

**Requirements, Procedures, and Guidelines for the  
Doctor of Philosophy in Mechanical Engineering  
Department of Mechanical Engineering**

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**Degree Requirements with Bachelor's Degree**

- [1] Each student must complete at least 84 standard credit hours (SCH) beyond the Bachelor's degree.
- [2] Of these 84 SCH, 54 SCH are formal course work, 24 SCH are doctoral research and 6 SCH are for doctoral dissertation
- [3] Of the 54 SCH, 33 SCH must come from approved mechanical engineering graduate classes
- [4] The only required course is MECH 5301 Mathematical Methods for Mechanical Engineers
- [5] The remaining 18 SCH of the required 54 SCH of organized course work will be fulfilled by a selection of elective courses
- [6] Of the 54 SCH of course work (not including doctoral research and dissertation), a minimum of 18 SCH must be 6000 level
- [7] Enrollment of the candidate in research and dissertation courses will complete the remainder of the 84 semester hours.
- [8] All degree requirements must be completed within nine years
- [9] These requirements are summarized in Table 1

Category	Semester Credit Hours
<b>Required Courses</b>	3
<b>Mechanical Engineering Electives</b>	33
<b>Free Electives</b>	18
<b>Doctoral Research</b>	24
<b>Doctoral Dissertation</b>	6
<b>Other (Specify, e.g., internships, clinical work, residencies)</b>	0
<b>TOTAL<sup>1</sup></b>	84

Table 1: Degree Requirements for Entering Students with a Bachelor's Degree or Equivalent

**Degree Requirements with Master's Degree**

- [1] Each student must complete at least 60 standard credit hours (SCH) beyond the Master's degree.
- [2] Of these 60 SCH, 30 SCH are formal course work, 24 SCH are doctoral research and 6 SCH are for doctoral dissertation
- [3] Of the 30 SCH, 15 SCH must come from approved mechanical engineering graduate classes

<sup>1</sup> Please note that Education Code 61.059 limits funding for doctoral programs to 99 SCH, unless exempted by the THECB.

- [4] The only required course is MECH 5301 Mathematical Methods for Mechanical Engineers
- [5] The remaining 12 SCH of the required 54 SCH of organized course work will be fulfilled by a selection of elective courses
- [6] Of the 30 SCH of course work (not including doctoral research and dissertation), a minimum of 21 SCH must be 6000 level
- [7] Enrollment of the candidate in research and dissertation courses will complete the remainder of the 60 semester hours.
- [8] All degree requirements must be completed within seven years
- [9] These requirements are summarized in Table 2

Category	Semester Credit Hours
<b>Required Courses</b>	3
<b>Mechanical Engineering Electives</b>	15
<b>Free Electives</b>	12
<b>Doctoral Research</b>	24
<b>Doctoral Dissertation</b>	6
<b>Other (Specify, e.g., internships, clinical work, residencies)</b>	0
<b>TOTAL</b>	60

Table 2: Degree Requirements for Entering Students with a Master’s Degree or Equivalent

### Dissertation Supervisor and Doctoral Committee

- [1] Each student must identify a dissertation supervisor no later than 42 SCH beyond the completion of their Bachelor’s degree.
- [2] A doctoral committee must be formed no later than 54 SCH beyond the completion of their Bachelor’s degree. Typically the committee is formed the semester prior to the dissertation proposal review
- [3] The composition of Doctoral Committee must meet the criteria as published in the University of Texas at El Paso (UTEP) Graduate Catalog. There must be a minimum of three members with one being from outside of the mechanical engineering program.
- [4] All doctoral committee members, including the member external to the department, must be approved by the Mechanical Engineering Graduate Program Director.

### Dissertation Proposal Review and Candidate Review

- [1] A dissertation proposal must be prepared, reviewed and approved by the doctoral committee to be admitted to candidacy and before enrolling in doctoral dissertation.
- [2] Students must apply for candidacy no sooner than 48 SCH, and no later than 66 SCH beyond the completion of their Bachelor’s degree. Students beyond this point must seek approval from the Mechanical Engineering Program Director to continue in the program.

