

AutoDesk Revit 2017 for Architecture

524 lessons : 48:18:29 (hh:mm:ss)

Description:

CADLearning for Autodesk Revit 2017 for Architecture covers the use of Revit 2017 as an architectural and construction modeling tool. Revit is the most popular architectural design tool from Autodesk, with capabilities for modeling, analysis, documentation, and collaboration. Beginner, Intermediate, and Advanced users will learn the core and architectural functions of Revit as it works within the world of Building Information Modeling, or BIM.

- **Getting Started**

- Opening a Project File
- Identifying the User Interface Components
- Managing User Interface Components
- Understanding the Ribbon
- Customizing the User Interface
- Understanding the Quick Access Toolbar
- Understanding the Options Bar
- Understanding the Application Menu
- Using the Revit App Store
- Understanding the Project Browser
- Understanding the Properties Palette
- Understanding the Type Selector
- Understanding the Status Bar
- Understanding the Drawing Area
- Understanding the View Controls
- Understanding the Navigation Bar
- Understanding the ViewCube
- Understanding the Steering Wheels
- Understanding the Options Dialog
- Managing File and Template Locations
- Managing the Places List
- Setting the Default Family Library Location
- Starting a New Project from Recent Files
- Starting a New Project from the Application Menu
- Controlling Project Units
- Controlling Snaps Settings
- Using the Mouse
- Using the Keyboard
- Customizing Keyboard Shortcuts
- Managing Windows
- Understanding Macros
- Saving and Closing Files
- Closing the Application

- **Revit Fundamentals**

- Understanding BIM
- Understanding the Difference Between BIM and CAD

- Understanding Revit Concepts
- Understanding Bidirectional Associativity
- Recognizing Parametric Relationships
- Understanding Families
- Placing Model Elements
- Sketching Model Elements
- Placing View-Specific Elements
- Working with Datum Elements
- Placing Elements from the Project Browser
- Loading Families and Using Type Catalogs
- Finding Families Using Autodesk Seek
- Editing Families Within a Project
- **Basic Modify and Reporting Tools**
 - Selecting Objects
 - Modifying Selection Settings
 - Saving Selection Sets
 - Copying and Moving Objects
 - Rotating Objects
 - Creating Linear Arrays
 - Creating Radial Arrays
 - Scaling Objects
 - Mirroring Objects
 - Using the Clipboard for Copy and Paste
 - Splitting Objects
 - Creating Elements Consistently with Match Type Properties and Create Similar
 - Aligning Objects
 - Trimming and Extending Objects
 - Offsetting Objects
 - Pinning Objects in Place
 - Deleting Objects
 - Cutting and Joining Geometry
 - Splitting the Face of an Element
 - Applying Materials as Paint
 - Measuring versus Dimensioning Objects
 - Understanding Element IDs
 - Understanding and Reviewing Warning Messages
- **Sketch Tools**
 - Creating Tangency Locks
- **Modeling Essentials**
 - Creating and Modifying Levels
 - Creating and Modifying Grids
 - Creating and Modifying Multi-Segment Grids
 - Controlling the Display of Levels and Grids
 - Limiting Visibility of Datum Using Scope Boxes
 - Setting and Showing the Active Work Plane
 - Creating Reference Planes in a Project
 - Modeling Accurately with Length and Angle Snap Increments
 - Working with Object Snaps

