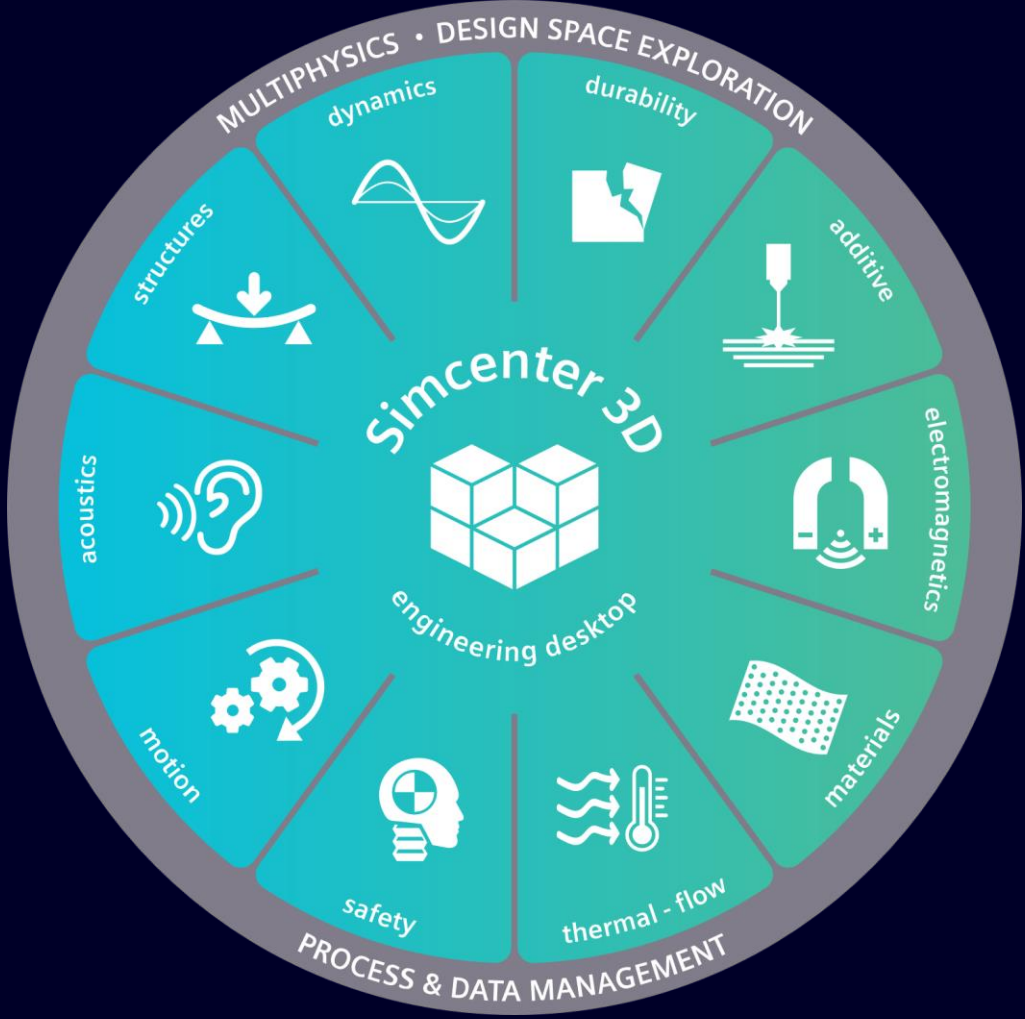


# Xcelerator Academy Learning Maps

## Your learning: At a Glance



Use our interactive learning maps as a guide to navigate through your content based upon your role then click on the icons throughout to learn more about your delivery options.



