

The Graduate Program in Mechanical & Aerospace Engineering (MAE) trains PhD students in the scientific and engineering fundamentals in the broad set of core disciplines required in the mechanical and aerospace engineering fields. Students exiting the program should be prepared meet present and future challenges at the forefront of mechanical & aerospace engineering.

Learning Goal 1 for Students: Attain mastery of the essential aspects of practice and research in mechanical and/or aerospace engineering.

Assessment of student achievement of Goal 1:

- Grades in graduate courses.
- Assessment of student's depth and breadth of knowledge in qualifying examination by committee of graduate faculty members.
- Placement of students in academic or professional positions that require skills and fundamental knowledge of mechanical and/or aerospace engineering.

Roles of the program in helping students to achieve Goal 1:

- Close advising beginning with an orientation upon arrival and including tracking of milestones and professional development.
- Evaluations of course quality and teaching effectiveness.
- Periodic review of curricular offerings, degree requirements and assessment tools.

Learning Goal 2 for Students: Engage in and conduct original research.

Assessment of graduate student achievement of Goal 2:

- Assessment of quality of PhD dissertation by critical reading by committee of graduate faculty members.
- Public defense of thesis or project.
- Achievement of students as evidenced by professional placement, continuation of graduate studies, selection for conference presentations, peer-reviewed publications, or patent applications.

Role of the program in helping graduate students to achieve Goal 2:

- Provide formalized process for learning about research opportunities through faculty presentations and an updated list of available research topics.
- Provide opportunities to present research/project and receive feedback through student seminars.
- Provide comprehensive advising and assist in the identification of mentors.

Learning Goal 3 for Students: Prepare students to be able to pursue academic positions, be leaders in industry and government, and/or be entrepreneurs in their fields.

Assessment of graduate student achievement of Goal 3:

- Publication of peer-reviewed journal articles and conference papers based on their research.
- Participation in professional networking through department activities.
- Participation in internships and other work tailored to career goals.
- Collection of placement data.
- Review by industrial advisory board.

Role of the program in helping students achieve Goal 3:

- Host professional development and career exploration activities .
- Provide flexible options for students with interdisciplinary interests related to mechanical & aerospace engineering.
- Host seminars by external faculty in mechanical & aerospace engineering-related fields.
- Develop or enhance programs related to job and networking skills, including activity in professional societies.

The leadership of the Mechanical & Aerospace Engineering graduate program will regularly review the structure and content of the program and the feedback received from assessments and surveys. These reviews will be used to provide the best possible education to students to meet the needs for highly trained individuals in mechanical & aerospace engineering.