

**WHO IS THE COURSE FOR?**

ANSYS Mechanical Heat Transfer is a 1-day training course for engineers wishing to use ANSYS Mechanical to analyse the thermal response, involving conduction, convection, and radiation heat transfer, of structures and mechanical components. The course focuses on performing steady-state, transient, linear and nonlinear thermal analyses.

A technical education and background is recommended but an engineering degree is not required.

**DURATION**

- 1 Days

**TOPICS COVERED**

- Fundamental Concepts of Heat Transfer
- Fundamental Concepts of ANSYS Mechanical
- Steady State Heat Transfer (no mass transport)
- Nonlinear and Transient Analysis
- Additional Convection/Heat Flux Loading Options and Simple Thermal/Flow Elements
- Radiation Heat Transfer
- Phase Change Analysis
- One Dimensional Flow Elements in Thermal Analysis

**COURSE AIMS**

- To become familiar with the elements and material properties required for heat transfer analyses.
- To understand which heat transfer mechanisms are important for a particular analysis and how to model them.
- To understand when thermal analyses become nonlinear.
- To become familiar with the solution controls required for nonlinear and transient thermal analyses.
- To understand how to interpret and display pertinent results.

**RECOMMENDED FOLLOW-ON COURSES**

(Dependent upon the student's interests and applications)

- ANSYS CFX Introduction
- ANSYS CFX Combustion and Radiation