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Welcome to the *Autodesk® Revit® Architecture Certified User Skills*. This document was designed to help educators and educational institutions teach Revit Architecture software skills. Created using valuable input from Project Lead the Way and other respected educators and designers, it sets forth important skill standards for developing a high-quality user certification exam and curriculum resources.

The Revit Architecture Certified User Skills serves to standardize the core competencies for fundamental-level instruction with Autodesk Revit Architecture for a two-semester class and provides a content framework and reference guide for the Autodesk® Revit® Architecture Certified User exam.

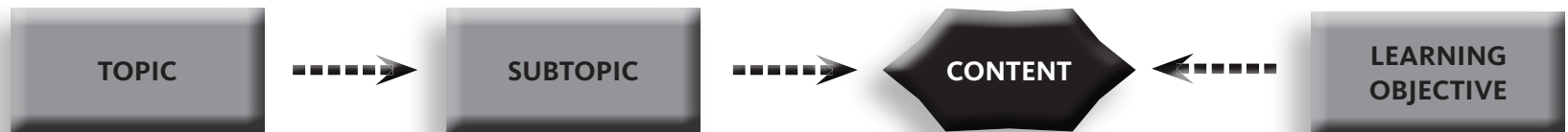


TIP: Although this document is designed to facilitate teacher-led courses and lessons, it may also be referenced for self-paced learning through the use of the Autodesk® Digital STEAM Workshop and the Autodesk Digital STEAM Workshop.

Using This Document

This easy-to-read document lists industry-specific topics pertaining to a function or feature set of Autodesk Revit Architecture software. Topics are organized into three substructures logically sequenced for classroom presentation:

- **Topic:** A standard functional subject area and/or feature set available in Autodesk Revit Architecture software.
Example: Views
- **Subtopic:** A subtopic provides more detail on the topics and what the topics support.
Example: View Types
- **Content:** The content provides more detail about the subtopic and what should be taught and learned.
Example: Elevations
- **Learning Objective:** The learning objective exemplifies what the student is expected to understand.
Example: Modify, crop, and place elevation views on a sheet.



Autodesk Revit Architecture Certified User Digital Study Packet

The Autodesk Revit Architecture Certified User Digital Study Packet is a digital learning resource that provides students with a library of short videos based on the Revit Architecture Certified User Skills. The study packet covers the basic techniques required to become familiar with the software and get hands-on quickly.



TIP: Teachers can leverage the study packets in conjunction with the Autodesk Digital STEAM Workshop or their own curriculum to help their students build their software skills.

Autodesk Digital STEAM Workshop

The Autodesk Digital STEAM Workshop provides teachers and students with a highly visual story-based curriculum created to promote design innovation and creative problem-solving through science, technology, engineering, arts, and math (STEAM). The curriculum is structured as a framework for learning software through project-based content based on engaging real-world industry projects that build gradually in difficulty, offering students a chance to achieve small successes as they build their technical skills.



TIP: Using the Autodesk Revit Architecture Certified User Skills as benchmarks, teachers can measure a student's progress as they work through the skills-building projects offered in the Autodesk Digital STEAM Workshop.

Feedback

We welcome your feedback on the *Revit Architecture Certified User Skills*. Please email us at digitalSTEAM@autodesk.com.



Audobon Center photo courtesy of Eric D. Lipschutz

Industry Specific Topic	Sub-Topic	Content	Examples of Learning Objective	Reference
User Interface				
	Definitions			
		UI Features: Autodesk Revit window, graphics window, the ribbon, project browser, and the context (right-click) menus.	Identify primary parts of the User Interface (UI). (Tabs, Application menu, Info Center, Ribbon, Elevation tag, Status bar, View control Bar	
	UI Navigation/Interaction			
		Ribbon > Panels > Tabs	Name the key features of the ribbon. Define how a split button works. Demonstrate the three ways the ribbon can be displayed (Full ribbon, Min to Panel tiles, Min to tabs) Demonstrate how to detach a panel and move it on the screen.	User Interface
		Project Browser	Describe the hierarchy in the project browser for an new project.	Project Browser
		Context (right-click menus)	Define what “Context” means when right clicking in the drawing window.	
		Application Menu	Name the tools found on the “Application Menu” (Save, Plot, Export and Print) or What tools are found on the “Application Menu”	Application Menu
		Quick Access toolbar	Demonstrate how to add items to the Quick Access Toolbar	Quick Access Toolbar
		Options Bar	Describe why the “Option Bar” changes.	Options Bar
		Status Bar	Describe the function of the “Status Bar”.	Status Bar
		Esc> Escape key	Describe what hitting the escape key does.	
	Drawing Window			
		Elevation Marker	Describe what double clicking on a elevation view marker does.	Drawing Area
		Origin 3D Indicator	Demonstrate how to turn on/off the 3D Indicator	
		View Control Bar	Demonstrate how to change the view scale.	View Control Bar

