

Autodesk 3ds Max Design Fundamentals

Learn the features, commands, and techniques for creating, editing, rendering, and Animations in Autodesk 3D Studio Max®. Using hands-on exercises, users will explore how to create renderings and animations for aesthetics and to enhance the marketing of their product.

Objectives

To teach users the basic commands necessary for professional designs, renderings and animations. After completing this class, users will be able to:

- Navigate the 3DS Max User Interfaces.
- Use the fundamental features of 3DS Max.
- How to Map Materials.
- How to Animate the Scene.
- How to Render Stills and Animated Files.

Duration

3 days

Typical Schedule

This class starts each day at 9:00 am and ends at 4:00 pm.

Prerequisites

Before using this guide, users should have a working knowledge of the following:

- 3D Modeling, Rendering and Animation principles.
- Microsoft® Windows® XP or Microsoft® Windows® 7.

Topics Covered

- Introduction to 3D Studio Max
 - GUI - Navigating the Working Environment
 - Basic Workflow
 - Preferences
 - Configure Paths
- Design Configuration
 - Viewport Navigation
 - Viewport Configuration
 - Object Selection Methods
 - Layer and Object Properties
- Basic Modeling Techniques
 - Primitives
 - Applying Transforms
 - Sub-Object Mode
 - Coordinate System for Transforms
 - Cloning and Grouping
 - Poly Modeling and Graphite Tools
- Modeling from 2D Objects
 - 3D Modeling from 2D Objects
 - 2D Modifiers
 - The Lathe Modifier
 - The Extruder Modifier
 - Sweep Modifier
 - 2D Boolean
 - Boolean Operations
 - Using Snaps
- Assembling Project Files
 - Data Linking and Importing
 - Reload a Modified Linked File
 - References
- Materials
 - Understanding Maps and Materials
 - Managing Materials
 - Standard Materials
 - Standard Shaders
 - Assigning Maps to Materials
 - Opacity, Bump and Reflection Mapping
 - Multi-Sub Object Materials
 - Mental Ray Materials
 - The Material Explorer
- Mapping Coordinates and Scale
 - Mapping Coordinates
 - Mapping Scale
 - Spline Mapping
- Introduction to Lighting
 - Local versus Global Illumination
 - Standard Lighting
 - Type of Standard Lights
 - Shadow Types
- Lighting and Rendering
 - Photometric Light Objects
 - Exposure Control
 - Daytime Lighting
- Mental Ray Rendering
 - Fundamentals of Mental Ray
 - Mental Ray Interior Rendering
 - Controlling Mental Ray Quality
 - Mental Ray Proxies
- Rendering and Cameras
 - Rendering Options
 - Rendering Presets
 - Iterative Rendering
 - Single versus Double Sided Rendering
 - State Sets
 - Cameras
 - Background Images
 - Print Size Wizard
- Animation
 - Animation and Time Controls
 - Walkthrough Animation
 - Animation Output

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