MECHANICAL ENGINEERING, PHD

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), pass the Graduate Board Oral exam (usually taken during the third year of full-time study), submit a doctoral dissertation, and pass a final 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, to attend the 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
In addition to general university requirements, the student must pass two exams. The first is an oral Departmental Qualifying Exam based on core courses. This exam is usually taken after the second semester. The second is a preliminary 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.

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.

The final and principal requirement for the doctorate is a piece of original research worthy of publication. Candidates must write a dissertation describing their work in detail and successfully defend it 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/).