

AutoCAD 2018

760 lessons : 52:39:13 (hh:mm:ss)

Description:

CADLearning for AutoCAD® 2018 teaches the use of AutoCAD 2018 as a world-class 2D and 3D design application. Its innovative interface, in combination with its powerful 3D tools, allows users to create nearly any design imaginable. The systematic project management tools make it easy to keep track of even the most complicated projects, and it makes for efficient coordination with colleagues. Its documentation and presentation tools allow users to share impressive presentations for both collaborators and clients.

- **Getting Started**

- Introducing the Start Tab
- Understanding How Tools are Organized
- Understanding Color Schemes
- Switching Workspaces
- Adjusting Workspace Settings
- Using the Application Menu
- Using the Quick Access Toolbar
- Using the InfoCenter
- Using and Controlling the Help System
- Understanding Ribbon Fundamentals
- Controlling the Display of the Ribbon
- Changing the Location of the Ribbon
- Working with Floating Panels
- Introducing the Status Bar
- Introducing the Drawing Grid
- Changing Screen Colors
- Working with User Profiles
- Working Within the Drawing Window
- Working with Multiple Drawings
- Understanding Model and Layout Tabs
- Understanding File Tabs
- Understanding the Command Line
- Typing Commands
- Understanding Dialog Box Fundamentals
- Understanding Palette Fundamentals
- Starting a New Drawing from a Template File
- Setting the Default Drawing Template File
- Saving Drawings Using SAVE and QSAVE
- Saving Drawings Using QSAVE and SAVEAS
- Understanding the Autosave Options
- Understanding Backup Files
- Saving Drawings to Different Versions and Other Save Options
- Opening Drawings in Partial Open and Read-Only Modes
- Opening Drawings Using the Sheet Set Manager
- Importing and Exporting DGN Files

- Using a Mouse in AutoCAD
- Understanding the In-Canvas Viewport Controls
- Understanding the Navigation Bar
- Understanding the UCS Icon
- Understanding the ViewCube
- Understanding the SteeringWheels
- Understanding the Pull-Down Menus
- Using CleanScreen
- Using a 3D Mouse
- **2D Drawing Basics**
 - Drawing Lines Using the Command Line
 - Drawing Lines Using Dynamic Input
 - Drawing Lines Using the Right-Click Menu
 - Repeating the Last Command
 - Understanding Command Options
 - Drawing Rectangles
 - Drawing Rectangles Using the Area Option
 - Drawing Rectangles Using the Dimensions Option
 - Drawing Rectangles Using the Rotation Option
 - Drawing Rectangles with Fillets
 - Drawing Rectangles with Chamfers
 - Drawing Rectangles Using the Width Option
 - Resetting the Rectangle Default Options
 - Using the Undo and Redo Commands
 - Drawing Circles Using Radius and Diameter
 - Drawing 2 Point and 3 Point Circles
 - Drawing Circles Using the TTR and TTT Options
 - Drawing Circles Using the Default Method
 - Drawing Arcs
 - Drawing Arcs by Specifying 3 Points
 - Understanding Coordinate System Concepts
 - Using Absolute Coordinates
 - Using Relative Coordinates
 - Understanding Drawing Units and Angle Measurements
 - Erasing Objects by Picking
 - Selecting Objects by Window and Crossing
 - Selecting Objects by Window Polygon and Crossing Polygon
 - Selecting Objects by Fence and Last
 - Selecting Objects Using Undo and Previous
 - Selecting Objects Using the Box Option
 - Selecting Objects Using Implied Selection
 - Selecting Objects Using a Lasso
 - Selecting Objects Using Select Similar
 - Adding New Objects Using Add Selected
 - Hiding and Isolating Objects
 - Restoring Erased Objects with OOPS
 - Selecting and Deselecting Objects
 - Selecting All Objects

