

Tekla Structure Essentials Training

Course Description

The course is an extensive course designed to equip learners with the essential skills and knowledge needed to proficiently navigate and utilize Tekla Structures, a powerful Building Information Modeling (BIM) software widely used in the construction industry. Through a series of structured modules, participants will learn the fundamentals of creating, managing, and exporting structural models, as well as generating fabrication and general arrangement drawings.

Audience

This course is ideal for aspiring and practicing structural engineers, architects, drafters, construction professionals, and anyone seeking to enhance their proficiency in Tekla Structures. Whether you're a beginner or looking to deepen your understanding, this course provides a comprehensive foundation to harness the capabilities of Tekla Structures effectively.

Pre-requisite Knowledge/Skills

Familiarity with basic computer operations and a foundational understanding of structural engineering concepts would be beneficial but not mandatory. Participants should have access to Tekla Structures software to follow along with the practical exercises.

Course Objectives

By the end of this course, participants will:

- Gain a thorough understanding of Tekla Structures user interface and navigation.
- Learn to create, modify, and manage structural elements such as grids, foundations, columns, walls, beams, slabs, and steel parts.
- Develop proficiency in generating fabrication and general arrangement drawings.
- Acquire skills in exporting data in various formats including drawings, PDF reports, and IFC files.
- Enhance their ability to collaborate effectively within the Tekla Structures environment.
- Apply learned concepts and techniques to real-world structural modeling and drawing projects.

Course Outline

Module 1: Start Learning Tekla Structures

- Launching Tekla Structures
- Creating a New Model
- User Interface
- Navigating in a Model
- Rendering Objects
- Basic Commands

Module 2: Working with Grids

- Grid
- Importing Files
- Modifying Grids
- Creating Views Along Grid Lines

Module 3: Creating Foundations

- Overlapping Concrete
- Creating Pad Footings
- Creating Strip Footings
- Copying Objects

Module 4: Creating Concrete Columns and Walls

- Creating Concrete Columns
- Creating Concrete Walls

Module 5: Creating Concrete Beams

- Creating Temporary Views
- Creating Concrete Beams
- Creating Cuts

Module 6: Creating Concrete Slabs

- Creating Concrete Slabs
- Changing the Class Property
- Direct Modification
- Modeling the Second Floor
- Creating a Roof Slab

Module 7: Creating Steel Parts

- Modeling Steel Parts
- Creating Steel Columns
- Creating Steel Beams
- Simulation: Saving and Loading Object Properties

Module 8: Creating Steel Connections

- Components in Tekla Structures
- Adding Base Plates
- Adding Connections for Beams

Module 9: Managing Model Information

- View Filters
- Creating Project Thumbnails

Module 10: Drawings in Tekla Structures

- Principles of Drawings
- Integration Between Drawings and the Model
- Drawing Types
- Drawing Mode

Module 11: Creating Fabrication Drawings

- Numbering Model and Inquire Parts
- Creating Fabrication Drawings
- Modifying Fabrication Drawings

Module 12: Creating General Arrangement Drawings

- Creating General Arrangement Drawings

- Drawing Levels
- Revising the Model and Updating GA Drawings

Module 13: Exporting Data

- Exporting a Drawing
- Creating a PDF Report
- Exporting an IFC File
- Printing Drawings in Tekla Structures
- Various Types of Export
- Compatible Software with Tekla Structures