Research in the Department of Mechanical Engineering is motivated by the challenges of the 21st century and grounded in the fundamentals of the mechanical sciences. Our general goal is the advancement of multi-scale engineering, the creation and application of an engineering knowledge base that spans a broad range of scales: from nano-micro structures to complex large-scale systems. Multi-scale engineering requires the integration of knowledge across the traditional engineering disciplines as well as across the natural range of physical scales.

Our faculty strengths, when grouped by traditional disciplines, are in the areas of:

- Applied Mechanics
- Controls and Dynamical Systems
- Biomedical Engineering
- Design of Mechanical Systems
- Materials Engineering
- Thermal and Fluid Sciences

Please see the listing of Laboratories and Facilities to learn more about the specific research activities in these areas.