



Autodesk Advance Steel Fundamentals

Course Length: 4 Days

The Autodesk® Advance Steel software is a powerful 3D modeling application that streamlines the fabrication process through the use of a 3D model, which is used to create fabrication drawings, Bill of Materials (BOM) lists, and files for Numerical Control (NC) machines.

Since structural steel projects are extremely complex, the Autodesk Advance Steel software is also complex. The objective of the Autodesk® Advance Steel: Fundamentals training course is to enable you to create full 3D project models at a high level of detail and set them up in fabrication drawings. This course focuses on the basic tools that the majority of users need. You begin by learning the user interface, basic 3D viewing tools, and the standard AutoCAD® tools that are routinely used. Specific Autodesk Advance Steel objects, including structural columns, beams, bracing, plates, bolts, anchors, welds, and additional 3D objects are also covered. You will also learn about the powerful model verification tools. To complete the course, you will learn to edit and generate all of the required documentation files that enable your design to accurately and effectively communicate the final design.

Topics Covered:

- Understand the process of 3D modeling and extracting 2D documentation from a model in the Autodesk Advance Steel software.
- Navigate the Autodesk Advance Steel interface.
- Work with 3D viewing tools.
- Review helpful AutoCAD tools.
- Work with the User Coordinate System (UCS).
- Use the Autodesk Advance Steel Modify commands.
- Add structural grids.
- Create levels.
- Model columns and beams and add bracing.

Course description shown for Autodesk Advance Steel 2021. Topics, curriculum, and/or prerequisites may change depending on software version.

- Create connections using the Connection Vault.
- Create special parts.
- Verify models using Clash Checking tools.
- Modify a drawing prototype.
- Work within the Drawing Style Manager.
- Create custom connections.
- Create plates and add bolts, anchors, and welds.
- Add grating and cladding.
- Model ladders, stairs, and railings.
- Create concrete objects such as footings.
- Number objects.
- Extract 2D drawings from the model using Drawing Styles and Drawing Processes.
- Review and modify 2D drawings using the Document Manager.
- Modify 2D details with parametric dimensions.
- Revise models and drawings.
- Create BOM lists.
- Export data to .NC and .DXF files.

Prerequisites:

None

Learning Guide Contents

Chapter 1: Introduction to the Autodesk Advance Steel Software

- 1.1 Introduction to Autodesk Advance Steel
- 1.2 Overview of the Interface
- 1.3 Viewing the Model
- 1.4 Helpful AutoCAD Tools
- 1.5 Working with the User Coordinate System (UCS)
- 1.6 Using the Autodesk Advance Steel Modify Commands

Chapter 2: Building Models

- 2.1 Starting Autodesk Advance Steel Projects
- 2.2 Adding Structural Grids
- 2.3 Creating Levels
- 2.4 Modeling Columns and Beams
- 2.5 Adding Bracing
- 2.6 Integrating with the Autodesk Revit Software

Chapter 3: Creating Connections

- 3.1 Working with the Connection Vault
- 3.2 Editing Beam Intersections
- 3.3 Creating Plates
- 3.4 Adding Features to Plates and Beams
- 3.5 Adding Bolts and Welds
- 3.6 Creating Custom Connections

Chapter 4: Additional Model Objects

- 4.1 Adding Grating and Cladding
- 4.2 Modeling Ladders, Stairs, and Railings
- 4.3 Creating Concrete Objects
- 4.4 Special Parts

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Chapter 5: Model Verifications

- 5.1 Clash Check
- 5.2 Technical Check
- 5.3 Model Check
- 5.4 Joint Design

Chapter 6: Creating Fabrication Drawings

- 6.1 Numbering Objects
- 6.2 Tools for Creating Drawings
- 6.3 Using Drawing Styles
- 6.4 Running Drawing Processes
- 6.5 Modifying Detail Drawings
- 6.6 Revising Models and Drawings

Chapter 7: Bills of Materials and Numerical Control Files

- 7.1 Extract BOM Lists
- 7.2 Exporting Data to .NC and .DXF Files

Chapter 8: Advance Steel Prototypes

- 8.1 Editing a Prototype
- 8.2 Working with the Page Setup Manager
- 8.3 Title Block Drawing Frame

Chapter 9: Drawing Style Manager

- 9.1 Drawing Style Manager User Interface

Appendix A: Bill of Materials Template Editor

- A.1 BOM Template Editor User Interface

Appendix B: Management Tools

- B.1 Management Tools Defaults

Appendix C: User Sections

- C.1 Layers and Basic Elements
- C.2 Adding User Sections

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