- Using Visualization Aids When Working in 3D Views
- **Core and Shell**
 - Creating Exterior Building Walls
 - Creating Building Core Walls
 - Creating Doors
 - Creating Windows
 - Modifying Door and Window Properties
 - Creating Curtain Walls
 - Placing Doors in Curtain Walls
 - Creating Curtain Wall Grids and Mullions
 - Understanding Compound Structures
 - Creating Floors
 - Understanding Floor Instance Properties
 - Understanding Floor Type Properties
 - Creating Sloped Floors by Sketching
 - Creating Sloped Floors by Shape Editing
 - Creating Floor Openings
 - Creating Shaft Openings
 - Creating a Roof by Footprint
 - Creating a Roof by Extrusion
 - Joining and Unjoining Roofs
 - Understanding Roof Instance Properties
 - Understanding Roof Type Properties
 - Working with Sloped Glazing Roofs
 - Creating Sloped Roofs by Sketching
 - Creating Sloped Roofs by Shape Editing
 - Creating Conical Roofs
 - Managing Complex Roof Conditions Using Align Eaves
 - Creating Roof Soffits
 - Creating Fascias
 - Creating Dormer Openings
 - Creating Roof Openings
 - Modifying Roof and Wall Joins and Controlling Roof Visibility
 - Creating Gutters and Downspouts
- **Walls - An In-Depth Look**
 - Creating Walls
 - Understanding Wall System Families and Types
 - Understanding Wall Drawing Aids
 - Creating Walls by Picking Lines
 - Understanding Wall Instance Properties
 - Understanding Wall Type Properties
 - Changing the Wall Type as Your Design Evolves
 - Understanding Curtain Wall Types
 - Selecting Curtain Wall Components
 - Working with Curtain Wall Grids
 - Creating a Curved Curtain Wall
 - Embedding a Curtain Wall in Another Wall
 - Working with Curtain Wall Panels

- Understanding Mullion Families
- Modifying Mullion Join Conditions
- Working with Corner Mullions
- Modifying Curtain Wall Corner Conditions
- Customizing Curtain Wall Mullions
- Creating a Stacked Wall
- Creating Walls Using the Modify Tools
- Modifying Wall Profiles
- Creating Wall Openings
- Introducing Wall Layer Functions
- Overriding Host Layer Display
- Understanding Wall Join Cleanups
- Understanding Wall Layer Wrapping
- Customizing Vertical Wall Structure by Splitting Regions
- Customizing Vertical Wall Structure by Adding Sweeps
- Customizing Vertical Wall Structure by Adding Reveals
- Customizing the Base and Top Extension of Walls
- Creating Embedded Walls
- Creating In-Place Wall Sweeps
- Creating In-Place Reveals
- Creating Joined Walls for Complex Assemblies
- **Stairs and Railings**
 - Creating Stairs
 - Creating Stair Landings
 - Creating Support Components
 - Creating Stair Components by Sketching
 - Modifying Stair Components
 - Tagging Stairs
 - Customizing Stair Documentation
 - Understanding Stair Properties
 - Creating Spiral Stairs
 - Creating Multi-Story Stairs and Shafts
 - Creating Ramps
 - Placing Railings on a Host
 - Creating Railings by Sketch
 - Modifying Railings
 - Working in the Railing Type Properties Dialog
 - Understanding Railing Properties
 - Customizing Railing Properties
- **Building Interiors**
 - Creating Interior Partitions
 - Creating Interior Storefront Glazing
 - Placing Rooms
 - Placing Rooms Automatically
 - Creating Room Separation Lines
 - Managing Area and Volume Computation Settings
 - Placing Components
 - Placing Hosted Components

- Creating Architectural Columns
- Creating Ceilings
- Placing Building Components in Ceilings
- Creating Area Plans
- Creating Area Boundary Lines
- Creating Areas and Area Schedules
- Creating and Managing Color Schemes
- **Design Analysis**
 - Understanding Energy Settings
 - Understanding the Advanced Energy Settings
 - Working with Energy Analytical Models
 - Performing Energy Simulations
 - Reviewing Energy Simulation Results
- **Site Tools**
 - Creating a Toposurface Using Points
 - Creating a Toposurface from CAD
 - Creating a Toposurface from a Points File
 - Managing Site Settings
 - Controlling the Display of Contour Lines
 - Splitting and Merging Surfaces
 - Creating Toposurface Subregions
 - Creating a Building Pad
 - Creating a Graded Region
 - Creating Site and Parking Components
 - Creating Property Lines
 - Adding Property Line Tags and Contour Labels
- **Parameters**
 - Understanding Parameters
 - Creating Project Parameters
 - Modifying Project Parameters
 - Understanding Shared Parameter Files
 - Creating a Shared Parameters File
 - Creating Shared Parameters
 - Using Shared Parameters in Projects
 - Adding Shared Parameters to Tags
 - Understanding Global Parameters
 - Creating Global Parameters
 - Associating Global Parameters
 - Labeling Dimensions with Global Parameters
 - Using Global Parameters as Reporting Parameters
 - Working with Unifomat Assembly Code Information
 - Working with OmniClass Number Information
- **Schedules**
 - Understanding Schedules
 - Working with Schedules
 - Creating a Schedule and Specifying Fields
 - Scheduling Fields from Rooms and Project Information
 - Adding Calculated Value Formulas to Schedules