Industry Specific Topic	Sub-Topic	Content	Examples of Learning Objective	Reference
User Interface				
	Navigation Control			
		3D View Icon on QAT	Describe the functionality of the ViewCube.	
		ViewCube	Describe what the home icon does.	
	Zoom			
		Navigation bar	Demonstrate how to change the navigation bar opacity.	Navigation Bar
			Describe how to zoom using the Navigation bar	
		Zoom In/out	Describe the quickest way to zoom in or out	
		Pan	Describe the quickest way to pan.	
File Management				
	Definitions			
		BIM	Define the acronym “BIM” and why it is important to Revit users.	Building Information Modeling
		Template	Define a template file.	Project Templates
	Project Files			
		.rvt> Determine paper size and scales for various projects	Identify the file extension of a project file.	
		.rte>Create Template File for later project usage.	Identify the file extension of a template file.	
		.rfa	Identify the file extension of a Revit family file.	
	Open existing Revit project			
		Recent File window		Recent Files
		Projects>Open	Demonstrate how to open a Revit file.	Open a Revit Project File
		Application Menu>Open Documents (Icon)		

Industry Specific Topic	Sub-Topic	Content	Examples of Learning Objective	Reference
File Management				
	Create new Revit project			
		Application Menu>New>Project	Demonstrate how to create a new Revit project folder and file.	Creating a Project
		Set up Drawing units	Change to a metric drawing	Project Units
		Add project information	Add project information to new drawing set.	Project Information
		Change system settings	Create new dimension style, change arrows to architectural tick(oblique's)	Temporary Dimension Settings
	Save			
		Pick on disk icon on QAT.		Saving Revit Files
		Application Menu - Save, Save as	Name the three file types that can be saved while in a open drawing.	
Views				
	View control and properties			
		View control and properties	Navigate and change views using the control bar.	View Controls
		View Range	Understand the view range of plan views and be able to change it.	View Templates
		View templates	Understand the purpose of view templates.	View Range
		Object visibility	Change object visibility using temporary hide, hide category, and hide element.	Temporary Hide
	View Types			
		Sections	Create section views including segmented ones.	Section Views
		Elevations	Modify, crop, and place elevation views on a sheet.	Elevation Views
		3D views	Create and navigate 3D views.	3D Views
		Callouts and Detail Views	Create callouts for details.	Callout Views
		Drafting views	Create and annotate a drafting view.	Drafting Views
		Section box	Use the section box to create a cutaway 3D view.	Section Box

Industry Specific Topic	Sub-Topic	Content	Examples of Learning Objective	Reference
Views				
	Cameras			
		Camera	Create a camera view and modify its orientation.	Cameras
		Walkthroughs	Create and edit a walkthrough.	Walkthroughs
Levels				
	Definitions			
			Describe a story level. Describe a use of a non-story level.	Levels
		Using and controlling levels	Understand how levels interact with intersecting views.	
		Making new levels	Create new levels.	Adding Levels
		Level characteristics	Understand level properties and characteristics.	Level Properties
Walls				
	Home Tab > Wall			
			Describe how to place walls.	Placing Walls
	Options Bar			
		Height	List options available when placing and modifying walls.	
		Location Line		
		Chain		
		Offset		
		Radius		
	Openings			
		Create opening in a wall	Create a floor to ceiling opening in given wall.	Openings in Walls
	Join			
		Join crossing walls	Demonstrate join on crossing wall elements	Join Wall Cleanup Options
	Materials			
		Modify walls	Create new wall style and add given materials.	Materials

