

Autodesk 3ds Max / 3ds Max Design Essentials

Course description

Autodesk 3ds Max is used by leaders in the gaming, film and television industries to produce stunning 3D content. Autodesk 3ds Max Design provides a comprehensive 3D modelling, animation and rendering solution to architects, designers and engineers.

Autodesk 3ds Max / 3ds Max Design Essentials training provides an ideal starter for all users of the 3ds Max and 3ds Max Design applications from all industries and backgrounds.

The course is short and intensive, combining demonstration and hands-on practice. Whilst the course is primarily generic, where appropriate the exercises carried out by delegates are relevant to their industry.

Course duration: 3 days

Courseware provided: Autodesk Official Training Courseware, the most comprehensive 3ds Max training materials available.

Objectives

To introduce the basic functionality, features and principles behind 3ds Max / 3ds Max Design and teach key theory and techniques that you need to use the application effectively.

Who should attend

New users of Autodesk 3ds Max or Autodesk 3ds Max Design from all industries, including:

- Game developers.
- Artists and animators who produce film and video content.
- Architects, designers and engineers.

Upon successful completion of this course you will be able to:

- Work in a production environment.
- Understand the mechanics of 3ds Max.
- Create 3D models using a variety of techniques.
- Work with materials to texture you models.
- Understand how to light a scene.
- Create animations.
- Stage a scene and understand cinematography.
- Create output for use in post production.

Prerequisites

Delegates must have a working knowledge of:

- A recent version of Microsoft Windows.
- An Autodesk CAD application, such as AutoCAD or Autodesk Revit.

Course outline

Day 1

Introduction

- Understanding the 3D environment

User Interface

- Touring the interface
- Viewports
- Command Panels
- Other UI Elements

File I/O

- Starting a Project
- Saving Files
- Hold/Fetch
- Merging Files
- Import/Export
- File Linking

Getting Started

- Setting Preferences correctly
- Object Creation
- Object Selection
- Scene Management

Transforming Objects

- Transform Tools
- Coordinate Systems
- Snaps
- Align Tools
- Making Duplicates
- Other Transforms

Modifying Objects

- Basic Concepts
- Modifier Examples

Day 2

Modelling

- Modeling with 3D Geometry
- AEC Techniques
- Spline theory
- Creating and editing 2D spline shapes
- Create 3D objects from 2D shapes
- Working with Splines
- Using Shape Modifiers
- Using Lofts
- Creating multiple model concepts from one idea (lab)
- Polygon theory
- Creating and editing 3D polygon objects
- Add detail to the building concept lab (lab)

Materials and Mapping

- The principles of materials and a surface
- Introduction to the materials editor
- Different types of material
- Applying materials
- Making materials by hand (lab)
- Using 2D maps
- Introduction to UVW Mapping
- Editing UVW map coordinates
- Applying materials & maps to the building concept lab (lab)
- Introduction to mental ray materials
- Applying and editing mental ray materials
- Applying mental ray materials to the building concept and comparing them to standard materials (lab)

Day 3

Cameras

- Camera Types
- The Moving Camera

Lights

- Introduction to direct lighting
- Creating 3 point and dome lighting rigs
- Shadows and shadow theory
- How to get the most from using shadows by adjusting their parameters
- Using sky light and light tracer for external scenes
- Colour light theory
- Using lights in mental ray
- The daylight system
- Photorealistic lighting using global illumination and final gather in Mental Ray

Animation

- General principles
- Working with key-frames
- Animating objects
- Working with the track view editor
- Animating an object with key-frames (lab)
- Understanding animation controllers
- Working with object hierarchies
- Animating bipeds (lab)

Rendering

- Render Scene Dialog
- Scene States
- Batch Render

Please note: Course topics may be modified by the instructor based upon the knowledge and skill level of the course participants.

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