

# Simcenter 3D Learning Journeys

# Introduction

This set of Learning Journeys represents the available Learning Services offerings of Xcelerator Academy on the Simcenter 3D portfolio of products. A Learning Journey maps out the available courses, their recommended order and lets you flexibly choose how to consume it: as Instructor-led training (ILT or V-ILT) or as On-Demand Training (ODT).

If you already have access to an On-Demand Training (ODT) membership, you can use the links presented on the following slides. If you are interested in purchasing the ODT membership, please click [here](#).

## CAE Analyst

Learn to use Simcenter 3D to analyze your models using finite element modeling and results visualization.

[Click here](#)

## Acoustics Analyst

Learn to use Simcenter 3D Acoustics to analyze acoustic models to optimize the sound quality of products.

[Click here](#)

## Design Engineers and Analysts

Learn to use the basic capabilities of Simcenter 3D Motion to animate and analyze kinematic and dynamic motion mechanisms.

[Click here](#)

# Learning Journey: CAE Analyst

This set of courses introduces Simcenter 3D Pre/Post (Engineering Desktop). At the completion of this learning journey, the user will be able to use Simcenter 3D to analyze their models using finite element modeling and results visualization.  
**Roles:** Core Team Member – End User (All new Simcenter 3D users, including CAE engineers/analysts, design engineers, and CAE managers who need to manage and use Simcenter 3D (also sold as NX CAE).)  
**Level:** Associate  
**Duration:** 4 days ILT / 35 hours ODT

**Fundamentals of Using Pre/Post** 3 chapters

Learn how to analyze a model and work with analysis data in Pre/Post.

[ODT](#)

**Simcenter 3D Pre/Post** 4 days

This course introduces the Simcenter 3D Pre/Post (Engineering Desktop) product, which provides finite element modeling and results visualization. It covers the details of the finite element analysis (FEA) processes including preparing geometry, meshing, applying boundary conditions, checking the model, solving, and post-processing the results.

[ILT017001](#)

**Preparing the Model for Analysis** 7 chapters

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

[ODT](#)

**Solving the Model** 3 chapters

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

[ODT](#)

**Reviewing Analysis Results** 5 chapters

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

[ODT](#)

Proceed with the next Learning Journey:

- [Acoustics Analyst](#)
- [Design Engineer and Analyst](#)

# Learning Journey: Acoustics Analyst

At the completion of this learning journey, the user will be able to use Simcenter 3D Acoustics to analyze acoustic models to optimize the sound quality of products.  
**Roles:** Core Team Member – End User (Noise and Vibration, Acoustic, or NVH Analyst)  
**Level:** Professional  
**Duration:** 4 days ILT/ 36 hours ODT

**Working with Acoustics Models** 9 chapters  
Learn how to use Simcenter 3D Acoustics to prepare an acoustics model and review analysis results.  
[ODT](#)

**Acoustics Analysis Applications** 11 chapters  
Learn how to use Simcenter 3D Acoustics to solve problems in industry.  
[ODT](#)

**Simcenter 3D Acoustics** 4 days  
This course is designed to teach users how to analyze acoustic models to optimize the sound quality of products.  
[ILT017003](#)

# Learning Journey: Design Engineers and Analysts

At the completion of this learning journey, the user will be able to use the basic capabilities of Simcenter 3D Motion to animate and analyze kinematic and dynamic motion mechanisms.  
**Roles:** Core Team Member – End User (Design engineers, analysts)  
**Level:** Intermediate  
**Duration:** 20 hours ODT / 3 days ILT

**Simcenter 3D Motion Fundamentals** 3 days

Learn to use the basic capabilities of Simcenter 3D Motion to animate and analyze kinematic and dynamic motion mechanisms.

[ILT017004](#)

**Motion Fundamentals** 1 day

Learn to use the basic capabilities of Simcenter 3D Motion to animate and analyze kinematic and dynamic motion mechanisms.

[ODT](#)