AUTODESK

Autodesk Certified Professional in AutoCAD for Design and Drafting

Target audience

The Autodesk Certified Professional (ACP) certification is designed for candidates who have advanced skills and can solve complex challenges in production workflows and designs. This type of experience typically comes from having worked with AutoCAD on a regular basis for at least two years, which is equivalent to approximately 400 hours (minimum) to 1,200 hours (recommended).

Candidates who obtain this certification will have demonstrated a comprehensive skill set and proficiency in creating and completing 2D design sets by leveraging AutoCAD-based applications, including AutoCAD LT. Earning this certification can help differentiate candidates in the job market by validating their knowledge, skills, and abilities in relevant AutoCAD disciplines, processes, and design.

Prerequisite skills

It's expected that candidates will already know how to:

- Comprehend and apply drafting concepts and standards.
- Navigate the user interface and set up workspaces.
- View and navigate drawings.
- Link and reference external files and data.
- Set up and manage drawings.
- Create and modify geometry and objects.
- Use tools for precision drawing.
- Annotate designs.
- Organize drawings.
- Use collaboration tools.
- Produce layouts, prints, and other output files.

Exam format

You won't have access to the software during the exam, as all questions are in a selected response format and are designed to be answered without the software. Learn more about our exam format and question types in the [Autodesk Certification FAQs](#).

Exam objectives

Here are some topics and software features that might be covered in the exam. This table lists the main content domains and their weightings, followed by the complete exam content outline.

Exam domain	% of exam
Application and drawing management	22%
Design annotation and detailing	20%
Author and edit drawing content	29%
Configure and manage design output	16%
Collaboration	13%

1. Application and drawing management

1.1. Create and manage layers

1.1.a   Assign and manage layer properties.

     i. May include loading linetypes and assigning to layers, plot styles, and viewport

1.1.b   Apply layer property overrides in layout viewports.

     i. May include the freeze, color, linetype, lineweight, transparency, and plot style properties

1.1.c   Create and manager layer filters.

     i. May include layer properties, creating group filters and searching for layers

1.1.d   Determine the origin of xref layers (bound and non-bound) based on layer name prefix.

1.2. Manage user coordinate systems

1.2.a   Create and restore a named UCS.

1.2.b   Manage the UCS origin and rotation for specific project needs.

1.3. Query and manage drawing object properties

1.3.a   Analyze and modify objects with the Properties palette.

> i. May include property overrides ByLayer and ByBlock

1.3.b   Leverage the MEASUREGEOM command to dynamically analyze and query values of geometric objects.

> i. May include the Quick, Distance, Radius, Angle, and Area options

1.3.c   Use the COUNT command to analyze quantities of blocks in a drawing.

1.4. Manage the application environment

1.4.a   Use common palette interface behaviors.

> i. May include docking, anchoring, auto-hiding, resizing, and changing transparency

1.4.b   Customize the content on the user interface.

1.5. Maintain and manage drawing health

1.5.a   Perform drawing maintenance using the AUDIT, RECOVER, and RECOVERALL commands.

1.5.b   Use the purge tools to manage content within a drawing.

1.5.c   Use the Drawing Recovery Manager to access and restore temporary files.

2. Design annotation and detailing

2.1. Create and apply annotation styles

2.1.a   Create, manage, and apply annotation styles.

> i. May include text, dimensions, leaders, and multileaders

2.1.b   Create, manage, and apply table styles.

> i. May include cell styles, table direction, and visual properties such as fill, alignment, text, and borders

2.2. Apply annotative scaling to design content

2.2.a   Create and manage drawing scales in a drawing.

> i. May include the SCALELISTEDIT command, Imperial/Metric scales, and displaying and removing xref scales

2.2.b   Add, delete, and manage scales assigned to annotative objects.

> i. May include hatch, text, leaders, and multileaders

2.2.c   Manage the scale positions of annotative objects.

> i. May include defining and synchronizing multiple scale positions

2.2.d   Manage annotative objects to display properly in viewports.

> i. May include hatch, blocks, text, leaders, dimensions, and multileaders

2.3. Add annotations to designs

2.3.a   Create and modify annotations such as text, multileaders, and dimensions.

2.3.b   Create and modify tables.

3. Author and edit drawing content

3.1. Reuse and leverage existing design content

3.1.a   Create, manage, and edit block definitions.

i. May include attributes, ByLayer/ByBlock, and the ATTSYNC command

3.1.b   Use the WBLOCK command to write blocks or objects to an external drawing file.

3.1.c   Access blocks and block libraries using the Blocks palette.

3.1.d   Use the clipboard.

i. May include Paste to Original Location, Copy with Base Point, and Cut with Base Point

3.2. Create and edit geometry

3.2.a   Create arcs in multiple directions with different values (center, chord length, and angles).

3.2.b   Create polylines from existing drawing objects.

i. May include the PEDIT and JOIN commands, and the PLINEGEN system variable

3.2.c   Offset existing geometry.

i. May include Layer, Erase, Through, and Multiple options

3.2.d   Define boundaries and boundary sets to create hatches in a drawing.

i. May include Current Viewport vs. Boundary Set, gap tolerance, island detection, and associativity

3.2.e   Define and manage associative rectangular, polar, and path arrays.

3.3. Edit geometry with grips and multifunctional grips

3.3.a   Access alternate modify commands using grips.

3.3.b   Edit geometry by selecting multiple grips on the same object or multiple objects.

3.3.c   Edit geometry by combining dynamic input and multifunctional grips.

3.4. Draw and edit with precision

3.4.a   Use dynamic input to create and edit objects in a drawing.

i. May include point input, dimension input, and dynamic prompts

3.4.b   Use object snaps to create and edit objects.

i. May include object snap overrides, object snap tracking, and polar tracking

3.4.c   Specify points using absolute, relative, or polar coordinates.

4. Configure and manage design output

4.1. Configure production drawing output

4.1.a   Configure and manage named page setups applied to layouts.

i. May include assigning printer/plotter, plot style, plot options, plot area, and paper size

4.1.b   Create layout viewports.

>   i. May include non-rectangular viewports and insert view

4.1.c   Manage layout viewports.

>   i. May include clip, lock, layer control, toggle, viewport scale, and annotation scale

4.2. Plot and/or publish production drawing output

4.2.a   Define and manage a sheet list to publish multiple drawings.

>   i. May include the PUBLISH command and applying page setup overrides

4.2.b   Configure and use an Electronic Transmittal package (eTransmit).

4.3. Use the Sheet Set Manager

4.3.a   Create a new sheet within a sheet set.

>   i. May include importing, creating a new sheet, and subset management

4.3.b   Modify sheet and sheet set properties.

>   i. May include inputting values, renaming, and renumbering

5. Collaboration

5.1. Provide design feedback

5.1.a   Collaborate and use shared drawing files.

5.1.b   Create and manage Traces.

5.1.c   Compare objects between multiple versions of a drawings with compare tools.

5.2. Manage references and underlays

5.2.a   Manage the reference type of an xref (attach and overlay).

5.2.b   Manage external reference paths and path types (full/absolute, relative, and none).

>   i. May include xrefs, underlays, images, and data links

5.2.c   Manipulate image and underlay frames.

5.3. Incorporate external design data into project drawings

5.3.a   Create and manage PDF imports.

5.3.b   Create and manage tables using data links.

5.3.c   Display dynamic data using fields.

>   i. May include custom field creation, object properties, and customized object data as fields