

Walker Department of Mechanical Engineering Graduate Student Handbook 2024-2025

Degrees

Master's of Science in Engineering
Doctor of Philosophy

Areas

Acoustics
Biomechanical Engineering
Dynamics Systems & Controls
Manufacturing & Design
Materials Engineering
Nuclear & Radiation Engineering
Thermal/Fluid Systems

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1. INTRODUCTION

OBJECTIVES

The graduate program in mechanical engineering is designed to educate engineers who will be in the forefront of the mechanical engineering profession, leading the way to new and improved engineering systems to transform energy, materials, and information to meet the needs of society. To achieve this objective, the program offers a breadth of research and study areas and facilities. The faculty values creativity, the novel application of fundamental engineering science, interdisciplinary activities, the development of future leaders and a community of scholars, professionalism, and excitement in discovery. The program is designed to enhance these values, drawing upon the diverse interests and experience of the faculty.

[The Graduate Catalog](#) of the University contains degree requirements for all graduate programs, rules that affect graduate students, descriptions of graduate courses, and a list of Graduate Studies Committee (GSC) Members. This document is the authority for all graduate students. These rules are supplemented by the rules of the University and rules imposed by the Mechanical Engineering GSC. The Graduate Adviser has the responsibility to interpret the rules in specific cases. Each technical area in Mechanical Engineering Graduate Program may also have rules and procedures enforced by the Graduate Adviser.

PLEASE NOTE: This Handbook is not meant to be all-inclusive. It includes guidelines to aid your pursuit of a master's or doctoral degree in the Mechanical Engineering Graduate Program. If you need clarification, consult the Graduate School Catalog, degree evaluators in the Graduate School Office (MAI 101), your faculty advisor/supervisor, the ME Graduate Program Administrator, or the ME Graduate Adviser. More information about the graduate program can be found online at <https://www.me.utexas.edu/graduate>.

ORGANIZATION AND ADMINISTRATION

The Graduate Adviser (GA) is a member of the GSC who advises all graduate students in the graduate program and represent the Graduate School in matters pertaining to graduate students. Questions about degree requirements and academic policies should be directed to the graduate advisor.

The Graduate Program Administrator (GPA) assists the graduate adviser and the GSC by keeping complete academic records for the students and ensuring that paperwork is processed in a correct and timely manner. They field all student questions and accepts walk-ins during normal workday hours.

Your faculty advisor/supervisor directly supervises your research. He/she plays a vital role in all areas of your graduate education; therefore, it is important that you discuss your research regularly with your faculty advisor/supervisor.

The following individuals currently administer the graduate programs in ME Department:

Dr. Michael Cullinan, Mechanical Engineering Graduate Advisor & Chair of the Graduate Studies Committee, ETC 4.154, 512-471-0262

Dr. Preston Wilson, Mechanical Engineering Assistant Graduate Advisor, ETC 4.152A, 512-475-9093

Dr. John Hasenbein, Operations Research & Industrial Engineering Graduate Advisor ETC 5.128B, 512-471-3079

Dr. Jonathan Bard, Chair of the Operations Research & Industrial Engineering Graduate Studies Committee, ETC 5.126, 512-471 3076

For questions, email graduate-office@me.utexas.edu

2. ENROLLMENT IN THE UNIVERSITY

2.1 Advising

Generally, students are advised on coursework by their research advisor. If you do not have a research advisor/supervisor, you should consult with either your area coordinator or another faculty member from your area. You will complete an online registration advising form which will be routed to the Graduate Program Administrator after you and your advisor or area coordinator have signed. Your advising hold will be removed upon receipt of the completed form, so that you may register online.

Please be aware that some courses (ME 397P/ORI 397P) are "restricted courses" and require an additional form to be filled out and signed in order to register. These forms can be found online on the ME Graduate Program [website](#).

2.2 Registration and Courses

If you are a full-time student, you must enroll in at least nine (9) credit hours for each long semester (fall & spring.) Full-time status in the summer is three (3) hours. Students who work as a TA or GRA in any semester must maintain full-time registration status. If you are working as TA or GRA in the summer, you must remain registered for 3 hours.

