

## Learning Module

# Automotive NVH with Abaqus

This course focuses on applying the linear dynamics capabilities in Abaqus to NVH-related simulation.

### Objectives

Upon Completion Of This Course You Will Be Able To:

- Perform natural frequency extractions.
- Perform sound radiation analyses (acoustics).
- Include nonlinear preloading effects in your NVH simulations.
- Perform Brake squeal analyses.
- Create constraints and connections for Automotive NVH models.
- Use substructuring techniques to run your NVH simulations more efficiently.
- Perform advanced NVH postprocessing (via plugins).

### Knowledge Prerequisites

This course is recommended for engineers with experience using Abaqus.

### Language(s) for selected release

English

## Contents

Overview - Automotive NVH with Abaqus

- 1 - Automotive NVH Overview
  - 2 - Modal Analysis
  - 3 - Steady-State Dynamics
  - 4 - Modal Transient Response
  - 5 - Constraints and Interactions Part 1
  - 6 - Constraints and Interactions Part 2
  - 7 - Substructures
  - 8 - Base Motion Excitation
  - 9 - Coupled Structural-Acoustic Analysis
  - 10 - Brake Squeal Analysis
- Appendices

### Brands

Simulia

### Available Releases

SIMULIA 2021, SIMULIA 2020, SIMULIA 2019, SIMULIA 2018, SIMULIA 2017, SIMULIA 2016, SIMULIA V6.14, SIMULIA V6.13, SIMULIA V6.12

### Duration

24 hours

### Discipline

Advanced Abaqus