

Civil Engineering Fundamentals for Non-Civil Engineers Course

15 – 19 March 2027
Dubai

AGILE LEADERS
Training Center

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Ref: 510_264852 **Date:** 15 – 19 March 2027 **Location:** Dubai **Fees:** 6500 Euro

Overview

Civil Engineering Fundamentals for Non-Civil Engineers Course is a one-week foundation course for project, procurement, contracts, finance, facilities, safety, and coordination teams who leave with a Civil Works Review and Coordination Pack. Participants connect civil engineering fundamentals, construction methods and materials, civil drawings and specifications, soil and foundations, concrete and steel, roads and utilities, quantity awareness, and civil works coordination. Agile Leaders Training Center presents civil works through practical interpretation and structured communication.

Who Should Attend

- Teams responsible for planning, coordinating, or monitoring civil work packages
- Commercial staff responsible for procurement, contracts, quantities, and cost information
- Operations and facilities teams responsible for asset interfaces and maintenance needs
- Safety and quality teams responsible for site controls and evidence
- Administrators and technical coordinators responsible for progress and issue reporting

The course assumes participants work with technical teams but have no civil engineering education; it leaves out design authority, calculations, surveying practice, and code approval.

Departments and Industries

The course supports non-civil specialists who interact with construction and infrastructure delivery.

- Buildings, industrial facilities, utilities, and transport infrastructure
- Project management, procurement, contracts, and commercial teams
- Facilities management, maintenance, and asset operations
- Quality, safety, environmental, and site administration functions
- Public services, development organizations, and technical consultancies

Learning Objectives

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

- Analyze civil project stages, roles, documents, and information flows
- Use drawings, specifications, site data, and submittal registers
- Compare soil, foundation, concrete, steel, road, and utility concepts
- Evaluate construction methods, sequences, quality, and safety interfaces
- Use quantity, progress, issue, and coordination records

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- Build a Civil Works Review and Coordination Pack

Course Agenda

Day 1: Civil Works Lifecycle and Documents

- Civil Project Lifecycle and Responsibility Map
- Drawing Type, Scale, Symbol, Revision, and Cross-Reference Guide
- Specification, Bill-of-Quantities, and Scope-Interface Matrix
- Submittal, Request-for-Information, and Technical-Query Register
- Site Information, Survey-Control, and Existing-Condition Record

Day 2: Ground Foundations and Structures

- Ground Investigation and Geotechnical-Report Reading Guide
- Earthworks, Excavation, Fill, Compaction, and Dewatering Sequence
- Shallow and Deep Foundation Selection Awareness Matrix
- Concrete, Reinforcement, Formwork, and Curing Process Map
- Structural Steel Member, Connection, and Erection Overview

Day 3: Roads Drainage and Utilities

- Road Alignment, Formation, Pavement-Layer, and Kerb Diagram
- Surface Drainage, Pipe Network, Manhole, and Outfall Map
- Water, Sewer, Power, and Communications Utility-Interface Plan
- Trench, Bedding, Backfill, Crossing, and Reinstatement Checklist
- Access, Temporary Works, Traffic, and Work-Zone Coordination Plan

Day 4: Methods Quantities Quality and Reporting

- Construction Method Statement and Sequencing Review Checklist
- Quantity Takeoff, Measurement, and Cost-Code Awareness Sheet
- Inspection and Test Plan, Hold Point, and Quality Record Map
- Hazard, Permit, Access, and Civil-Safety Interface Register
- Progress Measurement, Constraint, Issue, and Decision Report

Day 5: Civil Works Coordination Practice

- Exercise: Trace Civil Scope Across Drawings and Specifications
- Exercise: Compare Foundation and Material Information
- Exercise: Review a Road, Drainage, and Utility Interface
- Exercise: Update Quantities, Progress, Risks, and Technical Queries
- Capstone Exercise: Civil Works Review and Coordination Pack

Practical Exercises

The course uses suggested activities that build interpretation and coordination skills without assigning design authority.

- Suggested activity: follow one civil scope item across drawings, specifications, quantities, and submittals.
- Suggested activity: arrange earthworks, foundation, structural, road, and utility activities into a logical sequence.
- Suggested activity: identify quality, safety, access, and discipline-interface concerns from a site scenario.
- Suggested activity: prepare a progress note with evidence, constraints, queries, decisions, and referrals.

FAQs

Who suits the Civil Engineering Fundamentals for Non-Civil Engineers Course, and what does it assume?

It suits professionals who coordinate civil work but lack civil engineering education. It assumes basic project workplace experience and no design authority.

How does civil engineering fundamentals training differ from a civil engineering design course?

It develops document literacy, construction awareness, coordination, and reporting rather than calculations, detailed design, code application, or professional engineering judgment.

What civil drawings and specifications should non-engineers recognize?

Non-engineers should recognize plans, sections, details, schedules, revisions, specifications, quantity documents, submittals, and the links among them while referring technical interpretation to qualified professionals.

Why are soil and foundation concepts included in civil engineering fundamentals?

Ground conditions influence excavation, support, water control, foundation choices, sequence, access, cost, and risk, so non-engineers need enough context to coordinate questions and referrals.

Does civil engineering fundamentals training permit engineering approval?

No. Licensed design, calculations, code checks, surveys, geotechnical advice, and project-specific technical approvals remain the responsibility of qualified professionals.

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Conclusion

Participants take back a Civil Works Review and Coordination Pack linking project stages, documents, site information, ground, structures, roads, utilities, methods, quantities, quality, safety, progress, and issues. The pack improves cross-functional questions and evidence-based reporting. It supports coordination without replacing technical calculations, professional judgment, or licensed approval.