

## **ME 463 Mechanical Vibration**

Single-degree-of-freedom system with Coulomb friction.

Response of single-degree-of-freedom system to arbitrary input.

Convolution integral.

Multiple degree-of-freedom systems: Lagrange's equations, natural frequencies, natural modes, modal analysis, modally damped systems, free and forced response.

Undamped continuous systems with one spatial variable: transverse vibration of springs, axial vibration of rods, torsional vibration of shafts, bending vibration of elementary beams.