

MECHANICAL ENGINEERING, PHD

The doctoral program in the Department of Mechanical Engineering prepares students to perform independent research in areas of faculty expertise within the department. The PhD program in Mechanical Engineering is designed to train outstanding students for advanced work in industry, national labs, and academia through a combination of coursework and hands on research.

PhD students are mentored by faculty to become world-class researchers. The Department of Mechanical Engineering has a long history of excellence in graduate education. The department is consistently ranked in the top 20 in the United States for graduate programs in mechanical engineering. The department offers research opportunities in a large number of established and emerging research specializations. Broad research themes within the department include: advanced manufacturing, biomechanics, computational engineering and design, energy systems, fluid and solid mechanics, and robotics, controls and sensing. Excellent research facilities are available for specialized research within these broad areas for studies in: biomechanics, combustion, computational design, controls, cryogenics, dynamics and vibrations, fluid dynamics, fluid power, geometric modeling and prototyping, heat and mass transfer, internal combustion engines, laser diagnostics, manufacturing processes, mechanics, mechatronics, polymer and composites processing, powertrain control, robotics, solar energy, and more.

For a list of mechanical engineering faculty along with faculty research interests, please visit our faculty directory (<https://directory.engr.wisc.edu/display.php/faculty/?page=me&search=faculty>). For more information on research areas see our page on research in Mechanical Engineering (<https://www.engr.wisc.edu/department/mechanical-engineering/research-in-mechanical-engineering/>).