

Autodesk Certified User Exam Objectives

AutoCAD



Target Audience

The Autodesk AutoCAD Certified User exam demonstrates competency in computer-aided design (CAD). The exam covers the basic use of the AutoCAD software as well as basic drafting and design techniques. An individual earning this certification has approximately 150 hours of instruction and hands-on experience with the product, has proven competency at an industry entry-level, and is ready to enter the job market.

Candidate Description

The successful candidate is a qualified student, intern, or entry-level user with at least 150 hours of instruction and/or hands-on experience in using AutoCAD.

It is expected that these candidates have foundational knowledge and primarily work under supervision to perform the tasks involved in the job role with assistance from peers and documentation.

Prerequisites

It is expected that all candidates will have a general understanding of:

- Technical drawing & design
- The AutoCAD user interface
- The help system within AutoCAD
- The draw order of overlapping objects
- Inquiry commands such as List, ID, Distance, and Area

Objective Domain

Some of the topics and features of the software that may be covered in the exam are listed below each objective.

Note: Within the context of this exam series, all references to “create, select, manage, etc.” indicate “know how to create, select, manage, etc.”

1. Draw and Modify Objects

1.1 Create basic drawing objects

- 1.1.a Create and edit geometric shapes
 - i. Lines, circles, rectangles, arcs, polygons, rays, etc.
- 1.1.b Create 2D isometric drawings
 - i. Switch between standard isometric planes (ISODRAFT)
 - ii. Use drawing and tracking tools that align with the corresponding isometric axes

1.2 Draw polylines

- 1.2.a Draw open or closed polylines
 - i. Lines and arcs
- 1.2.b Edit a polyline
 - i. Join

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1.3 Select and deselect objects

- 1.3.a Use a selection or crossing windows to select objects
- 1.3.b Remove objects from a selection set

1.4 Manage layers

- 1.4.a Set the current layer
- 1.4.b Create and/or remove layers
- 1.4.c Edit the properties of a layer
 - i. Name, color, linetype, and lineweight
 - ii. Freeze, thaw, lock, unlock, on, and off
- 1.4.d Identify the objects on a specific layer

1.5 Work with blocks

- 1.5.a Create a basic block
 - i. Define the base point
 - ii. Understand the significance of creating a block on layer 0
- 1.5.b Insert and modify instances of a block
 - i. Basepoint, Scale, Rotate, and Explode
 - ii. Blocks palette, Tool palettes, and the Design Center
- 1.5.c Transfer information between drawing files
 - i. Copy with Basepoint
 - ii. Drag and drop across multiple open drawings

2. Draw with Accuracy

2.1 Apply basic object snaps

- 2.1.a Use object snaps and object snap tracking
 - i. Endpoint, midpoint, center, nearest, intersection, perpendicular, quadrant, extension, parallel, geometric center, and tangent
 - ii. Midpoint between two points (M2P) combined with object snap tracking and polar tracking

2.2 Identify and use coordinates

- 2.2.a Enter coordinate values on the Command Line
 - i. Relative, absolute, and polar coordinates
- 2.2.b Use dynamic input and direct distance entry

3. Basic Editing

3.1 Modify object properties

- 3.1.a Identify and alter layer assignments, color, lineweight, and linetype
 - i. Properties palette and Quick Properties
- 3.1.b Match the properties of one object to other objects

3.2 Use basic editing commands to modify objects

- 3.2.a Move, copy, rotate, mirror, scale, and stretch objects
- 3.2.b Move, copy, and stretch objects using grips

3.3 Trim, extend, or lengthen objects

3.4 Create rectangular and polar arrays

3.5 Offset objects at a specific distance

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3.6 Apply a fillet or chamfer to objects

- 3.6.a Rounded corners
- 3.6.b Chamfered corners
- 3.6.c Square corners (zero radius)

4. Annotation

4.1 Create and modify text

- 4.1.a Create and modify text and multiline text
- 4.1.b Apply text and multiline text properties
 - i. *Text height, justification, rotation, text wrapping, and text style*

4.2 Add and modify leaders and/or multileaders

- 4.2.a Apply multileader styles
- 4.2.b Understand multileader options

4.3 Create and edit dimensions

- 4.3.a Add dimensions
 - i. *Linear, aligned, angular, radius, diameter*
- 4.3.b Create multiple dimensions with a single command
 - i. *Continue and baseline dimensions*
- 4.3.c Modify and apply dimension styles
 - i. *Precision, primary units, using overall scale, etc.*

4.4 Apply hatches or fill patterns

- 4.4.a Create a hatch or fill pattern
 - i. *Pick points or select*
- 4.4.b Specify hatch or fill options
 - i. *Angle, scale, pattern, match properties, inherit, and color*

5. Layouts and Printing

5.1 Work with layouts and viewports

- 5.1.a Activate a layout
- 5.1.b Modify viewports on a layout
- 5.1.c Set the viewport properties so the geometry plots to scale
- 5.1.d Add a title block to the layout

5.2 Manage output formats

- 5.2.a Publish a drawing to a plotter, printer, or PDF file
 - i. *Set printing and plotting options*
 - ii. *Use the Page Setup Manager to apply plot settings to a layout*