This comprehensive two day course will teach you how to model, analyse and design steel and concrete buildings effectively using Tekla® Structural Designer. Referencing your existing knowledge, you will gain a full understanding of how to model with physical objects and undertake gravity and lateral design. In addition you will grasp the many useful shortcuts that our experts use daily.

On completing the course, you will have the knowledge and confidence required to model, analyse and design, in steel and concrete, using Tekla® Structural Designer.

Course Agenda & Details:

Introduction
• Overview of the general program scope, function and interface
• Overview of structural analysis capabilities
• Overview of design codes available

The Graphical User Interface
• The ribbon
• Screen layout
• Customising the graphical interface
• Navigating the interface
• Mouse control
• Properties window
• Property sets

Modeling in Concrete
• Overview of concrete beam, column and wall design
• Overview of concrete slab design
• Placing Intermediate elements
• Modeling and managing concrete slabs
• Considering slab openings in two-way spanning

Modeling Roof Systems
• Using the truss wizard
• Modeling freeform trusses
• Modeling booms and internals
• Modeling eaves beams and purlins
• Modeling roof panels

Target Audience
For engineers who want to understand the fundamentals of analysis and design within Tekla® Structural Designer

Pre-requisites
Knowledge of engineering

Training method available
e-Learning
Classroom training
Training in the comfort of your own offices
Model Validation
- How do to run model validation
- What are validation errors and warnings
- How to locate validation errors
- Common validation errors
- What are validation errors and warnings

Setting Up a 2D Model
- Setting up a new model
- Pre-model settings
- Controlling material properties
- Using the Project Wiki

Introduction to Creating Models
- Defining construction levels
- Defining grid and construction lines
- Using dimensioning and measuring tools
- How to create, edit and align columns, walls and beams
- Effectively use and manage property sets

Loading and Combinations
- How to create and control loadcases and combinations
- Applying member and nodal loading
- Applying line and area loads
- Automatic lateral loading and application of EHF's
- Creating wind loading manually
- Overview of the wind wizard

Modeling in Steel
- Overview of the design process
- Automatic sizing of steel elements
- Updating designs
- Overview of the overall building design

3D Model Analysis results
- Overview of the analysis options
- Overview analysis process
- Reviewing loading tables
- How to view and filter graphical analysis results
- Using tabulated results

Output - Reports and Drawings
- Overview of report creation
- Overview of export capabilities
- Overview of drawing creation

Analysis and Design of Concrete Structures
- Auto design and check design
- Reviewing the analysis results
- Interactive design of RC columns and walls
- Interactive design of RC beams
- Interactive design of RC slabs
- Interactive design of flat slabs
- RC members detail drawings
- RC members design reports
- Design Groups

Analysis and Design of Steel Structures
- Combination classes
- Properties
- Design options
- Design steel (Gravity)
- Check the status
- Check the loading summary
- Using Review view
- Design steel (All)