- Controlling Selection Settings
- Using Selection Cycling
- **Drafting Settings**
 - Using and Adjusting the Grid
 - Using Snap Mode
 - Using Ortho Mode
 - Using Direct Distance Entry and Dynamic Input
 - Using Polar Tracking with Absolute Angles
 - Using Polar Tracking with Relative Angles
 - Using Polar Tracking and Polar Snaps
 - Using Polar Tracking with Incremental and Additional Angles
 - Understanding Object Snap Concepts
 - Understanding Running Object Snaps
 - Understanding Parallel Object Snap
 - Understanding Extension Object Snap
 - Snapping to Closed Polylines
 - Using the Object Snap Overrides
 - Using Object Snap Tracking from One Point Orthogonally
 - Using Object Snap Tracking from Two Points Orthogonally
 - Using Object Snap Tracking from One Point with Polar Angles
 - Using Object Snap Tracking from Two Points with Polar Angles
 - Using Object Snap Tracking with a Temporary Track Point
 - Using Object Snap Overrides with Mid Between 2 Points
 - Using Options to Control Object Snap System Variables
- **Display Control**
 - Zooming and Panning Using the Mouse Wheel
 - Using Real-Time Pan and Zoom
 - Zooming Using the Ribbon
 - Panning Using the Ribbon Panel
 - Zooming and Panning Using the Navigation Bar
 - Using the View Back and View Forward Tools
 - Using the SteeringWheels
 - Creating Tiled Viewports
 - Naming Tiled Viewports
 - Resizing Tiled Viewports
 - Using the View Manager to Restore Named Views
 - Using the View Manager to Edit and Update Named Views
 - Using the View Manager to Create Named Views
- **Managing Layers**
 - Introducing Layer Concepts
 - Establishing the Current Layer
 - Understanding the On and Off Layer States
 - Understanding the Freeze and Thaw Layer States
 - Understanding the Unlock and Lock Layer States
 - Understanding the Lock Layer Fade Control
 - Controlling the Layer Color
 - Introducing the Layer Properties Manager Palette
 - Adjusting Columns in the Layer Properties Manager

- Controlling the Linetype of a Layer
- Controlling the Transparency of a Layer
- Controlling the Plot or No Plot Layer State
- Controlling the Viewport Freeze Layer State
- Controlling the New Viewport Freeze Layer State
- Creating a New Layer Frozen in All Viewports
- Freezing Layers in All But the Current Viewport
- Freezing Layers in All Viewports
- Thawing Layers in All Viewports
- Isolating Selected Layers
- Merging Layers Using the Layer Properties Manager
- Adjusting Other Layer Settings Using the Shortcut Menu
- Controlling Other Layer States on a Per-Viewport Basis
- Creating a New Layer
- Deleting a Layer
- Adding a Layer Description
- Using Layer Filters
- Creating New Layer Filters
- Working with Layer States
- Setting the Current Layer by Selecting an Object
- Matching Layers
- Restoring the Previous Layer State
- Isolating Layers
- Unisolating Layers
- Freezing Layers
- Turning Layers Off
- Turning All Layers On
- Thawing All Layers
- Locking a Layer
- Unlocking a Layer
- Changing an Object to the Current Layer
- Copying Objects to a New Layer
- Viewing Individual Layers
- Freezing Layers in All Viewports Except the Current Viewport
- Merging Layers Using the LAYMRG Command
- Deleting a Layer and Its Contents
- **Object Properties**
 - Understanding ByLayer and Object Property Concepts
 - Setting the Color ByLayer
 - Setting the Linetype ByLayer
 - Setting the Lineweight ByLayer
 - Setting the Transparency ByLayer
 - Controlling the Object Color
 - Controlling the Object Linetype
 - Controlling the Object Lineweight
 - Controlling the Object Transparency
 - Understanding Object Property Creation and Control
 - Modifying Properties Using the Property Panel and Layer Panel

