

Course Catalog - Fall 2006

Theoretical and Applied Mechanics

514 ***Elastodynamics and Vibrations*** credit: 4 hours.

Review of theory of multi-degree-of-freedom systems; problems in the free and forced vibration of continuous linear elastic structures, rods, beams, membranes, plates, and three-dimensional solid and fluid bodies; Lagrangian densities, Sturm Liouville problems, time and frequency domains, damping, Green's functions, and elastic waves; propagation and modal analysis; modeling of damping in structures; and response of complex structures Same as ME 545. Prerequisite: TAM 412, TAM 542, and TAM 551; or equivalents.