



Overview

The Autodesk® 3ds Max® Essentials learning guide provides a thorough introduction to the Autodesk 3ds Max software that will help new users make the most of this sophisticated application, as well as broaden the horizons of existing, self-taught users. The guide instructs you on how to effectively use the software interface and navigate through the scenes. It explores the creation of 3D objects and how to bring in objects from other software such as Autodesk Revit, AutoCAD, and Civil 3D. Additionally, it teaches you to prepare the scenes for renderings by adding materials, lights, and cameras. Finally, the guide covers an understanding of various renderers included with the software as well as image creation and animation techniques.

The practices in this learning guide are primarily geared towards real-world tasks encountered by users of the Autodesk 3ds Max software in the Architecture, Interior Design, and Civil Engineering industries.

Advanced topics, such as character modeling, character animation, and rigging, are not covered in this learning guide



Duration

3 Days (08:30 – 16:00)



Pre-requisites

It is recommended that delegates have a working knowledge of one or more of the following:

- Drafting, design or engineering principles
- Experience with 3D modeling is recommended



Course Outline

Introduction to Autodesk 3ds Max

- Overview
- Visualization Workflow
- The Autodesk 3ds Max Interface
- File Commands
- Configure Paths
- Display Drivers
- Viewport Display and Labels

Autodesk 3ds Max Configuration

- Viewport Navigation
- Viewport Configuration and Settings
- Object Selection Methods
- Units Setup
- Layer and Object Properties

Assembling Project Files

- Data Linking and Importing
- Linking Files
- References

Basic Modeling Techniques

- Model with Primitives
- Modifiers and Transforms
- Sub-Object Mode
- Reference Coordinate Systems and Transform Centers
- Cloning and Grouping
- Polygon Modeling Tools in the Ribbon
- Statistics in Viewport

Modeling From 2D Objects

- 3D Modeling from 2D Objects
- The Lathe Modifier
- 2D Booleans
- The Extrude Modifier
- 3D Boolean Operations
- Using Snaps for Precision
- The Sweep Modifier

Materials

- Understanding Materials and Maps
- Material Shaders
- Managing Materials
- General Materials
- Scanline Materials
- Autodesk Materials
- Assigning Maps to Materials

- Opacity, Bump, and Reflection Mapping
- Arnold Materials
- The Material Explorer
- Scene Converter

Mapping Coordinates and Scale

- Mapping Coordinates
- Mapping Scale
- Spline Mapping

Introduction to Lighting

- Local vs. Global Illumination
- Standard Lighting
- Types of Standard Lights
- Shadow Types

Lighting and Cameras

- Photometric Light Objects
- Arnold Lights
- Cameras
- Background Images

Exposure Control, Daylight, and Rendering

- Exposure Control
- Daytime Lighting
- Rendering Options
- Arnold Renderer
- Scanline Renderer
- ART Renderer
- State Sets
- The Print Size Wizard

Animation

- Animation and Time Controls
- Walkthrough Animation
- Animation Output