

## Learning Module

# Composites Modeler for Abaqus/CAE

This is an advanced seminar for users who are already familiar with the native Abaqus/CAE composites modeling functionality. Therefore, the Analysis of Composite Materials with Abaqus seminar is recommended as a prerequisite. At the very least, attendees should be familiar with the Abaqus/CAE composite layup functionality. Attendees should also be comfortable postprocessing the results of composites simulations using Abaqus/CAE. An understanding of how composites are manufactured is also helpful.

### Objectives

In this course you will learn about:

- Composites Modeler for Abaqus/CAE, an add-on product to Abaqus/CAE.
- How to use Composites Modeler for Abaqus/CAE to account for accurate fiber angles and ply thicknesses in Abaqus simulations to achieve unprecedented accuracy.
- How to review and quickly modify your composites models to iteratively improve your designs.
- How to use your composites model to generate manufacturing data thereby ensuring that the analyzed model closely corresponds to the real structure.

### Knowledge Prerequisites

The Analysis of Composite Materials with Abaqus seminar is recommended as a prerequisite. At the very least, attendees should be familiar with the Abaqus/CAE composite layup functionality. Attendees should also be comfortable post-processing the results of composites simulations using Abaqus/CAE. An understanding of how composites are manufactured is also helpful.

### Contents

Overview - Composites Modeler for Abaqus

- 1 - Ply Modeling
- 2 - Draping Simulation (Part 1)
- 3 - Draping Simulation (Part 2)
- 4 - Property Generation and Mapping
- 5 - Design Linking
- 6 - Solid Element Extrusion
- 7 - Fill Solid Elements
- 8 - Failure Criteria Plug-in

### 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

16 hours

### Discipline

Advanced Abaqus

### Language(s) for selected release

English