning Objectives

- Contribute in great ways to the credibility and development of their organizations by ensuring quality is maintained in all the construction project undertakings
- Apply advanced tools and technologies to enhance the project quality control process
- Oversee multiple functions end to end at ensuring the construction quality control process is followed
- Familiarize themselves with all the quality management techniques and procedures
- Familiarize themselves with all the quality control processes in different weather conditions
- Deeply understand the practical tools, methods, and techniques to control construction quality from the start to finish of any project, including processes such as field-testing and required lab facilities
- Learn new concepts such as concrete strength measurement
- Learn how to conduct the available non-destructive testing for different construction materials

Training Methodology

Xcelerate Training Institute Talent offers this course by utilizing the best industry-known professionals who have vast experience in quality control. The mode of delivery will be lectures, notes, practical exercises, and presentations where necessary. Like all our acclaimed Xcelerate Training Institute courses, this program also follows the ‘Do-Review-Learn-Apply’ model.

All the participants are highly encouraged to be active during the delivery of this course to ensure maximum retention of the skills and knowledge.

Benefits For Your Organization

Organizations that will have professionals who have taken this course will benefit in the following ways:

- Enhanced quality of engineering review, which is guaranteed to improve the organization's project output
- Seamless operations in ensuring construction quality are maintained
- Detailed risk assessment involving the negligence of construction quality
- Better construction project maintenance
- Reduced and well-managed costs because of improved and better techniques of ensuring there is quality control
- Increased investment returns by reducing the associated legal fees of not controlling construction quality
- Regular upscale of other employees' skills and knowledge by working alongside well-trained professionals who understand what they are doing
- Improved organizational utilization of modern tools to achieve better results
- A thorough review of the existing quality control processes

Benefits For You

All the professionals who will undergo this course will benefit in the following ways:

- Improved and better design capabilities of the professional
- Increased skills to enhance the quality of the materials and requirements of any construction process
- Enhanced understanding of how to use modern technologies and tools
- Added skillets that can help when taking up higher-level responsibilities
- Improved confidence to teach others and better capabilities at leading others
- Better and deep understanding of the construction quality control processes
- Enhanced foresight to predict all the issues that may arise due to construction quality control

Target Audience

This course will be interesting and beneficial to the following professionals, but it is not limited to them only in any way:

- Structural and civil engineers who intend to follow quality control guidelines when developing their designs
- Project managers, when attending to their duties to ensure that the construction project follows the quality controls set
- Quality assurance officers who are already practicing
- Quality control professionals who want to refresh their knowledge
- Construction managers
- Auditors

Course Outline

Concrete Materials Components

- Example of Quality Control of concrete foundations construction under vibrating machines
- Codes and specification limitations as ACI and EN
- The nature of concrete variability
- Checking corrosion in steel bars
- Preparation before concreting
- Codes recommendation for the quality control
- Properties of concrete materials such as aggregate and cement
- Comparison of different Non-destructive testing methods

Properties of Fresh Concrete

- Quality control for concrete form work
- Basic statistics
- Precaution in various climatic conditions
- Auditing the construction site quality
- Statistics for the quality control data
- Data for evaluation collection
- Concrete design mix

Processing Fresh Concrete

- Hot weather handling of concrete during pouring
- Cube and cylinder tests
- Applied weight of the load on the existing or new steel structure in construction activities
- Steel bars replacement
- Work ability test for concrete

Integrity Management

- Anchor bolts quality control
- Welding processes and their precautions
- Quality control for tank construction
- Materials used in welding steel structures
- Quality control for foundation construction and machine installations
- The five methods application
- The main reasons for various welding defects

Total Quality Management for Concrete

- Coefficient of variation
- Qualified personnel who should undertake the quality control
- Total quality control management system
- Pareto chart

Taking Care of Concrete

- Precautions in design mix in hot weather conditions
- How to control the fresh concrete obtained from the ready-mix plant
- Coefficient of variation
- Evaluating the grade of the quality of concrete
- How to control various types of concrete casting on site

Non-Destructive Tests

- Loki tests
- Various concrete tests were performed by various control personnel
- Rebound hammer
- Ultrasonic
- Core test
- Corrosion phenomena affecting quality

Quality Assurance for Various Construction Materials

- Quality control for corrosion protection systems
- The procedure of conducting quality control while on construction projects
- Steel reinforcing quality control
- Applying the quality control techniques to wood form works
- Applying the quality control techniques to steel constructions
- Quality assurance and quality control for the foundation in various industries

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Registration Form

Construction Quality Control

Preferred dates: ..... Venue or online: .....

Duration: 5 days Language: .....

Please complete and email this form to us, or register online. We confirm your place and send the invoice within one working day.

Delegate information

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

Official email: ..... Personal email: .....

Company information

Company name: .....

Address: .....

City / country: ..... VAT / tax number: .....

Person responsible for training & development

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

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