- Adding Calculated Value Percentages to Schedules
 - Combining Parameters in Schedules
 - Filtering Schedules
 - Sorting and Grouping Schedules
 - Hiding and Unhiding Schedule Columns
 - Grouping Schedule Headers
 - Formatting Schedule Headers and Data
 - Calculating and Displaying Totals in Schedules
 - Calculating Minimum and Maximum Values in Schedules
 - Adding Conditional Formatting to Schedules
 - Adjusting the Schedule Title Section
 - Adding Additional Information to Schedule Titles
 - Modifying the Schedule Appearance
 - Using Key Schedules
 - Understanding Schedule View Templates
 - Creating a View Template for Schedule Appearance
 - Creating Schedule View Templates
 - Placing Schedules on a Sheet
 - Working with Room, Space and Area Schedules
 - Working with Material Takeoff Schedules
 - Importing and Exporting Schedule Views
 - Creating and Managing View Lists
- **Annotation**
 - Understanding Tags
 - Controlling Default Tags
 - Tagging Elements on Placement
 - Tagging All Elements Not Tagged
 - Tagging Elements Individually
 - Pinning Tags
 - Placing Room and Area Tags
 - Working with Material Tags
 - Creating Calculated Values in Tags
 - Modifying the Appearance of Tags
 - Understanding Text
 - Placing Text Notes
 - Placing Text Notes with a Leader
 - Creating Text Types
 - Changing the Height of Text
 - Controlling Text Font
 - Creating Lists in Text Notes
 - Editing Text Notes
 - Adjusting Text Leaders
 - Using Keyboard Controls to Add Symbols to Text
 - Checking Spelling in a View
 - Finding and Replacing Text
 - Working with Legends
 - Managing Arrowheads

- **Dimensions and Constraints**

- Using Temporary Dimensions
- Modifying Temporary Dimension Settings
- Working with Permanent Dimensions
- Modifying Dimensions
- Modifying Dimension Graphics
- Modifying Dimension Text Appearance
- Creating and Modifying Dimension Styles
- Modifying Dimension Text
- Locking Dimensions
- Controlling Dimensions Using Equality Constraints
- Creating Constraints
- Controlling Dimension Units
- Dimensioning Entire Walls
- Working with Spot Elevations
- Working with Spot Coordinates
- Working with Spot Slopes

- **Drafting and Detailing**

- Loading and Placing Detail Components
- Placing Repeating Details
- Creating a Repeating Detail
- Creating Detail Lines
- Specifying Draw Order
- Showing Hidden Lines in Detail Views
- Modifying the Cut Profile of Model Elements
- Overriding Linework in a View
- Creating Filled Regions
- Creating Masking Regions
- Creating Batt Insulation
- Placing Annotations in Detail Views
- Leveraging Detail Groups
- Saving Views to a File
- Inserting Views and 2D Elements from a File
- Creating Model Text and Model Lines

- **View Graphics**

- Working with Visual Styles
- Understanding Scale and Detail Level
- Understanding Plan View Range
- Adjusting the View Range
- Adding an Underlay
- Understanding View Discipline
- Understanding View Templates
- Creating View Templates
- Applying and Assigning View Templates
- Creating View Types
- Understanding Object Styles
- Understanding Visibility and Graphic Overrides
- Overriding the Visibility and Graphics of Elements and Categories

