

AutoCAD Structural Detailing 2010 Essentials

Description

Duration: 3 Days

Students use AutoCAD Structural Detailing 2010 to learn about building information modeling and the tools for parametric structural systems design and documentation in the AutoCAD package. Students begin the three-day course by learning the fundamental features of AutoCAD 2010 3D, and then progress through Concrete creation, reinforcement detailing, 3D steel, connection modeling & creation, before finishing with construction documentation and development of templates.

Course Objectives:

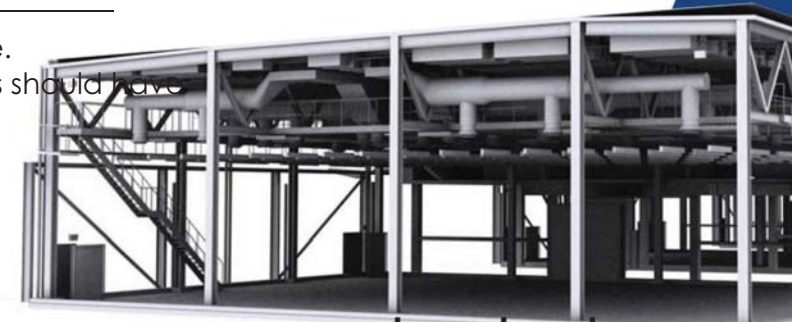
The primary objective of this courseware is to teach students the concept of building information modelling and introduce the tools for engineering creation and documentation using AutoCAD Structural Detailing 2010. After completing this course, students will be able to:

- Describe the benefits of building information modelling.
- Use the fundamental features of AutoCAD Structural Detailing 2010.
- Set up, import, and create concrete projects.
- Use the 3D design tools to design and document reinforcement & Steel plans & Sections.
- Create detailing and drafting views.
- Collaborate with architects and engineers on projects.
- Annotate and create advanced tables .
- Create construction documentation.

Who Should Attend & Prerequisites:

This courseware is designed for users familiar with AutoCAD but have not used the 3D tools before. 1 year previous 2D CAD experience is necessary. However, before using this courseware, students should have a working knowledge of the following:

- Structural Engineering Principals.
- Shop Detailing Engineering & documentation experience
- Microsoft® Windows® XP or Microsoft® Windows® 2000.



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AutoCAD Structural Detailing Essentials Course Outline:

Day 1

Building Information Modelling Overview

- Building Information Modelling

AutoCAD 3D Interface

- Navigation
- Interact with 3D Models
- Create basic AutoCAD solids
- Work with UCS & Tracking in 3D

ASD Formwork Interface

- User Interface Overview
- Object Inspector

Starting a New Project in ASD Formwork

- Setting Up a Project - Workframes
 - Importing DWG files from Consultants
 - Creation of Structural objects
 - Modification of ASD Objects
 - Developing Plans & Sections
 - Setting up layout spaces with views
- Developing Reinforcement from Project

Developing Details in ASD Reinforcement

- User Interface Overview
- Developing Beam Section
- Developing Column Section
- Developing Footing Section
- Creating Reinforcement Data Tables
- Setting up layout spaces with views
- Template Settings and Preparation Overview

Day 2 & 3

Creating Models in ASD Steel

- User Interface Overview
- Workframes
- Modelling of Members (Columns, Beams)
- Modelling of Connections

Manipulation of Models in ASD Steel

- Modifying steel members
- Modifying & Copying Connections

Parametric Steel Structures

- Steel Structures & Bracing
- Stairs, Ladders & Handrails
- Grating Development

Marking Elements & Assemblies

- Positioning Elements, Groups & Assemblies
- Creation of Schemes

Layout Sheets and Detailing

- Defining and Modifying Positions
- Adding Positions to Layout Sheets
- Creation of BOM Tables
- Divide Project

Templates & Settings

- Preferences & Project Settings
- Tables Manager
- Divide Project
- Formwork Template Settings Creation Overview
- Reinforcement Template Settings Creation Overview
- Steel Template Settings Creation Overview