- Modifying Properties Using the Quick Property Palette
- Controlling the Quick Property Palette Display Properties
- Modifying Properties Using the Properties Palette
- Setting Object Properties to ByLayer
- Understanding In-Canvas Property Preview
- **Utility and Inquiry Tools**
 - Introducing the Measure Tools
 - Measuring Distance
 - Measuring Radius
 - Measuring Angles
 - Measuring the Area of a Space
 - Measuring the Area of an Object
 - Performing Area Calculations
 - Measuring Volume
 - Using the Quick Calculator
 - Applying Object Selection Filters
 - Using Quick Select
 - Listing Selected Objects
 - Displaying the Coordinates of a Point
- **Complex Objects**
 - Understanding Polyline Property Concepts
 - Drawing Polyline Line Segments
 - Drawing Polyline Arc Segments
 - Drawing Polylines with Variable Width
 - Drawing Polylines Using Option Combinations
 - Drawing Donuts
 - Drawing Inscribed Polygons
 - Drawing Circumscribed Polygons
 - Drawing Polygons Using the Edge Option
 - Editing Polylines Using the Close and Open Options
 - Editing Polylines to Join Selected Segments
 - Editing Polylines to Join Multiple Segments
 - Converting Lines into Polylines
 - Converting Polylines into Fit and Spline Curves
 - Editing Polyline Vertices
 - Exploding Polylines
 - Drawing Ellipses Using the Center Option
 - Drawing Ellipses Using the Axis End Option
 - Drawing Isocircles
 - Drawing Elliptical Arcs
 - Drawing Points
 - Understanding Point Styles
 - Drawing Splines
 - Editing Splines
 - Drawing Construction Lines
 - Creating Rays
 - Creating Regions
 - Creating Boundaries

- Creating Revision Clouds
- Creating Wipeouts
- **Annotation Objects**
 - Understanding Annotation Object Concepts
 - Creating Single-Line Text
 - Controlling Single-Line Text Justification
 - Creating Text Styles
 - Modifying Text Styles
 - Creating Multiline Text
 - Controlling Multiline Text Justification
 - Editing Text Objects
 - Editing Text Objects Using the Properties Palette
 - Performing a Spell Check
 - Finding and Replacing Text
 - Controlling Multiline Text Paragraphs
 - Combining Multiple Paragraphs
 - Converting Text to Uppercase or Lowercase
 - Adding a Background Mask to Multiline Text
 - Adding a Border Around Text
 - Importing Text
 - Importing Text Using Drag-and-Drop and Cut-and-Paste
 - Inserting Special Text Characters
 - Removing Multiline Text Formatting
 - Undoing and Redoing Changes to Multiline Text
 - Creating Stacked Text for Fractions
 - Controlling Text Editor Settings
 - Scaling Text
 - Changing the Text Justification
 - Matching Text Properties
 - Aligning Text
 - Creating Tables
 - Controlling Table Appearance Using Table Styles
 - Editing Text Inside a Table
 - Modifying Tables
 - Linking Data in Tables
 - Working with Fields
 - Introducing Hatches and Gradient Fills
 - Adding Hatch Objects
 - Selecting the Hatch Pattern to Apply
 - Setting the Hatch Pattern Layer
 - Setting the Hatch Colors and Transparency
 - Setting the Scale and Angle of the Hatch Pattern
 - Controlling Hatch Pattern Island Detection
 - Selecting and Retaining Boundary Objects
 - Controlling the Hatch Pattern Gap Tolerance
 - Understanding Associative Hatch
 - Controlling the Hatch Origin
 - Creating Separate Hatches

