TOPENGINEER - COURSE PROGRAMME

# Level 1 - Tekla Structures basic course

Two programme parts. Timing and practical work depend on the selected 2-, 5- or 10-day format.

## Part 1 - Modelling

### Getting started and navigating the model

1.1 Introduction to Tekla Structures and an overview of its capabilities
1.2 Starting Tekla Structures
1.3 Selecting environments and model templates
1.4 Creating a new model
1.5 Understanding the structure of a new model
1.6 Understanding the view work area
1.7 Rotating and navigating the model
1.8 Switching to the view plane
1.9 Working with model grids

### Creating and editing structural objects

1.10 Creating columns
1.11 Creating beams
1.12 Creating contour plates
1.13 Creating polybeams
1.14 Creating twin profiles
1.15 Part representation modes: Ctrl+1-5
1.16 Corner points and chamfer properties
1.17 Selecting object handles
1.18 Using construction geometry
1.19 Snapping to points and objects
1.20 Using selection switches for different object types
1.21 Fitting part ends
1.22 Cutting parts with a line
1.23 Cutting parts with a polygon
1.24 Cutting a part with another part
1.25 Creating bolted connections

### Assemblies, views and work planes

1.26 Understanding assemblies
1.27 Creating welds
1.28 Creating basic model views
1.29 Creating views along grid lines
1.30 Understanding the view plane
1.31 Setting and using the work plane

### Introduction to components and AI

Components are introduced at an overview level in this basic course. Detailed component development and parameterisation are covered in Level 2.

1.32 Understanding components
1.33 Creating a simple custom component
1.34 Introduction to the Custom Component Editor
1.35 Binding component objects to planes
1.36 Creating formulas in the Custom Component Editor
1.37 Defining custom variables
1.38 Modifying object properties in the component browser
1.39 Introduction to more complex parametric custom components
1.40 Introductory practice with different custom components
1.41 Working with component catalogues
1.42 Transferring components between projects
1.43 Overview of creating common custom components
1.44 Overview of using AI with Tekla Structures

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## Part 2 - Drawings and model checks

### Drawing fundamentals and manual editing

2.1 Preparing the model for drawing creation
2.2 Understanding the main drawing types
2.3 Managing drawings in Document Manager / Drawing List
2.4 Configuring settings before creating general arrangement drawings
2.5 Creating general arrangement drawings
2.6 Opening an existing drawing
2.7 Saving drawings and saving the model
2.8 Understanding drawing properties
2.9 Understanding drawing view properties
2.10 Modifying the properties of a selected drawing object
2.11 Setting mark properties in drawings
2.12 Controlling object representation in drawings
2.13 Shortening parts in drawing views
2.14 Setting drawing view label properties
2.15 Creating dimensions
2.16 Modifying dimensions by adding and removing dimension points
2.17 Creating basic drawing views
2.18 Creating section views in drawings

### Drawing types, dimensioning and output

2.19 Configuring settings before creating single-part drawings
2.20 Creating single-part drawings
2.21 Applying dimensioning rules to single-part drawings
2.22 Configuring settings before creating assembly drawings
2.23 Creating assembly drawings
2.24 Applying dimensioning rules to assembly drawings
2.25 Configuring settings before creating cast unit drawings
2.26 Creating cast unit drawings
2.27 Applying dimensioning rules to cast unit drawings
2.28 Configuring settings before creating multidrawings
2.29 Creating multidrawings
2.30 Cloning drawings
2.31 Cloning drawings from another model
2.32 Working in the Drawing Editor
2.33 Printing drawings and producing PDF files
2.34 Exporting drawings to DWG

### Catalogues, reports and model checks

2.35 Overview of editing the profile catalogue
2.36 Overview of editing the material catalogue
2.37 Overview of Template Editor for reports
2.38 Setting up a multi-user model
2.39 Working in multi-user mode
2.40 Configuring advanced project options
2.41 Creating reports from the model
2.42 Checking the model for clashes
2.43 Checking and correcting numbering
2.44 Overview of using AI to configure drawing settings