- Overriding Visibility and Graphics with Filters
- Using Temporary Hide or Isolate and Viewing Hidden Elements
- Using Temporary View Properties
- Understanding Crop Regions
- Creating a Non-Rectangular Crop Region
- Understanding Annotation Crop Regions
- Configuring System Family Coarse Scale Fill Patterns
- Increasing Performance with Graphics Mode Options
- Using Anti-Aliasing
- Understanding Saved View Conditions
- **Views and Sheets**
 - Creating Plan Views and Reflected Ceiling Plan Views
 - Creating a Plan Region
 - Creating Building Elevation Views
 - Creating Interior Elevation Views
 - Creating Framing Elevation Views
 - Changing the Elevation Symbol
 - Creating Section Views
 - Segmenting Section and Elevation Views
 - Creating Callout Views
 - Sketching a Callout View
 - Creating Drafting Views
 - Creating a Reference View
 - Duplicating Views
 - Creating Matchlines and View References
 - Creating Additional View References
 - Creating and Managing View Lists
 - Creating Sheets
 - Placing Views onto Sheets
 - Working with Viewports on Sheets
 - Aligning Views on Sheets with a Guide Grid
 - Using a Sheet List and Placeholder Sheets
 - Creating Custom Titleblocks
 - Creating a Key Plan
 - Managing Sheet Issues and Revisions
 - Controlling Which Revisions Appear on Sheets
- **Printing**
 - Printing and Managing Print Settings
 - Printing to PDF
- **Managing Projects**
 - Managing Project Information
 - Understanding How the Location and Site Relate
 - Specifying a Project Location
 - Understanding Coordinate Systems
 - Understanding the Clipped and Unclipped States of Points
 - Working with the Project Coordinate System
 - Working with the Shared Coordinate System
 - Relocating a Project

- Rotating True North
- Rotating Project North
- Mirroring a Project
- Managing Settings
- Understanding Materials
- Working in the Material Browser
- Managing Materials
- Creating New Materials
- Creating a Material Library
- Loading and Unloading Material Libraries
- Controlling Material Properties
- Controlling Material Graphics and Appearance
- Controlling Material Physical and Thermal Assets
- Editing Material Assets
- Understanding Model and Drafting Patterns
- Managing Fill Patterns
- Creating Model Fill Patterns
- Creating Drafting Fill Patterns
- Working with PAT Files to Create Fill Patterns
- Managing Line Styles
- Managing Line Weights
- Managing Line Patterns
- **Worksharing**
 - Introducing Worksharing Concepts
 - Understanding Worksharing Terminology
 - Enabling Worksharing in a Project File
 - Creating the Central Model
 - Creating a Local Copy of a Central Model
 - Creating Worksets
 - Understanding Workset Visibility
 - Understanding How Central and Local Models Communicate
 - Transferring Changes Between Local Models and the Central Model
 - Using Editing Requests
 - Understanding the Active Workset
 - Working with Worksharing Display Modes
 - Specifying Open Worksets
 - Managing Worksets in Linked Revit Files
 - Unloading Links in Workshared Projects
 - Working Offline with a Workshared Project
 - Editing a Workshared Project at Risk
 - Viewing the Workshared Project History
 - Rolling Back Workshared Projects
 - Opening a Workshared Project Independent of the Central Model
- **Coordination**
 - Linking Revit Models
 - Repositioning Linked Revit Models
 - Controlling the Display of Elements in a Linked Model
 - Scheduling Elements from a Linked Model