- Matching the Properties of an Existing Hatch
- Controlling Hatch Pattern Draw Order
- Controlling Hatch Settings
- Modifying Existing Hatch Objects
- Adding Gradient Fills
- Adding Hatch Patterns and Gradient Fills Using the Tool Palette
- Introducing Multileaders
- Creating Multileaders
- Changing the Order of Multileader Content Creation
- Selecting Multileader Options
- Adding a Multileader with Block Content
- Controlling the Multileader Style
- Adding and Removing Leaders
- Aligning Multileaders
- Collecting Multileaders
- Editing Multileaders
- Using the Copy Command with Object Snap
- **Modify Objects - Manipulation Commands**
 - Introducing the Manipulation Commands
 - Using the Move Command
 - Using the Move Command with Object Snap
 - Using the Move Command with Object Snap Tracking from One Point
 - Using the Move Command with Object Snap Tracking from Two Points
 - Using the Copy Command
 - Using the Copy Command with Object Snap Tracking
 - Using the Copy Command with the Array Option
 - Using the Copy Command with Object Snap
 - Using the Mirror Command
 - Controlling Text Display with the Mirror Command
 - Controlling Hatch Display with the Mirror Command
 - Creating a Rectangular Array
 - Adjusting Rectangular Array Rows and Columns
 - Changing the Properties of Rectangular Arrays
 - Editing Array Source Objects
 - Removing Items from the Array
 - Changing the Angle of Rectangular Arrays
 - Creating Associative and Non-Associative Arrays
 - Creating a Polar Array
 - Adjusting Polar Arrays
 - Creating a Path Array
 - Changing the Base Point of a Path Array
 - Changing the Path of a Path Array
 - Replacing Items within an Array
 - Using the Rotate Command
 - Using the Rotate Command with a Reference Angle
 - Using the Offset Command
 - Offsetting Polylines with Fillets and Chamfers
 - Using the Align Command

- Using the Reverse Command
- Creating and Working with Groups
- Modifying Groups
- **Modify Objects - Alteration Commands**
 - Introducing Alteration Commands
 - Breaking an Object at One Point
 - Breaking an Object Between Two Points
 - Understanding Practical Uses for the Break Command
 - Using the Trim Command with Pick Selection
 - Using the Trim Command with Fence Selection
 - Using the Trim Command with Edge Extend Mode
 - Using the Extend Command
 - Using Extend and Trim Together
 - Understanding Practical Uses for the Trim and Extend Commands
 - Using the Fillet Command with Fillet Radius
 - Adding Fillets to Multiple Segments and Polylines
 - Using the Chamfer Command with Distance and Angle
 - Adding Chamfers to Multiple Segments and Polylines
 - Using the Blend Command
 - Using the Stretch Command
 - Using the Join Command
 - Using the Lengthen Command
 - Using the Explode Command
 - Deleting Duplicate Objects
 - Using the Scale Command
 - Using the Scale Command with Scale Reference
- **Modify Objects - Grips**
 - Introducing Grip Concepts
 - Understanding Grip Status
 - Using Grips to Modify Lines
 - Using Grips to Modify Arcs
 - Using Grips to Modify Hatch Objects
 - Using Grips to Modify Polylines
 - Using Grips to Modify Splines
 - Using Grips to Move Objects
 - Using Grips to Mirror Objects
 - Using Grips to Rotate Objects
 - Using Grips to Scale Objects
 - Using Grips to Stretch Objects
 - Changing the Base Point While Grip Editing
 - Copying Objects While Grip Editing
 - Changing the Reference Angle While Grip Editing
 - Understanding Practical Applications of Grip Editing
 - Changing Grip Option Settings
 - Changing Grip Option Selection Modes
 - Dragging While Grip Editing
 - Moving Objects Using Nudge