The Research courses (180M, 280M, 380M, 680M, and 980M) and the Seminar courses (197K/397K) may all be used to fulfill your minimum registration requirement (to reach 3 or 9 hours), but they may not count toward the completion of your graduate degree. Only one Graduate Research Internship (397M) course may count toward the completion of your graduate degree.

In the fall and spring semesters, you may add or drop ME, ORI and other departments' courses via the web during the first four class days. From the 5th until the 12th class days in each long semester, you may add or drop ME and ORI courses in the ME Graduate Program Office. If you need to add/drop any non-ME/ORI courses from the 5th-12th class day, you must contact the department offering the course. Add/drop after the 12th class day is strongly discouraged. You will be charged a penalty to drop a course after the 12th class day. Please contact the Graduate Program Administrator for add/drop after the 12th class day.

You may change registration in a class to or from the credit/no credit basis (CR/NC) during any given semester. Check the university's [Academic Calendar](#) for the last possible date to change the grade status of a course.

FOR MSE STUDENTS:

Although courses are generally not taken on the credit/no credit basis, up to 20% of coursework may be taken on a credit/no credit basis, not including thesis hours. Click [HERE](#) for more on the Graduate School's requirements. Please check with your research advisor/supervisor to verify which courses, if any, can be taken on the credit/no credit basis.

You may take up to six (6) hours of *upper-division* undergraduate courses in your degree program. Courses taken for your BS degree and undergraduate courses taken while you are still classified as an undergrad (even if not used for your BS degree) may not be included in this allowance of six upper-division hours and

Only coursework taken within the last six years can count toward your MSE degree.

FOR PHD STUDENTS:

All courses counted toward your PhD degree must be letter-graded, graduate-level courses. Only coursework taken within the last six years can be used on PhD Program of Work before advancing to candidacy.

COURSES BY ACADEMIC AREA:

ACOUSTICS

Coursework is offered by Acoustics Area faculty in a wide variety of topics pertinent to Acoustics. These courses are categorized as Undergraduate Courses and Graduate Courses. In addition to these courses, there are a number of Related Graduate Courses offered within other areas of the Department of Mechanical Engineering and through other departments. Courses not listed on this page may also be acceptable in a program of study. All courses must be approved by the student's thesis/dissertation supervisor, thesis/dissertation committee, and the chair of the graduate studies committee.

Acoustics Area Related Graduate Courses

Additional information about acoustics-related courses within the ME department and across campus are listed on [Courses on the Texas Acoustics](#) site. Please check the [Online Course Schedule](#) and the [Online Graduate Catalog](#) from the [Office of the Registrar](#) to find additional courses which may be of interest.

BIOMECHANICAL ENGINEERING

Coursework is offered by BME Area faculty in a wide variety of topics pertinent to Biomechanical Engineering. All courses must be approved by the student's thesis/dissertation supervisor, thesis/dissertation committee, and the chair of the graduate studies committee. Please check the [Online Course Schedule](#) and the [Online Graduate Catalog](#) from the [Office of the Registrar](#) to find additional courses which may be of interest.

DYNAMIC SYSTEMS AND CONTROLS

- The DSC area does not set any area specific course requirements. Faculty supervisors are encouraged to design a course plan for each student which employs all available university course resources to address each student's needs.
- Not every course is offered every semester, consult the course catalog for course availability.
- The final degree plan for each student must be approved by the Graduate Advisor. In the case of PhD students, the final course plan must also be approved by the dissertation committee.
- Courses are listed in the format used in the on-line (registration) course schedule. More detailed course descriptions can be obtained by consulting the online [Graduate Catalog](#).

MANUFACTURING AND DESIGN

- The M&D area does not set any area specific course requirements for students in the Thesis or Report options. Faculty supervisors are encouraged to design a course plan for each student which employs all available university course resources to address each student's needs. If you do not have a Faculty supervisor, contact the M&D area coordinator for registration advising.
- Students in the Thesis MSE option are required to complete 8 three credit courses and two master's thesis courses, Thesis A and Thesis B, taken in two separate semesters. Students in the Report MSE option discuss their plans with their faculty supervisor.
- Students in the coursework only (No-Thesis, No-Report) option, including MSE students, must adhere to [course plan guidelines](#). Contact the M&D area coordinator for registration advising
- Note that not every course is offered every semester. Consult the course catalog or schedule for course availability.

