



**KLEIOS<sup>®</sup>**  
**TECHNOLOGIES**  
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**TEKLA STRUCTURAL DESIGNER**

**COURSE SYLLABUS**

**KLEIOS TECHNOLOGIES<sup>®</sup>**

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**COURSE SYLLABUS**

SNO	CHAPTER	TOPICS
1.	Introduction to Tekla	Overview of Tekla Structural Designer
		Software demonstration
		User Interface
		Introduction to grids and construction levels in the software
2.	Modelling with Tekla	Tekla Structural Designer Working Environment
		Creating a new model
		Inserting grid and level setting
		Creating Model views
		Modelling of Basic Structural Elements
		Modelling of concrete members (Columns, beams and slabs)
		Creating, Modifying, Importing & Exporting Custom Components
		Modelling of staircase
		Modelling of tanks and shear walls
		Creating slab and wall openings
		Modelling foundations
		Model validation
3	Types of foundations	Modelling and design of isolated footing
		Modelling and designing of strip foundation
		Modelling and designing of mat foundation
		Modelling and designing of pile foundations
		Modelling and designing strip wall foundations

4.	Loadings	Creating different load cases
		Application of dead load on the structure
		Application of imposed load on the structure
		Application of wind loads on the structure
		Application of seismic loads on the structure
		Application of water pressure on the water tank
5.	Analysis	Overview of analysis
		Check and review analysis settings
		Running analysis
		Interrogating analysis result
		Solving analysis warnings and errors
		Interpreting FE analysis result
6.	Design	Overview of design
		Design options
		Auto design and check designs
		Designing of individual members
		Interactive design of columns, beams and wall
7.	Steel structure	Modelling a steel structure
		Modelling of steel columns
		Modelling of steel beams
		Modelling of secondary steel beams
		Modelling of braces
		Modelling of trusses and roof system
		Application of different types of load in steel structure

		Validating the model
		Analysis of steel structures
		Designing of steel structures
8.	Output	Generating reports
		Managing the drawing layers
		Generating drawing output

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