4D Technologies

CADLearning™
Autodesk® 3ds Max® Tutorial Series

Autodesk 3ds Max & 3ds Max Design 2011 Tutorial Series

Course Details

- Over 10 hours of training
- 208 video tutorials
- Exercise files included
- Instructor: Steven Schain

Course Description:

Learn features and functions of Autodesk® 3ds Max® and Autodesk® 3ds Max® Design. Follow the workflow of producing 3D animations, cover pre-production planning, apply materials and light scenes, animate cameras and objects, assemble short sequences, utilize Lighting Analysis tools in Design, and avoid long render times.

Lesson Outline:

Getting Started

- Course Introduction
- Learning Objectives
- Configure 3ds Max and 3ds Max Design
- Units Setup
- Set Display Units to Architectural
- Project Setup
- Create Prototype File
- Default UI and Presets
- Maximizing the Workspace
- User Interface and Default Presets

Pre-Production

- The Storyboard as a Graphical Outline
- Sketch Style Storyboard
- Sample Storyboard
- Scene Level of Detail
- Level of Detail
- File Output
- Output for Print/Web
- Still Image Output
- Output of Animations
- Animation Output
- Working with Layers

Modeling

- Modeling in 3ds Max
- Open 2D Shapes
- Incremental Files
- Cloning Shapes
- Outline Shapes
- Attaching Shapes
- Closed 2D Shapes
- Trim and Weld
- Fillet Vertex
- Mesh and Poly Objects
- Editable Poly Object Type
- Convert Object Type
- Graphite Modeling Tools
- Paint Deform Tool
- 2D and 3D Objects
- Compound Objects
- ShapeMerge
- Align Road
- More Editable Poly
- Merge Objects
- Introduction to Caddies
- Modeling Windows
- Modeling a Window Frame
- Modeling a Window Pane
- Modifiers and Modifier Stack
- Object Space Modifiers
- Bevel Profile Modifier
- Edit Shape
- Stacking Modifiers
- Edit Modifiers
- World Space Modifier
- Map scalar modifier

Materials

- Materials
- Slate Material Editor
- Schematic Material creation
- Arch & Design Material
- Shaders
- Create a Material
- Assign a Material
- Map Patterns
- Simulate Geometry
- Set Transparency
- Mapping
- Tiles Map

Autodesk
Authorized Publisher

- Size of Area
- UVW Map Modifier
- Multiple Materials
- Multi/Sub-Object Material
- Set Material ID Number
- Edit Material ID Number
- Multi/Sub-Object Material Assignment
- Blend Material and Mask Maps
- Blend Material
- Masking
- Material Libraries
- Autodesk Material Library
- Creating a New Library

Lighting

- Direct and Indirect Light
- Daylight
- Placing a Daylight System
- Adjusting Location
- Adjusting Physical Sky
- Photometric Lights
- Enabling Streetlights in a Scene
- Photometric Light Presets
- Indirect Light
- Calculate Indirect Illumination
- Final Gather
- Final Gather Bounces
- Sky Portals
- Global Illumination
- Interior Night Lighting
- Photometric Web Files
- Enabling Global Illumination

Rendering

- Rendering
- Still Images
- Concept of Image Resolution for Stills
- Still Rendering Resolution
- Render Presets
- Image File Types
- Still File Types
- Rendering Animations
- Image Resolution for Animations
- Set Animation Resolution
- Setting File Type for Animation
- Render Sequential Images
- RAM Player
- Codecs

Cameras

- The Importance of the Camera
- Camera Shots
- Camera Distance
- Viewer Distance
- Camera Angle Controls Emotion
- Adjust Camera Angles
- Composition
- Rule of Thirds Composition
- Rule of Thirds
- Diagonals
- Establish Diagonals

Animation

- Animation Concepts
- Object Animation
- Keyframe Animation
- Keyframe a Moving Object
- Path Animation
- Animate on a Path
- Velocity Control
- Apply an Ease Curve
- Overview of Camera Animation
- Separate Camera Position and Rotation Control
- Animate Dummy on Path
- Hierarchical Link

Scene Assembly

- Scene Assembly
- Concept of Short Scenes
- Introduction to Video Post
- Video Post Queue
- Indicating Change of Time or Place
- Crossfade Transition
- Using Image Layers
- Concepts of Scene Layering
- Autodesk Composite
- Compositing Multiple Layers

Output

- Final Output
- Using Scene States
- Set up Scene States for Rendering
- Understand Batch Rendering
- Set up a Batch Rendering Queue
- Still Image Output
- Print resolution
- Print Size Control
- Gamma Correction
- Setting Gamma Correction
- Special Use Image
- Panorama Exporter
- Creating a Panorama File
- Cinema Output
- OpenEXR Files

LEED Lighting Analysis

- Introduction to Lighting Analysis
- What is Lighting Analysis?
- Who Uses Lighting Analysis?
- How is Lighting Analysis Used?
- Integration into 3ds Max Design
- Application of LEED Certification
- What is LEED Certification?
- Where Does 3ds Max Fit in?
- Lighting Analysis UI in 3ds Max Design
- Lighting Analysis Menu
- Lighting Analysis Assistant
- Scene and Modeling Issues for Lighting Analysis
- Window Model Detail
- Building to Scale
- An Overview of 3D Lighting Design
- Daytime Interiors

Lighting the Scene

- Lighting the Scene
- Creating a Ground Plane
- The Daylight System Overview

- Adding a Daylight System
- Configuring the Daylight System
- Skylight Portals
- Exposure Control

Scene Materials

- Overview
- Identifying Scene Materials
- Material for the Ground Plane
- Beige Wall Paint Material
- The BRDF Function Curve
- Window and Frame Materials
- The Multi/Sub-Object Material
- Autodesk Material Glazing for Windows
- Autodesk Material Metal for the Window Frames

Lighting Analysis for Presentation

- Overview
- Lighting Analysis Tools
- Lighting Analysis Assistant
- Light Meters
- Lighting Analysis Image Overlay

Rendering an Analysis

- Rendering a Complete Analysis
- Manually Adjusting Exposure
- Manually Configuring mental ray
- Setting Common Rendering Settings
- Rendering a Final Image
- Using Grab Viewport

Effects and Dynamics

- Particle Effects
- Particle Flow
- IK
- Rigging
- Reactor Dynamics
- Rigid Body Dynamics

Scripting

- Maxscript
- Scripted Objects

System Requirements

CD-DVD/ROM Version requires:

- Microsoft Windows® XP(32), Vista, 7
- Internet Explorer 6.0+
- Adobe® Flash® Plugin
- 512 MB Ram
- 1 GB Processor or faster
- 1024x768 color display
- 5.5 GB hard disk space required for installation
- DVD-ROM drive for install only
- Mouse (or pointing device) needed for navigation
- Sound Card and Speakers

Online Version requires:

- Internet Browser
- Adobe® Flash Plugin
- Internet Connection (High-Speed Recommended)