

Computer Aided Mechanical Engineering

Course Code:

ME 472

Course Type:

Area Elective

Credits:

3

Theoric:

2

Practice:

0

Laboratory Hour:

2

ECTS:

5

Prerequisite Courses:

Numerical Methods in Mechanical Engineering [1]

Course Language:

English

Course Content:

Analysis of mechanical engineering problems using conventional computational tools. Solution of differential equations that arise in various fields of mechanics such as fluids, heat transfer, and solids and structures. Discretization in space and time. First-order representation. Marching methods. Integration of equations. Runge-Kutta method. Solution of partial differential equations by finite difference method. Some commercial software will be used.