

Autodesk 3ds Max Design Fundamentals

Course | 3 days

Class Hours | 8:30am - 4:30pm



Autodesk 3ds Max Design Fundamentals is a course for beginner users wanting to learn about 3D environments using 3ds Max for design visualization purposes. Objectives include creating, manipulating, and importing 3D data; embellishing scenes with use of materials and maps; creating lighting for you environments; animating objects; and rendering still pictures and animations.

Prerequisite: Working knowledge of Windows Operating Systems and a general knowledge of a CAD application such as Autodesk AutoCAD, Autodesk Revit or Autodesk Civil 3D.



Autodesk
Authorized Training Center
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Authorized Certification Center

Visit mwcad.com for a complete class schedule or call us at 800-279-3221.

* The suggested course duration is a guideline. Course topics and timeline may be modified by the Instructor based upon the knowledge and skill level of the course participants.

What students are saying about our courses:

"I loved how the instructor focused the materials to our needs and uses. Great course!"

- Matthew Crockett, Aquaterra Environmental Solutions

"I really enjoyed the class and learned a great deal. I have used what I learned every day since I have returned to work."

- Marc Atchley, Farmland Foods

User Interface

User Interface Components

- Working in the User Interface
- Menus and Toolbars
- The Status Bar

Command Panels

- Using the Command Panel
- Setting up the Project Folder and Configuring User Paths

Viewport Configuration and Navigation

- Viewport Label Menus
- Viewport Rendering Modes
- Object Selection Methods

Basic Functions

- Modeling with Primitive Objects
- Cloning/Grouping
- Graphite Modeling Tools
- Sub-Object Modes
- Reference Coordinate Systems
- Statistics in the Viewport

Starting a Visualization Project

Max Design Configuration

- Video modes
- Configuring Paths and Units
- Customizing the User Interface

Assembling Project Files

- Data Linking and Importing
- Layer and Object Properties

3D Modeling from 2D Objects

- Drawing 2D Lines
- Modifiers
- Boolean Operations
- Using Snaps for Precision

Materials

Introduction to Materials

- How Materials Work
- Understanding Maps and Materials
- Material Libraries
- Managing Materials

Material Types and Parameters

- Standard Materials
- Multi/Sub-Object Materials
- Opacity, Bump and Reflection Mapping
- mental ray Shaders and Materials
- Arch and Design Materials
- ProMaterials
- Other Material Types
- mental ray Multi/Sub-Map Shader

Mapping Coordinates and Scale

- Mapping Coordinates
- Mapping Scale
- Spline Mapping

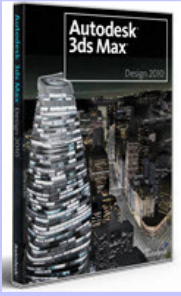
Intro to Max Design Lighting

Max Design Lighting Overview

- Local vs. Global Illumination
- Lighting Strategies

Standard and Photometric Lighting

- Fundamentals of Standard Lighting
- Standard Lights
- Shadow Types
- Photometric Light Objects
- Exposure Control
- Daytime Lighting
- Soft Shadows and Ambient Occlusion



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Lighting and Rendering using mental ray

Scene Preparation for mental ray

- Fundamentals of mental ray

Rendering with mental ray

- mental ray Interior Rendering
- Controlling mental ray Quality
- mental ray Proxies

Rendering and Animation

Rendering

- Iterative Rendering
- Single vs. Double Sided Rendering
- Camera Parameters
- Background Images
- Print Size Wizard
- Selected Rendering Options
- Rendering Presets

Animation

- Animation Controls
- Walkthrough Animation
- Animation Output

Appendix

- 3ds Max Design Help
- Object Substitution
- Completing the Interior Scene
- Camera Matching
- Lighting Analysis
- Creating a Shadow Study Animation
- Creating Hierarchies
- Animating Visibility
- Creating an Assembly Animation