



Advanced Scaffolding Design and Safety Engineering Training Course

20 – 24 September 2027
Tokyo

Advanced Scaffolding Design and Safety Engineering Training Course

Ref: 1323_197771 **Date:** 20 – 24 September 2027 **Location:** Tokyo **Fees:** 10000 Euro

Overview

Advanced Scaffolding Design and Safety Engineering Training Course is a one-week course for scaffolding designers, temporary works engineers, safety practitioners, site engineers, supervisors, inspectors, and contractors who leave with a Scaffold Design and Safety Assurance File. Participants connect design basis, load assessment, foundations, stability, ties, access, erection sequencing, handover, inspection, change control, and rescue planning. The approach integrates engineering review with field verification. Agile Leaders Training Center presents scaffolding design and safety engineering as a controlled temporary works discipline.

Who Should Attend

- Functions responsible for scaffold and temporary works design
- Teams responsible for construction safety and work-at-height controls
- Personnel responsible for site engineering and structural review
- Supervision responsible for erection, alteration, and dismantling
- Inspection functions responsible for handover and continued-use assurance

The course assumes participants already manage scaffolding, temporary works, construction safety, or site assurance, and it leaves out basic user awareness and proprietary system certification.

Departments and Industries

The course supports departments and industries that design, erect, inspect, or control scaffolding as temporary works.

- Construction and civil engineering projects
- Oil, gas, energy, and industrial maintenance
- Marine, ports, and shipyard operations
- Facilities, utilities, and infrastructure services
- Temporary works and occupational safety functions

Learning Objectives

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



- Analyze scaffold design briefs and foreseeable load cases
- Apply stability, foundation, tie, and bracing principles
- Build erection, alteration, and dismantling control plans
- Evaluate access, fall, and falling-object controls
- Use inspection, handover, and change-control records
- Prioritize rescue and site-assurance actions

Course Agenda

Day 1: Design Basis and Load Assessment

- Scaffold Design Brief and Duty Classification
- Dead, Live, Environmental, and Imposed Load Register
- Load Path and Component Capacity Review
- Standard Configuration Applicability Decision Tree
- Design Assumption and Constraint Schedule

Day 2: Foundations, Stability and Ties

- Ground Bearing and Foundation Assessment Sheet
- Base Plate and Sole Board Selection Method
- Global Stability and Overturning Review
- Tie Pattern and Anchorage Design Map
- Bracing and Structural Continuity Checklist

Day 3: Access, Protection and Work Sequence

- Platform Layout and Safe Access Plan
- Edge and Falling-Object Protection Matrix
- Erection and Dismantling Sequence Method
- Exclusion Zone and Interface Control Drawing
- Emergency Access and Rescue Arrangement

Day 4: Handover, Inspection and Change Control

- Scaffold Handover and Release Certificate
- Competent-Person Inspection Record
- Weather and Event-Triggered Review Checklist
- Scaffold Modification Request and Approval Log
- Defect Classification and Closure Register

Day 5: Scaffolding Engineering Practice

- Exercise: Design Brief and Load Case Review
- Exercise: Foundation, Tie, and Stability Analysis
- Exercise: Erection Sequence and Protection Planning
- Exercise: Inspection and Modification Decision Case
- Capstone Exercise: Scaffold Design and Safety Assurance File

Practical Exercises

The course uses suggested activities based on construction, industrial maintenance, marine, and infrastructure scenarios.

- Suggested activity: test a scaffold design brief against loads, site constraints, and standard-configuration assumptions.
- Suggested activity: evaluate foundations, ties, bracing, access, and protection for a complex elevation.
- Suggested activity: review a proposed alteration and define inspection, approval, and handover evidence.
- Suggested activity: assemble a controlled assurance file with drawings, calculations, sequencing, rescue, and records.

FAQs

What is scaffolding design and safety engineering?

Scaffolding design and safety engineering is the controlled definition, calculation, review, erection, inspection, alteration, and use of scaffold temporary works within stated loads, geometry, supports, ties, and site conditions.

When does a scaffold require an engineered design?

An engineered scaffold design is required when the arrangement falls outside an accepted standard configuration or when loading, geometry, sheeting, support, interfaces, or site conditions require calculation and documented review.

Who suits advanced scaffolding design and safety engineering training and what does it assume?

Advanced scaffolding design and safety engineering training suits experienced temporary works, safety, site engineering, supervision, inspection, and contracting personnel. It assumes operational responsibility for scaffold controls.



How does advanced scaffold engineering differ from basic scaffold inspection training?

Advanced scaffold engineering integrates the design basis, loads, stability, ties, foundations, sequencing, modifications, rescue, and assurance. Basic inspection training focuses mainly on recognizing defects and confirming continued suitability.

How should scaffold modifications be controlled?

Scaffold modifications should be controlled through a defined request, engineering impact review, authorized instruction, updated drawings or records, competent erection, reinspection, and renewed handover before use.

Conclusion

The course integrates scaffold design, loads, foundations, stability, ties, access, sequencing, inspection, change, rescue, and assurance. Participants take back a Scaffold Design and Safety Assurance File containing decisions, calculations, drawings, controls, approvals, and records. The file changes how organizations coordinate engineering intent with safe field execution and continued use.