

Exam Guide

Autodesk Certification in Generative Design with Fusion 360 – Expert

The purpose of this guide is to prepare you for the Autodesk Certification in Generative Design with Fusion 360 – Expert exam. Please review this document to understand the requirements needed to prepare for this exam. It's also important to understand that you will not have access to the software during the examination process, all questions are selective response and they can be answered without the software.

Pre-requisites

The Autodesk Certification in Generative Design with Fusion 360 – Expert is an expert-level certification intended for students and industry professionals who possess leading edge knowledge and skills in generative design for manufacturing using Autodesk® Fusion 360™. This Autodesk certification is an industry recognized credential for users who have mastered the Fusion 360 skills in generative design covered on this exam. This type of experience typically comes from a progressive development of skills acquired through an advanced academic program or through years of engineering experience, equivalent to approximately 400 hours (minimum) – 1200 hours (recommended) of software experience.

Candidates who obtain this certification demonstrate expert level skills in defining, running, and post processing generative design studies for various manufacturing applications including additive manufacturing, performance and weight reduction, industrial applications, and part consolidation. These skills are in demand for mechanical engineers in a competitive job environment in manufacturing.

We've summarized the core Fusion 360 skills below so you can familiarize yourself with them before taking the exam. We recommend that you are proficient in these areas, in the knowledge and abilities outlined below prior to taking this exam.

It's expected that all candidates understand how to:

- Navigate the user interface
- Identify areas of the browser
- Transition through various environments
- Know the available file types
- Display a part or assembly
- Create fully constrained sketches
- Create extrude, loft, revolve and other basic features
- Modify geometry with fillets and chamfers
- Use form tools to create and modify form body geometry
- Use mesh tools to smooth, repair and manipulate mesh bodies
- Create surface extrudes, revolve and patches
- Create and manage assemblies and assembly motion
- Use Edit Model in a generative study to prepare a design
- Define generative study materials
- Define generative starting shape, preserve and obstacle geometry
- Create loads and constraints
- Define generative study objectives
- Define generative study manufacturing methods

- Adjust and explain generative study synthesis resolution
- Use a generative previewer and advanced physics
- Solve and review generative outcomes
- Use generative explore tools
- Create a design from an outcome

Resources for the exam

In order to prepare for this exam, we recommend you familiarize yourself certification readiness content:

- [Generative Design for Additive Manufacturing](#)
- [Generative Design for Performance and Weight Reduction](#)
- [Generative Design for Industrial Applications](#)
- [Generative Design for Part Consolidation](#)

Beta Exam information

Total Time Required for exam: 180 minutes

Question types in the exam:

- **Multiple choice:** The purpose of a multiple-choice item is to measure a candidate's ability with regards to a specific content topic. A multiple-choice item has a stem which asks a question and multiple possible answers.
- **Drag and drop:** This item measures a candidate's object association and placement skills with a Drag-and-Drop questions. Test takers select and reposition answer options within a list or graphics.
- **Active screen:** This items measure's a candidate's familiarity with the software's UI by using interactive images of the software.
- **Hot Area:** This item measures the ability to answer a question by clicking on "hot" areas of an exhibit. Hot Area items are essentially multiple-choice items with graphical answer choices.
- **Graphic Interpretation:** This item measures a candidate's ability to read a graphic and interpret the information successfully.