



Duration: 1 Days

Prerequisites:

- Students must have attended the introductory SolidWorks Simulation course (3 days) or must have working knowledge of the SolidWorks Simulation software. Knowledge of SolidWorks and basic mechanical engineering concepts is recommended.

Course Outline

All SolidWorks Simulation users wishing to create better designs in SolidWorks by performing analysis and evaluating the behavior of their parts and assemblies under actual service conditions.

The main topics covered include:

Lesson 1: Frequency Analysis of Parts

Modal Analysis Basics
Project Description
Frequency Analysis With Supports
Frequency Analysis Without Supports
Frequency Analysis with Load

Lesson 2: Frequency Analysis of Assemblies

Project Description
All Bonded Contact Conditions
Bonded and Allow Penetration Contacts

Lesson 3: Buckling Analysis

Buckling Analysis
Case Study: Particle Separator
Project Description

Lesson 4: Thermal Analysis

Thermal Analysis Basics
Project Description
Steady-State Thermal Analysis
Transient Thermal Analysis
Transient Analysis with Time Varying Load
Transient Thermal Analysis using a Thermostat

Lesson 5: Thermal Analysis with Radiation

Project Description
Steady State Analysis

Lesson 6: Advanced Thermal Stress2D Simplification

Thermal Stress Analysis
Case Study: Metal Expansion Joint
Project Description
Thermal Analysis
Thermal Stress Analysis
3D model

Lesson 7: Fatigue Analysis

Fatigue
Stress-life (S-N) Based Fatigue
Case Study: Pressure Vessel
Thermal Study
Thermal Stress Study
Fatigue Terminology
Fatigue Study
Fatigue study with dead load

Lesson 8: Advanced Fatigue Analysis

Case Study: Suspension
Project Description
Fatigue Study

Lesson 9: Drop Test Analysis

Drop Test Analysis
Case Study: Camera
Project Description
Rigid Floor Drop Test
Elastic Floor Drop Test
Elasto-Plastic Material Model
Drop Test with Contact

Lesson 10: Optimization Analysis

Optimization Analysis
Case Study: Press Frame
Project Description
Static and Frequency Analyses
Optimization Analysis
Design Study

Lesson 11: Pressure Vessel Analysis

Project Description
Pressure Vessel Analysis
Manhole Nozzle Flange and Cover

Please do not hesitate to contact us for registration and further information

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