MATERIALS ENGINEERING

Coursework is offered by ME Area faculty in a wide variety of topics pertinent to Materials Engineering. These courses are categorized as Core Courses and Additional Courses. In addition to these courses, there are a number of Supplemental Courses offered within other areas of the Department of Mechanical Engineering and through other departments. Courses not listed on this page may also be acceptable in a program of study. All courses must be approved by the student's thesis/dissertation supervisor, thesis/dissertation committee, and the chair of the graduate studies committee. The Materials Science & Engineering Area also offers Undergraduate courses in the Undergraduate Technical Option Area.

Please check the [Online Course Schedule](#) and the [Online Graduate Catalog](#) from the [Office of the Registrar](#) to find additional courses which may be of interest.

ME Area Core Courses

Students must take at least 3 core courses listed as below:

- Thermodynamics: ME 386P3
- Phase Transformations: ME 386P1
- Choose 1 from 3 below:
 - Mechanical Behavior of Materials: ME 386P2
 - Structure of Materials: ME 386P5
 - Solid State Properties of Materials: ME 386P4

To qualify for PhD candidacy, students must maintain a 3.3 GPA in the three required core courses and show sufficient progress in research. If you do not have a 3.3 GPA in your core courses, you may take one additional semester to complete additional core courses and raise your GPA to 3.3. Note that if you are required to take 4 core courses, the GPA for your core courses is computed based on the average for all four core courses. You cannot retake a class to raise your core course GPA. Discuss your class selections with your supervisor and the Graduate Advisor to ensure you are on the right track.

NUCLEAR AND RADIATION ENGINEERING

Coursework is offered by ME Area faculty in a variety of topics pertinent to Nuclear and Radiation Engineering. Please check the [Online Course Schedule](#) and the [Online Graduate Catalog](#) from the [Office of the Registrar](#) to find courses which may be of interest.

THERMAL FLUID SYSTEMS

The Thermal Fluid Systems graduate curriculum is designed to give all students in the program proficiency in fluid mechanics, heat transfer and thermodynamics, as well as the mathematical, experimental and computational tools needed to work in these disciplines. It is also designed to provide students the opportunity to pursue in-depth study in each of these broad disciplines. The coursework component of the TFS graduate program includes five or six required courses for students pursuing M.S. or Ph.D. degrees respectively. The required courses are defined in the following section, followed by a listing of the courses making up the TFS graduate curriculum.

1. Required Courses

Graduate students pursuing degrees in Thermal Fluid Systems are required to take the following courses:

1. In fluid mechanics:
 - ME 381P1: Fundamentals of Incompressible Flow
2. In heat transfer, either:
 - ME 381R4: Fundamentals of Heat and Mass Transfer, or
 - ME 381R1, ME 381R2 & ME 381R3 (see descriptions in section 2.2 below)
3. In thermodynamics:
 - ME 381Q1: Advanced Thermodynamics
4. In experimental methods, for M.S. students who do not take the computational methods course (see below) and all Ph.D. students take one of the following:
 - ME 382P1: Advanced Experimental Methods for Thermal/Fluid Systems
 - ME 382P2: Lasers and Optics

5. In computational methods, for M.S. students who do not take an experimental methods course (see above) and all Ph.D. students:
 - ME 382N3: Computational Methods for Thermal/Fluid Systems
6. In mathematics, one of the following:
 - PGE 381K: Engineering Analysis
 - ASE 380P1: Mathematical Methods in Applied Mechanics I (same as EM386K)
 - ME 380Q1: Engineering Analysis: Analytical Methods

For PhD students who come to The University of Texas with an MSE, the course work experience from the student's MSE program will be evaluated to determine which of the above requirements have been satisfied in the MSE program. Furthermore, students may petition to substitute substantially similar courses for those listed above, provided they provide a reason that the substituted course is more appropriate for their program.

