

ENGR4140 : Vibrations

Free and forced vibration of discrete and continuous systems. Lagrange's equation, Fourier series, Laplace transforms; matrix and computational methods. Linear vibration of machine elements, lumped parameter single and multi-degree of freedom systems solutions; computer-aided solutions of linear and nonlinear systems; simple laboratory vibration measurement and comparative vibration analysis. Natural and forced motions, and dynamic loading; vibration of elastic bodies.

Credits 3

Prerequisite Courses

ENGR2110

Fees

Additional fee required.