AUTOCAD 220 - 3D DRAWING & MODELING TRAINING COURSE SYNOPSIS

AutoCAD 220 3D Drawing and Modeling introduces students who are proficient with the 2D commands in the AutoCAD® software to the concepts and methods of 3D modeling. This class provides a thorough grounding in the fundamentals of 3D and explores the main features of the advanced 3D Modeling workspace in the AutoCAD software.

PREREQUISITES FOR THIS AUTOCAD 220 - 3D DRAWING & MODELING TRAINING COURSE

A working knowledge of basic design/drafting procedures and terminology. A working knowledge of your operating system.

WHAT YOU WILL LEARN IN AUTOCAD 220 - 3D DRAWING & MODELING

- 3D viewing techniques
- Working with simple and composite solids
- Creating complex solids and surfaces
- Modifying objects in 3D space
- Editing solids
- Creating sections, camera perspectives, and animations
- Working with point clouds
- Converting 3D objects
- Setting up a rendering with materials and lights
- Creating 2D drawings from 3D models
- Working with the User Coordinate System

AUTOCAD 220 - 3D DRAWING & MODELING TRAINING COURSE LENGTH AND TIME

This class is 3 days long. Class time is 9:00 a.m. - 4:00 p.m. Breaks are scheduled throughout the day and lunch is typically scheduled 12-1. Students provide their own lunch.

ENROLLMENT IN AUTOCAD 220 - 3D DRAWING & MODELING TRAINING COURSE

Please see our Enrollment Page (http://www.ledet.com/enroll) for our enrollment form. Please contact our Client Care Department at (877) 819-2665 for additional savings on our bootcamp classes or other specials.

AUTOCAD 220 - 3D DRAWING & MODELING TRAINING COURSE LOCATIONS

We have training centers in Atlanta, Chicago, Denver, San Diego and Washington DC. We also offer classes at a network of rental facilities. We offer private onsite training and instructor-led, live online training. If coming to a rental facility, please double-check the location of your class with our office to make sure you get to the right location.

GOALS FOR AUTOCAD 220 - 3D DRAWING & MODELING TRAINING COURSE

Sterling Ledet and Associates realizes the importance of education and we take pride in being able to offer you classes that are more custom fit to your needs. Call us at (877) 819-2665 if you have any special questions or e-mail us at sales@ledet.com.
AutoCAD 220 - 3D Drawing & Modeling

LESSON 1 - 3D FOUNDATIONS
Why Use 3D?
Types of 3D Models
Introduction to the 3D Modeling Workspace
3D Ribbon Panels
Basic 3D Viewing Tools
Preset 3D Views
Orbiting in 3D
Using Visual Styles
3D Navigation Tools
ViewCube
SteeringWheel
3D Navigation Tools
Introduction to the User Coordinate System (UCS)
Dynamic UCS

LESSON 2 - SIMPLE SOLIDS
Working with Solid Primitives
Drawing Solid Primitives
Editing Solid Primitives
Solid Primitive Types
Creating Boxes and Wedges
Creating Pyramids
Creating Cylinders and Cones
Creating Spheres and Tori
Creating Wall-like Solids with Polysolid
Working with Composite Solids
Modifying Composite Solids
Working with Mesh Models
Creating Mesh Primitives
Creating Mesh Models from Objects
Editing Mesh Models
Convert From Mesh Models

LESSON 3 - WORKING WITH THE USER COORDINATE SYSTEM
UCS Basics
UCS Icon
Moving the UCS Origin
Moving the UCS to a Face
Moving the UCS Using 3 Points
UCS X, Y, and Z Commands
UCS Multi-functional Grip
Saving a UCS by Name
Working with Named UCSs

LESSON 4 - CREATING SOLIDS & SURFACES FROM 2D OBJECTS
Complex 3D Geometry
Creating Surfaces and Solids
Extruded Solids and Surfaces
Presspull
Modifying Extrusions
Swept Solids and Surfaces
Modifying Sweeps
3D Paths
Revolved Solids and Surfaces
Modifying Revolves
Lofted Solids and Surfaces
Modifying Lofts
NURBS Surfaces
Creating NURBS Surfaces
Edit NURBS Surfaces
Converting Objects to Solids
Converting 2D Objects to Solids
Converting Surfaces to Solids
Converting Solids or Surfaces to Wireframe

LESSON 5 - MODIFYING IN 3D SPACE
3D Gizmo Tools
Aligning Objects in 3D Space
Align Command
3D Align Command
3D Modify Commands
Move and 3D Rotate
3D Scale
Mirroring Objects in 3D
Arraying Objects in 3D
Working with 3D Modify Commands

LESSON 6 - ADVANCED SOLID EDITING
Editing Components of Solids
Editing Faces
Editing Edges
Editing Vertices
Modification Options
Editing Faces of Solids
Extruding Faces
Offsetting Faces and Edges
Moving Faces
Rotating Faces
Tapering Faces
Removing Faces
Copying Faces
Fillets and Chamfers on Solids

LESSON 7 - ADDITIONAL EDITING TOOLS
Creating a Shell
Imprinting Edges of Solids
Slicing a Solid along a Plane
Interference Checking
Converting Objects to Surfaces
Creating Planar Surfaces from 2D Objects
Converting 2D Objects to Surfaces
Converting Solids to Surfaces

LESSON 8 - REFINING THE VIEW
Working with Sections
Setting the Section Plane
Working with Live Sections
Generating Sections from Section Planes
Working with Cameras
Adjusting a Camera
Clipping Camera Views
Managing Views in 3D
Modifying Views
Animating with ShowMotion
Creating ShowMotion Shots
Creating Animations
Using Walk and Fly
Animating a Walkthrough
Animation Motion Paths

LESSON 9 - POINT CLOUDS
Point Clouds
Attach Point Cloud
Point Cloud Contextual Tab
Object Snap
Dynamic UCS

LESSON 10 - VISUALIZATION
Creating Visual Styles
Visual Style Settings
Working with Materials
Using the Materials Browser Libraries
Adding Materials
Attaching Materials by Layer
Material Editor
Texture Editor
Specifying Light Sources
Default Lighting
Sunlight
User-Defined Lights
Modifying Lights
Rendering Concepts
Adjusting the Exposure
Render Presets Manager
AutoCAD 220 - 3D Drawing & Modeling

LESSON 11 - WORKING DRAWINGS FROM 3D MODELS

Creating Multiple Viewports
2D Views from 3D Solids
Creating Hidden Line Views
Creating Profiles from Solids.
Creating Technical Drawings with Flatshot
Technical Drawings with Flatshot
3D Model Import
Automatic Model Documentation
Adding Base Views
Adding Projected Views
Editing Drawing Views