

Autodesk Revit Architecture Certified User Skills



Image courtesy of Arcmedia Ltd.



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.

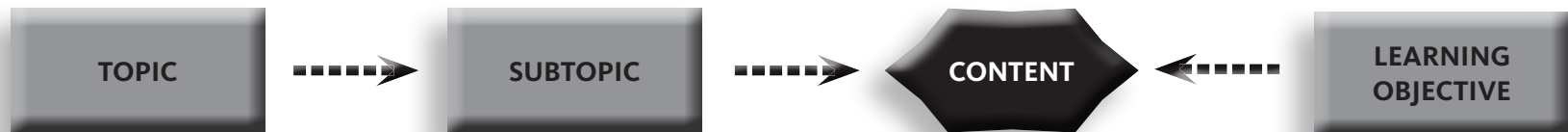


**TIP:** Although this document is designed to facilitate teacher-led courses and lessons, it may also be referenced for self-paced learning through the use of the Autodesk® Digital STEAM Workshop and the Autodesk Digital STEAM Workshop.

### 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](mailto:digitalSTEAM@autodesk.com).



Audobon Center photo courtesy of Eric D. Lipschutz

Industry Specific Topic	Sub-Topic	Content	Examples of Learning Objective	Reference
User Interface				
	<b>Definitions</b>			
		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	
	<b>UI Navigation/Interaction</b>			
		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.	
	<b>Drawing Window</b>			
		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
<b>User Interface</b>				
	<b>Navigation Control</b>			
		3D View Icon on QAT	Describe the functionality of the ViewCube.	
		ViewCube	Describe what the home icon does.	
	<b>Zoom</b>			
		Navigation bar	Demonstrate how to change the navigation bar opacity.	<a href="#">Navigation Bar</a>
			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.	
<b>File Management</b>				
<b>Definitions</b>				
		BIM	Define the acronym "BIM" and why it is important to Revit users.	<a href="#">Building Information Modeling</a>
		Template	Define a template file.	<a href="#">Project Templates</a>
	<b>Project Files</b>			
		.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.	
	<b>Open existing Revit project</b>			
		Recent File window		<a href="#">Recent Files</a>
		Projects>Open	Demonstrate how to open a Revit file.	<a href="#">Open a Revit Project File</a>
		Application Menu>Open Documents (Icon)		

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

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



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

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

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

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

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

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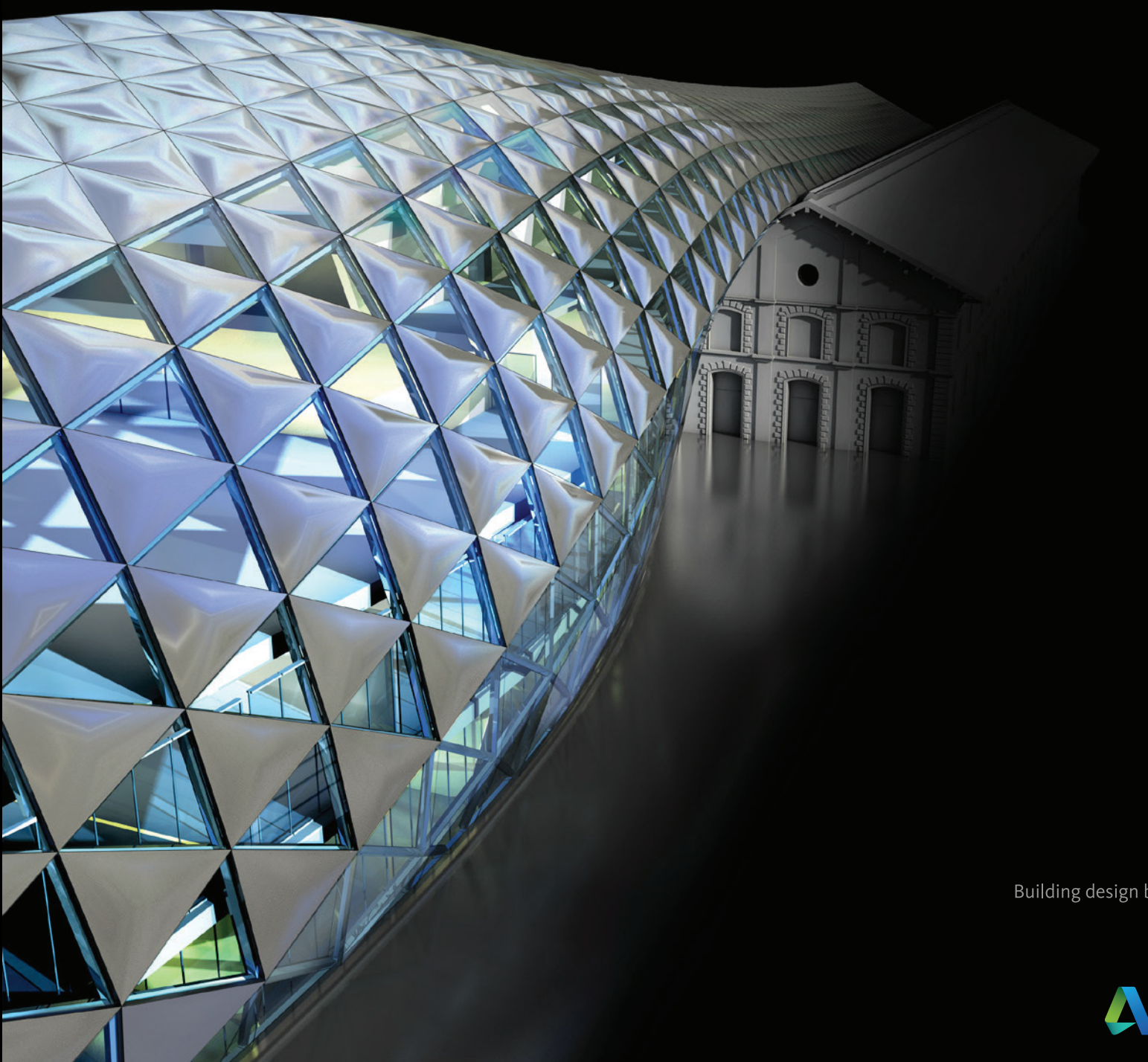
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