For students pursuing interdisciplinary programs, requirements will be adjusted to include mathematics, experimental methods and/or computation, and disciplinary courses that are appropriate for the program.

2.3 Financial Aid

Several types of financial aid are available to continuing students on a competitive basis.

- **Fellowships:** For exceptionally qualified individuals, a few college-level and university-level fellowships are available through the recommendations of the ME Graduate Student Recruitment Committee. However, the ultimate awarding of graduate fellowships is done by the college-level and university-level fellowship committees.
- **Teaching Assistantship (TA):** Teaching assistants are selected from applications submitted to the Academic Advising Office. Teaching Assistants in their first semester of a TA appointment must complete the [Teaching Assistant Certification](#) provided by the Cockrell School of Engineering. Foreign students must pass the ITA English Assessment Test (through the International Office) and attend their orientation in order to become eligible to work as a TA. The department covers the cost of the ITA English Assessment for *offer students (students guaranteed a financial offer by the department.)* The TA salary is paid out as a monthly stipend at the beginning of each month for the previous month.
- **Graduate Research Assistantship (GRA):** Graduate research assistantships (GRAs) are awarded by individual faculty members. Interested students should talk to the faculty about the availability of support. GRA stipends are paid at the beginning of each month for the previous month.
- **Professional Development (Travel) Awards (PDAs):** PDAs are available to help defray expenses for a few advanced doctoral students attending major professional meetings. Priority is given to students who are in their last year of doctoral study and have had a paper accepted for presentation at a major professional meeting. Talk to the Graduate Program Administrator about applying for this type of award.

*Arrangements for a GRA must be made **prior** to the semester in which it is to be effective. If you accept a teaching assistantship, you cannot change to a GRA **after the first day of classes**.

2.4 Out-of-State Tuition Waivers

All “benefits-eligible” students (20-hr appointment as a GRA or TA for a full semester) or students with scholarships of at least \$1,000, are eligible to pay resident tuition. Unfortunately, resident tuition is NOT billed automatically. If you meet the requirements, you must complete the waiver on-line [here](#) each semester. Students whose tuition is being paid through faculty grants should ask their supervising professor to provide all of the necessary information to the applicable support staff so that an electronic document can be created to pay for all or part of your tuition. If you have any questions concerning this matter you may check with the Graduate Program Administrator or your supervisor. **Even if your full tuition is paid and the balance is zero, you must still confirm your \$0.00 fee bill by the due date.**

2.5 Health Insurance Waivers

All benefits-eligible (20-hr appointment) international students will automatically qualify for employee insurance. You must apply for a Health Insurance Waiver online [here](#) each semester in order to prevent being billed for student insurance. All students are required to carry health insurance, information can be found [here](#).

3. MSE DEGREE GUIDELINES

Students are strongly encouraged to develop a degree plan right after the first enrollment. A Program of Work (PoW) is a form that you will need to complete before graduation. It is highly advisable that you review the PoW as soon as possible in the process of developing your degree plans.

3.1 Degree Requirements

There are three Master of Science in Engineering (MSE) degree options in the department: master's with thesis, master's with report, and master's with no thesis/no report.

Coursework hours required for all three master's degree options are listed below:

THESIS OPTION (30 credit hours)

- 24 credit hours of coursework
- 6 credit hours of Thesis (ME 698A and ME 698B)

REPORT OPTION (33 credit hours)

- 30 credit hours of coursework
- 3 credit hours of Report (ME 398R)

NO THESIS NO REPORT OPTION (36 credit hours of coursework)

- Minimum 18 credit hours in major area
- Minimum 6 credit hours in supporting area

Up to 20% of coursework may be taken on the credit/no Credit basis, not including thesis hours. Click [HERE](#) for more on the Graduate School's requirements. You may take up to six (6) hours of *upper-division* undergraduate courses in your degree program. Courses taken for your BS degree and undergraduate courses taken while you are still classified as an undergrad (even if not used for your BS degree) may not be included in this allowance of six upper-division hours.

