

Course Duration: 2 days

This course is targeted for the users who would like to become productive in analyzing structures subjected to various types of dynamic loading. The material covered includes the time dependent analysis (force loads as well as motion shock loading examples), harmonic analysis and random vibration analysis (MILS-STD-810F example is included), response spectrum analysis, and introduction to nonlinear dynamics simulation.

Prerequisites: Must have attended the basic SolidWorks Simulation class, or must have an experience with SolidWorks + working basic knowledge of finite elements and of basic mechanical principles. The knowledge of basic principles in Vibrations is strongly recommended, but not required.

Who should attend: Designed for users who would like to become productive fast, the advanced course offers hands-on experience on the use of SolidWorks Simulation Dynamics modules. The one-day course provides an overview on a wide range of dynamic analysis topics.

Analyses Covered

- Modal time history analysis
- Steady-state harmonic analysis
- Random vibration
- Response spectrum analysis
- Introduction to nonlinear dynamic simulation

Damping

- Rayleigh damping, modal damping, composite damping

Excitation

- Load vs. time data for nodal forces, pressure loads
- Uniform and nonuniform base excitations in the time or frequency domain for displacement, velocity and acceleration
- Harmonic excitation for nodal forces, pressure loads, uniform and nonuniform ground motions and varied phase angles
- Power spectral density (PSD) excitation curves for nodal forces, pressure loads, uniform and nonuniform ground motions
- Response spectrum analysis (SRS and VRS) excitation for uniform base motion



Contact Details

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