Industry Specific Topic	Sub-Topic	Content	Examples of Learning Objective	Reference
Doors				
	Home Tab > Door			
			Describe how to place doors.	Placing Doors
	Options Bar			
		Vertical/Horizontal	Describe door options.	
		Tag on Placement		Door Tags
		Leader		
		Leader attachment distance		
	Model in place			
			Edit existing doors. Use Align to position a door.	
Windows				
	Home Tab > Window			
			Describe how to place windows.	Placing Windows
	Options Bar			
		Vertical/Horizontal	Describe window options.	
		Tag on Placement		Window Tags
		Leader		
		Leader attachment distance		
	Model in place			
			Edit existing windows.	

Industry Specific Topic	Sub-Topic	Content	Examples of Learning Objective	Reference
Component				
	Home Tab > Component			
		Component Types	List the types of components available.	Components
	Options Bar			
			List options available when placing a component.	Placing Components
	Component Host			
			Describe how to move a component to a different host.	Moving Components to Different Hosts
	Families			
		Load a Family	Navigate to find component families and load them.	Loading Families
		Edit a Family	Edit a family file and save.	Family Editor
Columns and Grids				
	Definitions			
		Grid uses	Identify the uses of a grid.	Grids
	Home Tab > Grid			
		Grid properties and characteristics.	Create an equally spaced grid pattern.	Adding Grids

Industry Specific Topic	Sub-Topic	Content	Examples of Learning Objective	Reference
Columns and Grids				
	Grid Properties			
			Lists the options available when placing and modifying grids.	Grid Properties
	Home Tab > Column			
		Column properties and characteristics.	Place columns on grid.	Adding Columns
	Column Properties			
			Lists the options available when placing and modifying columns.	Column Properties
	Modify			
			List the tools you can use to modify columns and grids.	Modifying Columns
Stairs and Railings				
	Stair Types and Properties			
		Stair types	Set stair type.	Stairs
		Stair properties	Change Stair tread depth.	Stair Properties
	Stair Placement Options			
		Stair placement	Add a stair.	Stairs
	Railing Types and Properties			
		Railing types	Set railing to rectangular.	Railings
		Railing properties	Set railing properties.	Railing Properties
	Railing Placement Options			
		Railing placement	Add a railing.	Adding a Railing

Industry Specific Topic	Sub-Topic	Content	Examples of Learning Objective	Reference
Roofs and Floors				
	Roof Types and Properties			
		Roof by foot print, extrusion, face	Create a roof.	Creating a Roof
		Roof properties		Roof Properties
	Roof Elements			
		Fascia, Soffit, Gutter		Adding Elements to Roofs
	Floors Types and Properties			
		Sloped and tapered	Set the floor type. Create a floor.	Floors
Sketching				
	Geometry			
		Lines, Arcs, Polygons, Rectangles	Sketch geometry and profiles using all sketching tools.	Sketching
	Fillet, Trim			
		Fillet	Fillet Objects.	Fillet
		Trim	Trim objects.	Trim
	Snaps			
		Snaps, Tab Cycle, Short cuts	Describe the benefits of using snaps	Snaps
			List the short cuts to toggle osnap on and off	Object Snaps and Snap Shortcut Keys

Industry Specific Topic	Sub-Topic	Content	Examples of Learning Objective	Reference
Annotations				
	Text			
		Add text	Add Model text to a Floor plan	Adding Text Notes
	Dimensions			
		Add dimensions	Add dimension to give floor plan. Label given wall section	Dimensions
		Add spot elevation	Add spot slope to roof on given plan.	Spot Elevations
	Tags			
		Add tags	Add schedule tags	Add Tags
		Apply tags to untagged elements in one operation	Tag untagged elements in given floor plan.	Tag All Not Tagged
Schedules				
	Schedule Types			
		Door	Create door schedule	Schedules
		Window	Create window schedule	
		Room	Create room schedule	
	Legends			
		Add Legend Components	Add schedule tags	Legends
	Keynotes			
		Add keynotes	Add keynotes.	Keynotes
Construction Document Sets				
	Sheet Set up			
		Title sheet	Create title sheet with sheet list.	Title Sheet
	Printing			
		View/Sheet Sets	Create view/sheet sets for printing	View and Sheet Sets
		Print in scale. Print with percentage		Print
	Rendering			
				Rendering
		Interior - Lights	Place generic lights	Lights
Exterior - Setup		Set solar angle	Solar Studies	

