

Mechanical & Aerospace Engineering Department
Department Qualifying Examination (DQE)

Course Requirements and Exam Format for PhD Students Admitted Prior to FALL 2021

The PhD Department Qualifying Examination (DQE) is intended to determine a PhD candidate's ability to successfully pursue a research project at a level appropriate for the doctoral degree. The DQE is an oral examination administered by a committee of three faculty members, one of whom must be the student's faculty advisor. A fourth committee member from another department is optional.

3 Committee Members:

1. MAE Faculty Advisor
2. MAE Faculty
3. MAE or outside MAE Faculty
4. Optional 4th member MAE or Outside MAE

A PhD student must successfully pass the DQE before the end of their second full year in the program (at the conclusion of their first six quarters in residence). **The DQE is required of all PhD students, regardless of previous institution or degree level.** A written or oral MS examination or a preexisting MS degree do not serve as substitutes for the DQE.

A student can take the DQE twice; if the student fails the exam after the second attempt, the student will not be permitted to continue in the PhD program.

Prior to taking the DQE, PhD students must submit the **DQE Form** to the PhD Graduate Coordinator with Section I completed (including student and advisor signature).

The DQE will be based on material taught over 36 units (9 courses) in three specialization areas:

- Major (4 courses)
- Minor (2 courses)
 - If the minor is chosen from a department other than MAE, the student must take two additional courses from an MAE Major area.
- Basic Science or Mathematics (3 courses).

Courses must be selected from the **Graduate Course Structure for MS and PhD students**.

A PhD student entering the program *without* a Master's Degree must complete 36 units of coursework (9, 4-unit courses) with the following conditions:

- 6 of the 9 courses must be 200-level MAE courses, MUST be approved by the faculty advisor, and MUST be taken for a letter grade.
- 3 of the 9 courses must be 200-level or upper-division undergraduate courses in a STEM field, MUST be approved by the faculty advisor, and MUST be taken for a letter grade.

A PhD student entering the program *with* a Master's Degree must complete 36 units of coursework (9, 4-unit courses) with the following conditions:

- 6 of the 9 courses must be 200-level or upper-division undergraduate courses in a STEM field, MUST be approved by the faculty advisor, and may be taken S/U.
- 3 of the 9 courses must be 200-level MAE courses, MUST be approved by the faculty advisor, and MUST be taken for a letter grade.
- A maximum of 12 units of MAE 299 may be used to replace 3 of the 9 required courses and MUST be approved by the faculty advisor.