- **2D Parametric Drawings**

- Introducing Parametric Drawings
- Displaying Geometric Constraints
- Applying Geometric Constraints
- Applying Coincident Geometric Constraints
- Applying Collinear Geometric Constraints
- Applying Concentric Geometric Constraints
- Applying Fixed Geometric Constraints
- Applying Parallel Geometric Constraints
- Applying Perpendicular Geometric Constraints
- Applying Horizontal Geometric Constraints
- Applying Vertical Geometric Constraints
- Applying Tangent Geometric Constraints
- Applying Smooth Geometric Constraints
- Applying Symmetric Geometric Constraints
- Applying Equal Geometric Constraints
- Removing Individual Geometric Constraints
- Applying Auto Constrain
- Controlling Auto Constraint Settings
- Applying Geometric Constraints Using Inferred Constraints
- Applying Dimensional Constraints
- Applying Linear Dimensional Constraints
- Applying Aligned Dimensional Constraints
- Applying Horizontal Dimensional Constraints
- Applying Vertical Dimensional Constraints
- Applying Angular Dimensional Constraints
- Applying Radius Dimensional Constraints
- Applying Diameter Dimensional Constraints
- Creating Dynamic or Annotational Dimensional Constraints
- Converting Dimensions into Dimensional Constraints
- Controlling Dimensional Constraint Settings
- Showing and Hiding Dimensional Constraints
- Controlling Other Dimensional Constraint Settings
- Avoiding Over-Constrained Geometry
- Understanding the Parameters Manager
- Changing an Expression Using the Parameters Manager
- Adding User Variables Using the Parameters Manager
- Deleting Parameters Using the Parameters Manager
- Changing Dimensional Constraints Using Grip Editing

- **Dimensioning**

- Introducing Dimensioning
- Understanding Associative Dimensions
- Setting the Dimension Layer
- Creating Linear Horizontal and Vertical Dimensions
- Creating Linear Aligned Dimensions
- Creating Linear Baseline Dimensions
- Creating Linear Continued Dimensions
- Creating Angular Dimensions

- Creating Angular Baseline Dimensions
- Creating Angular Continued Dimensions
- Creating Radial Dimensions
- Creating Arc Length Dimensions
- Creating Jogged Radius Dimensions
- Creating Ordinate Dimensions
- Adding Center Marks
- Adding Centerlines
- Modifying Center Marks and Centerlines
- Adding and Modifying Dimension Text
- Modifying Dimension Components
- Aligning Dimensions
- Adjusting the Space between Dimensions
- Breaking Dimension and Extension Lines
- Adjusting Overlapping Dimensions
- Jogging Dimension Lines
- Understanding Dimension Styles
- Creating New Dimension Styles
- Creating a Dimension Substyle
- Modifying a Dimension Style
- Overriding Dimension Styles
- Comparing Dimension Styles
- Changing Dimension Properties
- **Interface Customization**
 - Introducing Tool Palettes
 - Controlling Tool Palette Display
 - Using Palette Tools
 - Creating Palettes
 - Controlling Palette Tool Properties
 - Creating Palette Tools for Hatch
 - Creating Palette Tools for Blocks
 - Creating Palette Tools Using Objects and Flyouts
 - Creating Palette Tools Using DesignCenter
 - Customizing the User Interface
 - Customizing Tabs in the Ribbon
 - Customizing a Panel within the Ribbon
 - Adding a Tab and Panel to Workspaces
 - Customizing the Quick Properties Palette
 - Customizing Rollover Tooltips
 - Customizing Menu Search Tags
 - Customizing the Quick Access Toolbar
- **Print and Plot Prep**
 - Introducing Print and Plot Concepts
 - Understanding Model Space and Paper Space
 - Choosing a Printer
 - Placing a Title Block on a Layout
 - Creating Layout Viewports
 - Setting a Layout Viewport Scale