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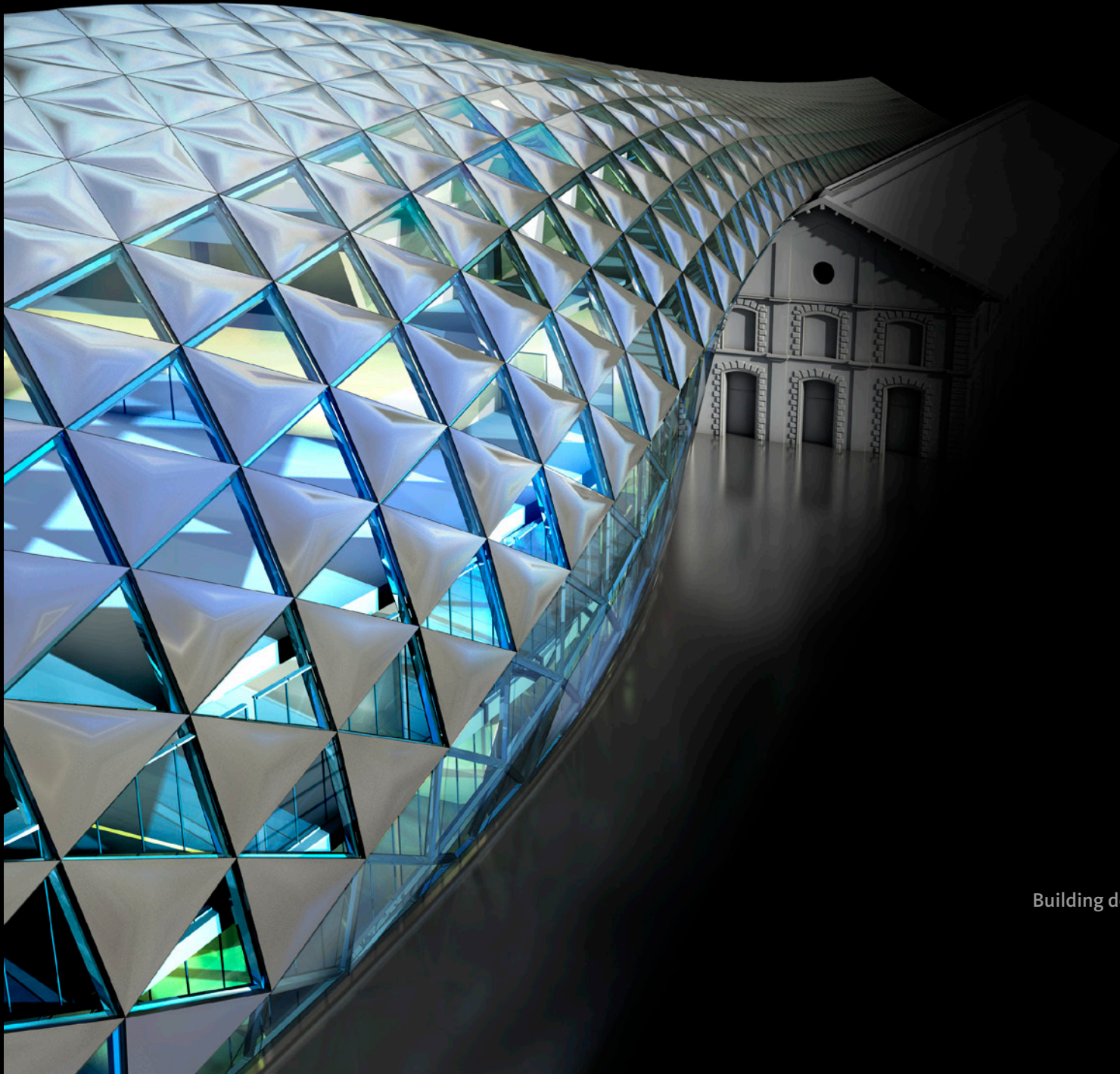
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