



## **SolidWorks Simulation Professional**

The goal of this course is to make SolidWorks Simulation users productive with the SolidWorks Simulation Professional extension. This course will provide an in-depth coverage on the advanced topics in Finite Element Analysis (FEA) including heat transfer analysis, frequency analysis, fatigue, stability analysis based on the linear buckling concepts, and pressure vessel modulus. Example or parts and assemblies including those with various gap.contact conditions are reviewed.

The topics covered in this course are:

### **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**

- All Bonded Contact Conditions
- Bonded and Free Contact Conditions

### **Lesson 3: Buckling Analysis**

- Buckling Analysis

### **Lesson 4: Thermal Analysis**

- Thermal Analysis Basics
- 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**

- Steady State Analysis
- Full Radiation Conditions

### **Lesson 6: Advanced Thermal Stress Analysis**

- Thermal Stress Analysis



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**Lesson 7: Fatigue Analysis**

- Fatigue
- Stress-Life (S-N) Based Fatigue
- Thermal Stress Study
- Thermal Study
- Static Pressure Study
- Fatigue Study

- Fatigue Study with Dead Load

**Lesson 8: Advanced Fatigue Analysis**

- Fatigue Study

**Lesson 9: Drop Test Analysis**

- Drop Test Analysis
- Rigid Floor Drop Test
- Elastic Floor Drop Test
- Elasto-Plastic Material Model
- Drop Test with Contact

**Lesson 10: Optimization Analysis**

- Optimization Analysis
- Static and Frequency Analyses

**Lesson 11: Pressure Vessel Analysis**

- Pressure Vessel Analysis

**Prerequisites:** SolidWorks Simulation Course

**Length:** 1 Day

**Cost:** \$795