- Controlling Viewport Display
- Placing Annotations on a Layout
- Changing the Space of an Object
- Printing the Drawing
- Previewing Plotted Output
- Controlling Plot Options and Orientation
- Viewing Print and Publish Details
- Understanding Plot Style Tables
- Accessing the Plotter Manager
- Plotting Multiple Drawings at Once
- **Blocks and Attributes**
 - Understanding Block Concepts
 - Creating Blocks from Existing Objects
 - Understanding Block Properties
 - Changing Block Properties
 - Using Blocks within a Drawing
 - Using Multiple Blocks at Once
 - Exploding Blocks into Objects
 - Changing the Insertion or Reference Point
 - Understanding Dynamic Blocks Concepts
 - Understanding Dynamic Block Examples
 - Creating Dynamic Blocks from Existing Blocks
 - Adding Parameters to Dynamic Blocks
 - Adding Constraints to Dynamic Blocks
 - Adding Additional Parameters to Dynamic Blocks
 - Changing the Properties of Dynamic Block Parameters
 - Changing Dynamic Block Parameters by Using Lists
 - Changing the Appearance of Dynamic Blocks
 - Adding Additional Constraints to Dynamic Blocks
 - Controlling Dynamic Blocks Using Block Tables
 - Adding Special Properties to Blocks
 - Introducing Attributes
 - Adding an Attribute to a Block
 - Adding Additional Attributes to a Block
 - Controlling the Visibility of Attributes
 - Synchronizing Attribute Data
 - Managing Attributes
 - Extracting Attribute Data from a Drawing
 - Dividing and Measuring Using Blocks
- **External References and Reusable Content**
 - Understanding Reusable Content Concepts
 - Understanding External References Concepts
 - Understanding Practical Applications of External References
 - Attaching and Detaching External References
 - Loading and Unloading External References
 - Adjusting the External Reference Path
 - Understanding the Difference Between Attachment and Overlay
 - Changing the External Reference Attachment Type

- Selecting a New External Reference Path
- Finding and Replacing External Reference Paths
- Clipping an External Reference
- Binding and Inserting External References
- Editing Blocks and External References
- Copying Nested Objects
- Working with Images
- Using DesignCenter
- Attaching a DWF File as an Underlay
- Attaching a PDF File as an Underlay
- Importing PDF Files
- Importing Objects from a PDF Underlay
- Recognizing SHX Text
- Controlling SHX Text Conversion Settings
- Combining Text
- Attaching a DGN File as an Underlay
- Using Autodesk Seek
- Inserting OLE Objects
- Attaching Hyperlinks
- Using the Geographic Location Settings
- Setting the Geographic Location
- Editing the Geographic Location
- Reorienting the Geographic Marker
- Changing the Latitude or Longitude of the Geographic Marker
- Changing the Current Map View
- Marking Geographic Positions
- Hiding and Displaying the Geographic Marker
- Removing a Location
- Capturing and Plotting Map Data
- Adjusting the Appearance of Map Data
- **AutoCAD Utilities**
 - Removing Unused Items
 - Checking the Drawing for Errors
 - Changing the Display Order
 - Importing Files from Other Programs
 - Using the Drawing Recovery Manager
 - Recovering Damaged Drawings
 - Converting Drawing Files
 - Monitoring System Variables
- **Command Customization**
 - Introducing the Action Recorder
 - Using Existing Action Macros
 - Creating Simple Action Macros
 - Editing Action Macros
 - Sharing Action Macros
 - Creating and Editing Complex Action Macros
 - Controlling Action Macro Dialog Settings
 - Creating Command Aliases