- Tagging Elements in a Linked Model
- Monitoring and Coordinating Changes Within a Single Project
- Using Copy and Monitor in a Single Project
- Using Copy and Monitor with Linked Projects
- Performing a Coordination Review with Linked Models
- Checking for Interferences
- **Groups**
 - Introducing Groups
 - Creating a Model Group
 - Placing Groups
 - Creating and Managing Model Groups and Attached Detail Groups
 - Attaching Annotation Detail Groups
 - Creating Detail Groups
 - Editing Groups
 - Making Parameters Vary Between Groups
 - Excluding Elements from Groups
 - Converting Groups to Links
 - Converting Links to Groups
 - Saving and Loading Groups
- **Phases**
 - Introducing Phases
 - Understanding Phases
 - Managing Phases
 - Understanding Phase Filters and Graphic Overrides
 - Assigning Phases and Phase Filters to a View
 - Understanding the Impact of Phases on Documentation
 - Demolishing Elements
 - Establishing Phases in Project Templates
- **Design Options**
 - Introducing Design Options
 - Working with Design Options and Option Sets
 - Editing Design Options
 - Duplicating and Deleting Design Options
 - Creating Design Option Views
 - Understanding the Impact of Design Options on Documentation
 - Promoting and Accepting Design Options
- **Advanced Modeling**
 - Introducing the In-Place Modeling Tools
 - Creating In-Place Family Objects Using Solid Extruded Forms
 - Creating In-Place Family Objects Using Solid Blended Forms
 - Creating In-Place Family Objects Using Solid Revolved Forms
 - Creating In-Place Family Objects Using Solid Swept Forms
 - Enhancing In-Place Families
 - Understanding Adaptive Components
 - Using Adaptive Components to Create Building Elements
- **Family Creation**
 - Understanding Loadable Families
 - Introducing Family Creation

- Understanding the Family Editor
- Working with Tag Families
- Creating a Custom Annotation Tag
- Creating a Custom View Tag
- Creating a Custom View Title
- Working with Component Families
- Introducing Form Creation
- Creating Extrusions
- Creating Blends
- Creating Revolves
- Creating Sweeps
- Creating Swept Blends
- Creating Void Forms
- Creating Reference Planes and Reference Lines
- Controlling the Display of Reference Planes
- Creating Dimension and Parameter Constraints
- Creating Family Geometry
- Understanding Family Geometry Display Settings
- Using Family Visibility Preview
- Working with Hosted Families
- Creating Hosted Families
- Creating Family Types
- Working with Families in a Project
- Creating Family Parameters
- Adding Formulas to Family Parameters
- Using Shared Parameters in Families
- Organizing Family Parameters
- Understanding Reporting Parameters
- Linking Parameters in Component Families
- Using Family Parameters to Control Visibility
- Creating Symbolic and Model Lines
- Creating Controls
- Creating Masking Regions
- Managing Nested Families
- Creating a Type Catalog
- Exporting Family Types
- Importing Family Types
- **Presentation Views**
 - Creating 3D Views
 - Understanding 3D View Properties
 - Specifying the Background for 3D Views
 - Rotating 3D Views
 - Using Section Boxes in 3D Views
 - Using Selection Boxes
 - Creating Perspective 3D Views
 - Working in Perspective Views
 - Modifying the Perspective Field of View
 - Storing a 3D View Home and Front Orientation

- Orienting 3D Views to Other Views
- Locking 3D Views for Annotation
- Creating Exploded Views with Displaced Elements
- Using Sketchy Lines
- Creating Decals
- Managing Decal Types
- Managing Photographic Exposure
- Managing Shadows
- Utilizing Depth Cueing
- **Interoperability**
 - Importing and Managing Image Files
 - Linking and Importing CAD Files
 - Managing Linked CAD Files
 - Controlling the Coordinates of Linked CAD Files
 - Managing Imported CAD Files
 - Controlling Line Weights in Imported CAD Files
 - Using CAD Files to Create Building Model Objects
 - Working with Autodesk Exchange Files
 - Linking Point Clouds
 - Working with Point Clouds
 - Controlling the Visibility of Point Clouds
 - Controlling the Color Mode of Point Clouds
 - Opening IFC Files
 - Linking IFC Files
 - Working with IFC Files
 - Specifying CAD Export Setup Options
 - Exporting to 2D CAD Formats
 - Exporting to 3D CAD
 - Exporting Views to Image Files
 - Exporting Rooms or Spaces to gbXML
 - Exporting the Energy Analytical Model to gbXML
 - Exporting to 3ds Max
 - Exporting Room and Area Reports
 - Controlling IFC Export Classes
 - Specifying IFC Export Setup Options
 - Exporting to IFC
 - Exporting to Civil 3D
 - Exporting to ODBC