

PH.D. IN MECHANICAL ENGINEERING

The Ph.D. in Mechanical Engineering is ideal for students looking to pursue advanced-level careers in industry, research, or academia. Students pursuing a Ph.D. in Mechanical Engineering undertake advanced research under the mentorship of a faculty advisor (Principal Investigator), most often on a government or industry funded project as a paid research assistant. The degree plan involves consideration of a challenging problem utilizing analytical, experimental, and/or design techniques. This research – in addition to coursework, exams, journal articles, and dissertation credits – culminates in a final dissertation. The dissertation contains new analytical knowledge, experimental knowledge, design knowledge, or a combination thereof. The dissertation must make an original contribution to the field.

[Students interested in graduate work should refer to the Graduate and Professional Bulletin.](#)

Learning Objectives

1. Bring together faculty members and graduate students in a diverse community of scholars having a common interest in advanced professional study and creative work.
2. Extend the boundaries of the mechanical engineering profession by developing advanced technologies to provide creative solutions to global problems such as energy, environment and human health.
3. Consideration of a challenging problem utilizing analytical, experimental, and/or design techniques 1) to determine and explain the behavior of a simple system, or 2) to bring into logical order the techniques of a field which has experienced random growth.
4. Develop new analytical knowledge, experimental knowledge, design knowledge, or a combination thereof.