- Customizing the AutoCorrect List
- Customizing the Synonym List
- **3D Basics**
 - Introducing 3D Concepts
 - Introducing the 3D Workspace
 - Using the ViewCube to View 3D Models
 - Using 3D Orbit to View 3D Models
 - Using 3D View Presets to View 3D Models
 - Using SteeringWheels to View 3D Models
 - Using 3D Object Snap
 - Understanding Visual Styles
 - Understanding 3D Coordinate Systems
 - Understanding Dynamic UCS
 - Manipulating the User Coordinate System
- **Creating 3D Objects**
 - Creating a Solid Box
 - Creating a Solid Cylinder
 - Creating a Solid Cone
 - Creating a Solid Sphere
 - Creating a Solid Pyramid
 - Creating a Solid Wedge
 - Creating a Solid Torus
 - Creating 3D Objects by Extruding 2D Objects
 - Creating 3D Objects by Revolving 2D Objects
 - Creating 3D Objects by Lofting 2D Objects
 - Creating 3D Objects by Sweeping 2D Objects
 - Creating 3D Objects Using Polysolid
 - Creating 3D Objects Using Presspull
 - Creating a 3D Mesh Box
 - Creating a 3D Mesh Cone
 - Creating a 3D Mesh Cylinder
 - Creating a 3D Mesh Pyramid
 - Creating a 3D Mesh Sphere
 - Creating a 3D Mesh Wedge
 - Creating a 3D Mesh Torus
 - Creating a 3D Revolved Mesh
 - Creating a 3D Edge Mesh
 - Creating a 3D Ruled Mesh
 - Creating a 3D Tabulated Mesh
 - Controlling Mesh Primitive Options
 - Creating a 3D Helix
 - Creating a 3D Polyline
- **Modifying 3D Mesh Objects**
 - Introducing Mesh Editing
 - Converting Objects into Meshes
 - Smoothing More
 - Smoothing Less
 - Refining a Mesh

- Adding a Crease
- Removing a Crease
- Controlling Mesh Tessellation Options
- Splitting a Mesh Face
- Extruding a Mesh Face
- Merging Mesh Faces
- Creating a Hole in a Mesh
- Closing a Hole in a Mesh
- Collapsing a Face or Edge
- Spinning a Triangle Face
- Converting a Mesh to a Solid
- Converting a Mesh to a Surface
- Deforming a Mesh
- **Working with Surface Objects**
 - Introducing Surface Modeling
 - Creating a Network Surface
 - Creating a Lofted Surface
 - Creating a Swept Surface
 - Creating a Planar Surface
 - Creating an Extruded Surface
 - Creating a Revolved Surface
 - Creating a Blend Surface
 - Creating a Patch Surface
 - Creating an Offset Surface
 - Filleting a Surface
 - Trimming a Surface
 - Untrimming a Surface
 - Extending a Surface
 - Sculpting a Surface
 - Converting a Surface into a NURBS Surface
 - Editing Control Vertices on a NURBS Surface
 - Displaying and Hiding Control Vertices on NURBS Surfaces
 - Rebuilding Control Vertices
 - Adding Control Vertices
 - Removing Control Vertices
 - Extracting Isolines
 - Projecting Curves onto a Surface
 - Performing Surface Continuity Analysis
 - Performing Surface Curvature Analysis
 - Performing Draft Analysis
- **Working with Point Clouds**
 - Introducing Point Clouds
 - Attaching a Point Cloud
 - Controlling the Size of Points and Level of Detail
 - Using Colorization to Help Visualize Point Clouds
 - Viewing Point Clouds with Various Lighting Effects
 - Cropping Point Clouds
 - Creating Geometry Using Point Clouds

- Extracting Geometry from Point Clouds
- Controlling the Transparency of Point Clouds
- Using the Point Cloud Manager
- **Modifying 3D Objects**
 - Using Gizmos
 - Using Object Culling
 - Mirroring Objects in 3D
 - Moving Objects in 3D
 - Aligning Objects in 3D
 - Rotating Objects in 3D
 - Creating a 3D Rectangular Array
 - Creating a Stepped 3D Rectangular Array
 - Creating a 3D Polar Array
 - Creating a Stepped 3D Polar Array
 - Creating a 3D Path Array
 - Scaling Objects in 3D
 - Editing Solid Primitives
 - Editing 3D Subobjects
 - Creating Composite Solids Using Boolean Operations
 - Creating a Composite Solid Using Boolean Union
 - Creating a Composite Solid Using Boolean Subtract
 - Creating a Composite Solid Using Boolean Intersect
 - Adding a Chamfer to a Solid
 - Adding a Fillet to a Solid
 - Chamfering Edges of a Solid
 - Filletting Edges of a Solid
 - Editing Subobjects Within Composite Solids
 - Extracting Edges from 3D Objects
 - Editing Edges of a Solid by Imprinting Onto a Solid
 - Editing Edges of a Solid by Changing the Edge Color
 - Editing Edges of a Solid by Copying Edges
 - Editing Faces of a Solid by Extruding Faces
 - Editing Faces of a Solid by Tapering Faces
 - Editing Faces of a Solid by Moving Faces
 - Editing Faces of a Solid by Copying Faces
 - Editing Faces of a Solid by Offsetting Faces
 - Editing Faces of a Solid by Deleting Faces
 - Editing Faces of a Solid by Rotating Faces
 - Editing Faces of a Solid by Changing the Color
 - Separating Solids
 - Cleaning Solids
 - Shelling Solids
 - Checking the Validity of Solids
 - Checking Solids for Interference
 - Slicing Solids
 - Creating a Solid by Thickening a Surface
 - Creating Curves by Offsetting Edges
 - Creating Sections Using Section Objects

