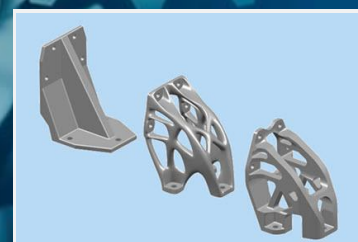


DESIGN EXPLORATION ESSENTIALS

SIMULIA COURSE DESCRIPTION



Level: Fundamental

Products: 3DEXPERIENCE

Disciplines: Design Exploration & Optimization;
Structures

Audience

This course is intended for the following role:

- Structural Generative Engineer

Why take this course?

This course is a comprehensive introduction to the structural optimization capabilities of the Design Exploration app on the 3DEXPERIENCE platform. Design exploration allows engineers to study and improve designs through topology and shape optimization, review and validate results and easily re-transfer optimized shapes into the downstream design process.

What will you learn?

Upon completion of this course, you will be able to:

- Understand design exploration on the 3DEXPERIENCE platform
- Define topology and shape design exploration studies
- Validate and review the study results

Explore Your Learning Options

Live Sessions	Engage in Real-Time, interactive group workshops guided by experts. Learn and collaborate live in your preferred language and time zone.	Join a live session
On-Demand Learning	Access expert-designed courses anytime, anywhere. Perfect for independent learners looking to build skills on their schedule.	Start Learning Now
Private Training	Exclusive, tailor-made sessions designed to meet your team's unique goals with expert guidance.	Contact Us for Custom Training



Gain hands-on experience and master real-world workflows through guided, practical training sessions.

Run simulations collaboratively within the 3DEXPERIENCE platform, connecting design, data, and analysis seamlessly.

– SIMULIA Training Expert Team

What You Need to Know Before Starting

The following course is required prior to taking this one:

- Structural Simulation Essentials or its equivalent

Agenda for Virtual Live Sessions

Participate in hands-on, real-time workshops where you'll gain practical expertise. Here's what you'll cover:

[Join an Instructor Led Session](#)

Day 1

Lesson 1: Getting Started with Generative Design

Lesson 2: Model Preparation for Topology Optimization

Workshop 1a: Topology Design Improvement of a Crane Hook - Model Preparation

Lesson 3: Design Exploration: Topology

Workshop 1b: Topology Design Improvement of a Crane Hook - Study

Lesson 4: Model Preparation for Shape Optimization

Workshop 2a: Shape Design Improvement of a Connecting Rod - Model Preparation

Lesson 5: Design Exploration: Shape

Workshop 2b: Shape Design Improvement of a Connecting Rod - Study

Want to Learn More?

Expand your knowledge by exploring our [course Catalog](#) and browsing learning paths on [Eduspace](#), our dedicated e-learning platform.

Join the Community!

[Join the SIMULIA community](#) to connect, learn, and stay updated.



3DEXPERIENCE®

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**Virtual Worlds
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