SIMULIA Structural Simulation Essentials

Course Code	SIM-en-STRSIM_F
Brand & Release	**3D**EXPERIENCE® R2022x – R2023x
Duration	3 days
Level	Fundamentals
Prerequisites	Experience with physics simulation is strongly recommended.

Objectives:

This course is an introduction to structural simulation on the **3D**EXPERIENCE platform using the Structural Scenario Creation app. The basics of Finite Element Modeling with the Structural Model Creation app and post processing with the Physics Results Explorer app are included to provide an end-to-end view of the simulation process. You can use geometry imported/created on the **3D**EXPERIENCE platform or design with SOLIDWORKS.

Class Structure:

Upon completion of this course you will be able to:
- Create complete Finite Element models for structural and thermal simulations
- Perform structural (linear and nonlinear; static and dynamics) and thermal simulations
- View and evaluate simulation results

The course is intended for the following Roles:
- Structural Mechanics Engineer
- Structural Performance Engineer

Class Lessons:

Lesson 1: Introduction
Lesson 2: Getting Started with Simulation
Lesson 3: Meshing
Lesson 4: Materials and Section Properties
Lesson 5: Connection
Lesson 6: Steps and Static Simulations
Lesson 7: Loads, Boundary Conditions and Initial Conditions
Lesson 8: Interactions
Lesson 9: Running Simulations and Postprocessing
Lesson 10: Dynamic Simulations
Lesson 11: Nonlinear Dynamics
Lesson 12: Quasi-static Simulations
Lesson 13: Heat Transfer Simulation