- Creating Jogged Section Planes
- Creating and Updating Cross Sections
- Creating Elevations Using Section Planes
- Controlling Section Settings
- Creating a 2D Representation of a 3D Object
- Creating Orthographic Views with Solid View
- Adjusting Orthographic Views with Solid Drawing
- Adding 2D Profile Views with Solid Profile
- **Model Documentation**
 - Creating Drawings from 3D Models
 - Creating a Base View
 - Creating a Base View of a Model Created in Inventor
 - Creating a Base View in a Drawing with Multiple Parts
 - Creating Projected Views
 - Editing Drawing Views
 - Creating Section Views
 - Creating a Full Section View
 - Creating a Half Section View
 - Creating an Offset Section View
 - Creating an Aligned Section View
 - Creating a Section View from an Object
 - Creating Cross-Section Views
 - Changing the Hatch Pattern of a Component in a Section View
 - Editing Section Views
 - Modifying the Cutting Plane
 - Modifying a Section Line Identifier
 - Modifying the Section View Label
 - Excluding Components from Drawing Views
 - Creating Detail Views
 - Creating a Circular Detail View
 - Creating a Rectangular Detail View
 - Modifying Detail Views
 - Editing the Detail View Boundary
 - Modifying a Detail View Identifier
 - Modifying the Detail View Label
 - Constraining Drawing Views to Model Geometry
 - Controlling the Section View Style
 - Controlling the Detail View Style
 - Setting the Drafting Standards for Drawing Views
 - Updating Drawing Views
- **Collaborating with Others**
 - Exporting to PDF
 - Sending Models to a 3D Print Service
 - Sending Models to Autodesk Print Studio
 - Sending Electronic Transmittal Sets
 - Exporting to DWF
 - Exporting a Model to a 3D DWF File
 - Working with Marked-up DWF Files

- Using the Layer Translator
- Configuring Drawing Standards
- Checking for Standards Violations
- **Rendering**
 - Introducing Rendering in AutoCAD
 - Working with Lights
 - Placing a Point Light
 - Placing a Spot Light
 - Placing a Distant Light
 - Placing a Web Light
 - Working with Sunlight
 - Controlling the Sky Background and Illumination
 - Using Luminaire Objects
 - Controlling the Location and Properties of Lights
 - Working with Materials
 - Applying Materials to Objects and Faces
 - Creating and Modifying Materials
 - Using Texture Maps
 - Working with Procedural Maps
 - Creating Your Own Materials
 - Saving Materials to a User Library
 - Adjusting Material Mapping
 - Creating a Rendering
 - Setting the Render Destination
 - Setting the Render Output Resolution
 - Creating Render Presets
 - Controlling the Rendering Environment
 - Placing Cameras and Creating Views
 - Adding a Background to a View
 - Saving and Redisplaying Rendered Images
 - Rendering in the Cloud
 - Understanding the Render Gallery
 - Creating Walkthroughs and Flythroughs