

# MECHANICAL ENGINEERING, PHD

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## The Ph.D. Program

The Doctor of Philosophy (Ph.D.) normally requires four to five years of full-time study beyond the baccalaureate degree. There is no formal course requirement for a doctoral degree. The student develops a technical program involving both research and course work with the help of their faculty advisor.

PhD candidates must pass the Departmental Qualifying Exam (usually taken at the end of the second semester of graduate study), successfully submit a doctoral dissertation proposal (usually during the third-year of full-time study), complete a doctoral dissertation, and pass the final Graduate Board Oral exam and the dissertation defense.

## Admissions

To be admitted to graduate study in the Department of Mechanical Engineering, applicants must submit credentials sufficient to convince the faculty that they will thrive in a program of advanced course work and research. Graduate Record Examination scores must be submitted.

## Advising

Each graduate student is assigned to a faculty advisor to map a program for the first year and enter the intellectual life of the department. The student will remain in regular communication with the advisor. The advisor may use a variety of methods to assess the student's progress. It is not necessary that a student have the same advisor in successive years. After serious research for a dissertation has begun, the research supervisor will automatically function as advisor.

All Ph.D. students are required in their first three years, and master's students are encouraged during their time here, to register for EN.530.803 Mechanical Engineering Graduate Seminar and attend its weekly Mechanical Engineering Graduate Seminars.

## Our Alumni

**Where Do our PhD Graduates Go?** Visit our PhD Alumni page (<https://me.jhu.edu/alumni-giving/phd-alumni-by-year/>) to see where our PhD graduates have made their mark around the world. You, too, can join this elite group with an admission to our PhD program!

## Program Requirements

Although there are no formal course requirements, students are presumed to be prepared by studies equal to six 600-level courses in their field of specialization and six courses in related fields. All candidates for the doctorate must complete two semesters as a teaching assistant as part of their training. All students are required to follow a course of study approved by their individual advisor.

In addition to general university requirements, the student must complete the following requirements:

- Achieve an unconditional pass in the oral Departmental Qualifying Exam based on core courses. This exam is usually taken after the second semester.
- Submit a Doctoral Dissertation Proposal that will serve as a base for research and dissertation by the end of the third year.

- Complete research and write the Doctoral Dissertation.
- Achieve an unconditional pass in the Graduate Board Oral examination satisfying the Graduate Board requirements. This is a comprehensive examination in which students must demonstrate proficiency at the graduate level in their field of specialization.
- The final and principal requirement for the doctorate is to successfully defend the Doctoral Dissertation in a final oral presentation and examination, also known as the "dissertation defense."

Additional details on Ph.D. requirements and departmental academic policy for the Ph.D. degree can be found on the Mechanical Engineering Graduate Advising page (<https://me.jhu.edu/education/graduate-studies/advising/>).