

Program of Study Mechanical Engineering Ph.D. Program Requirements

Total Credits Required:

72 Credits - students without an approved master's degree

42 (or more) credits - students with an approved master's degree

Core Course Requirements (9 credits):

- EML 6105 Advanced Thermodynamics and Statistical Mechanics (3)
- EML 6653 Applied Elasticity (3)
- EML 6060 Advanced Engineering Math II (3)

Electives - 5000 level and above (27 credit hours)

Graduate level electives are selected in consultation with the student's major professor, graduate advisor and dissertation advisory committee.

Independent Study, Directed Research and/or Dissertation credits may not be counted toward this requirement.

Dissertation Credits (20 credit hours):

A minimum of 20 credits of Dissertation, an approved Ph.D. dissertation and a dissertation defense are required. Students may not sign up for dissertation credits until they have defended their proposal and have advanced to candidacy.

Doctoral dissertation committee:

The Ph.D. Committee consists of at least five members. A major professor and a minimum of four additional members are required, one of which must be from a different engineering department and one from another college. Note that students must submit a CV for any proposed committee member who is not a member of the [graduate faculty](#) of USF.

Qualifying Exam:

The qualifying examination must be passed before admission to doctoral candidacy. The purpose of the Qualifying Examination is to determine if the student will produce a significant new contribution of knowledge in their field. For the written examination, each student will produce a document that includes a literature review and an original research proposal. Students are expected to pass the Qualifying Exam within two years from entry into the Ph.D. program. Poor performance on the qualifying exam based on the judgment of the committee may result in the student failing the exam. If a student does not pass on the first attempt, they may request in writing to repeat the exam. Students will be given a maximum of two attempts to pass the qualifying examination. Failure in the second attempt will result in being dropped from the doctoral program.