- [3] The dissertation proposal consists of an oral presentation to their doctoral committee
- [4] Each student must have a minimum 3.0 cumulative GPA at the time of the dissertation proposal.
- [5] At the time of the dissertation proposal, for students with a GPA less than 3.3, the dissertation committee may choose to give the student an oral exam based upon the material needed for the dissertation and/or any material from the relevant course work. This exam will be used in the committee's decision as to whether the applicant may be admitted to candidacy.

### **Promotion to Candidacy**

- [1] After successfully proposing their dissertation, and with approval of the dissertation committee and the Mechanical Engineering Graduate Advisor, a student can then apply for the admission to candidacy. The application for candidacy form can be downloaded from the UTEP Graduate School website.
- [2] Upon approval of the application for candidacy by the Dissertation Committee, Graduate Advisor, College Dean and the Dean of the Graduate School, the student becomes a doctoral candidate.
- [3] Once admitted to candidacy, students are required to continuously register for doctoral dissertation
- [4] Once admitted to candidacy, students must submit the Doctoral Candidate Progress Report every semester. This form can be downloaded from the UTEP Graduate School website.

### **Dissertation**

- [1] The dissertation must demonstrate the ability to perform independent research and the competence for technology development and scholarly exposition. It should present original work at an advanced level of a significant problem in mechanical or closely related engineering disciplines. The dissertation should provide the basis for intellectual property and new technology development and/or publishable contributions to the research literature in the field.
- [2] Each doctoral candidate must successfully defend the dissertation before their dissertation committee.
- [3] The dissertation, including an abstract not to exceed 350 words, must be prepared according to the Graduate School's thesis and dissertation guidelines required by the UTEP Graduate School
- [4] An electronic copy of the dissertation must be submitted to the Graduate School for format check prior to the scheduled defense date. The student will receive email confirmation from the Graduate School after the format has been approved.
- [5] The final Graduate School approved dissertation must be submitted to the Graduate School in PDF electronic format on a CD in a case by the deadline as published in the Class Schedule along with a hard copy of the signature page with original signatures of the dissertation committee members. The signature page must be included in the PDF file, but it should not be signed.
- [6] The dissertation must meet the criteria as published in the University of Texas at El Paso (UTEP) Graduate Catalog.

## Departmental Requirements and Notifications

- [1] Students are required by the Graduate School to submit their Degree Plan form by the end of their first semester in the program.
- [2] The Department requires that the students update their Degree Plan to register for the upcoming semester. This must be filed with the Graduate Program Coordinator and students will not be allowed to register unless the Degree Plans are updated.
- [3] Students must notify the Mechanical Engineering Graduate Program Director immediately once the Dissertation Committee is informally decided upon, this is done with the Dissertation Committee Form.
- [4] The Dissertation Proposal and Candidacy Review process is initiated by the student notifying the Graduate Program Coordinator at least two weeks prior to the proposal. Within one week of successful completion of the proposal and candidacy review the student must submit the Application to Candidacy form to the Graduate School and the Mechanical Engineering Graduate Program Coordinator.
- [5] Once a student is admitted to candidacy they are required to fill out the Doctoral Candidacy Progress Report every semester. This form must be submitted to the Mechanical Engineering Graduate Program Coordinator by September 1 for Fall Semester, by January 15 for Spring Semester, and June 2 for Summer Semester.
- [6] Students must notify the Mechanical Engineering Graduate Program Coordinator at least two weeks before the dissertation defense date.

## Credit Transfers and Master's Degree Conference

- [7] Entering students wishing to transfer credit need to do so within the first year.
- [8] Students wishing to obtain a Master's Degree in Mechanical Engineering as well as the PhD will need to take an additional 6 SCH of Master's Thesis.

For additional information please visit:

UTEP Graduate School (<http://academics.utep.edu/graduate>)  
Department of Mechanical Engineering (<http://me.utep.edu>)

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