Select a role below

- LEARN THE SIMCENTER 3D PLATFORM**

**CAE Analyst** Teaches CAE analysts the basics of using Simcenter 3D Pre/Post (Engineering Desktop) to model, perform, and evaluate all their simulations.
- LEARN SIMCENTER 3D ACOUSTICS**

**Acoustics Analyst** Teaches acoustics analysts how to use Simcenter 3D Acoustics to analyze acoustic models to optimize the sound quality of products.
- LEARN SIMCENTER 3D MOTION**

**Motion Analyst** Teaches analysts, engineers, and designers how to use Simcenter 3D Motion to animate and analyze kinematic and dynamic motion mechanisms.
- GET CERTIFIED**

**Simcenter 3D Associate Certification** Choose your learning and take your exam to complete the Associate certification.

## LEARN THE ESSENTIALS

CAE Analyst

**Simcenter 3D Pre/Post**

Fundamentals of Using Pre/Post

Preparing the Model for Analysis

Solving the Model

Reviewing Analysis Results

Use Simcenter 3D Platform!

**Processes and Solutions**

## GET CERTIFIED

Simcenter 3D Certification Exam

Click for detailed certification course list

## LEARN SIMCENTER 3D ACOUSTICS

Acoustics Analyst

**Simcenter 3D Acoustics**

Working with Acoustics Models

Acoustics Analysis Applications

Optimize sound quality of products!

## LEARN SIMCENTER 3D MOTION

Motion Analyst

Motion Fundamentals

Flexible Body Analysis

Discrete Drivetrain

Controls and Mechatronics Co-simulation

Analyze kinematic and dynamic motion mechanisms!

Instructor-led training	On-demand training library	Xcelerator Academy Membership	Learning Journey
**Virtual lab environment included in offer		+ Add-on vLab hours available for purchase	**Virtual lab environment included in offer

# Complete Course List: Simcenter 3D Associate

Instructor-led training	On-demand training library	Xcelerator Academy Membership
**Virtual lab environment included in offer		Add-on vLab hours available for purchase



5 Chapters

LEARNING PATH

### Fundamentals of using Pre/Post

Learn how to analyze a model and work with analysis data in Simcenter 3D.

Siemens 3D Experience, Simulation, Simulation Modeling, Multi-discipline Integration, Openness and usability, Communication with the enterprise, Knowledge capture and automation

PREVIEW CHAPTER  
What Can You Do with Pre/Post?

- Analyze a model in Simcenter 3D
- Simcenter 3D files
- Simcenter 3D Pre/Post user interface

9 Chapters

LEARNING PATH

### Preparing the Model for Analysis

Learn how to prepare a model for analysis by working with geometry, meshes, connections, assemblies, loads, and boundary conditions.

PREVIEW CHAPTER  
Loading a Model into Simcenter 3D

- Prepare geometry
- Mesh a model
- Model connections
- Model assemblies
- Apply boundary conditions
- Define variable conditions and properties
- Model symmetry
- Check the model and resolve problems

4 Chapters

LEARNING PATH

### Solving the Model

Learn how to solve a model with the Simcenter Nastran solver using structural analysis types.

Subcases

Each subcase contains additional objects called subcases and are "hiding" on the solver. A subcase is a set of loading conditions and/or supports. Subcases types, a subcase can have subcases, elements as well as multiple different loading conditions.

PREVIEW CHAPTER  
Using Solutions and Subcases

- Set up a structural analysis
- Run a structural analysis
- Run a nonlinear analysis

6 Chapters

LEARNING PATH

### Reviewing Analysis Results

Learn how to display analysis results using post views, graphs, and reports.

Select Portions of a Model to Display

PREVIEW CHAPTER  
Displaying Results Overview

- Display results
- Manipulate results data
- Graph results
- Save and restore views
- Generate results

7 Chapters

LEARNING PATH

### Processes and Solutions

Learn how to analyze models using specialized Simcenter 3D tools.

PREVIEW CHAPTER  
Refining a Mesh with Adaptive Meshing

- Improve mesh quality
- Run a superelement analysis
- Run a thermal analysis
- Optimize model design