

# ME 5441: Advanced System Modeling

Lumped-parameter modeling of multiphysics dynamic systems, with examples from bioengineering and mechatronics; unified network thermodynamics approach using bond graph techniques to analyze interactions between mechanical, electrical, fluid, or thermal domains; computer simulation of system response.

**Credits:** 3.0

**Prerequisites:**

ECE 2030

ME 3100 and ME 3102 and ME 3600 and ECE 2030

**Program:** [Mechanical Engineering](#)