If you are considering obtaining a PhD, it may be possible to begin immediately in the PhD program depending on which technical area you pursue. The Graduate Adviser and your research advisor can provide details of this option.

*Master's students in ORIE have the same options but slightly different credit hour requirements. Please consult the following page for this outline: <http://www.me.utexas.edu/areas/orie/degrees.php>

The selection of a degree plan is your decision; however, the choice may be restricted by your acceptance of a GRA or by your selection of a research supervisor. If you accept a GRA, the MSE No Thesis/No Report option is not available without written agreement of the faculty member providing the GRA. The selection between the thesis or report option will be made in consultation with your research advisor. Some faculty members will only supervise thesis research.

3.2 Satisfactory Progress

Grading standards are different in graduate courses from undergraduate courses. Satisfactory progress in our graduate program requires a GPA over 3.0. Students whose cumulative GPA falls below 3.0 will be placed on academic probation by the Graduate School. If on academic probation, a student cannot hold an academic appointment (TA/GRA) and may lose a recruiting fellowship. If academic probation continues for two semesters, one would be dismissed from the Graduate School.

Grades for undergraduate courses are not computed in your overall GPA. To graduate, all graduate students must have a graduate grade point average of at least 3.00. Additionally, candidates for the master's degree must also have a grade point average of at least 3.00 in courses included on the Program of Work (see Section 5) and any undergraduate courses taken to satisfy the MSE degree requirement must have a letter grade equivalent above 3.0.

3.3 Planning your program

It is good to plan your program early in your academic career with the help of a faculty member in your technical area. Remember that most graduate courses are offered once a year, and some are offered even less often. Most Masters students enter in the fall semester. The schedule below shows a possible plan for completing the MSE thesis option that requires approximately one calendar year plus a long semester (admission in September and graduation in December of the following year).

Fall:	9 hours of coursework (Selection of research topic)
Spring:	9 hours of coursework
Summer:	3 hrs. Thesis A
Fall:	6 hours of coursework, 3 hrs. Thesis B

A typical schedule would be:

Fall:	9 hours of coursework (Select a research topic)
Spring:	9 hours of coursework
Summer:	If enrolled, 3 hrs. Research (to work as TA/GRA)
Fall:	3 hours of coursework, 3 hrs. Research, 3 hrs. Thesis A
Spring:	3 hours of coursework, 3 hrs. Research, 3 hrs. Thesis B

A typical MSE program is completed within 18 – 24 months. Beyond 24 months, your progress will be reviewed to determine ways to ensure your graduation.

3.4 Selecting a research topic

Selection of a research topic will normally be made near the end of the first semester. If you have a GRA you can write your thesis or report on the project that funds your GRA, and thus will effectively select your "*topic area*" based on your research project. Otherwise, time should be spent during the first semester searching for a topic. This is normally accomplished by discussing with faculty members in your technical area to get suggestions. A topic is chosen by common consent of the student and a particular faculty member who agrees to supervise the work.

Please inform the Graduate Program Office when you have selected a topic and supervisor (research advisor). In addition to the supervisor (first reader), a second reader is required to examine your thesis when you submit it for graduation. Be sure to ask for permission before listing someone as a second reader.

3.5 Writing the thesis or report

While requirements for writing a thesis or report will vary considerably with different faculty members, there are several suggestions that can be made:

- Writing a thesis or report that is acceptable to you and to two faculty members will undoubtedly take longer than you expect. Start early, plan ahead and work hard. One should expect a minimum of two months of full time effort for writing, faculty approval, and final editing. This assumes that all the analytical, computational, and/or experimental work is completed at the time the writing begins.
- Before starting the writing phase, it is imperative that a very detailed thesis outline be developed – a minimum of 4 or 5 pages with the outline detailed to the second level of subheading below the chapters, followed by brief description, phrases or subjects to emphasize important considerations.
- While it may be advisable to provide your adviser with one section (or chapter) for review to determine their level of expectation, the quality of the first draft provided to your adviser should be *complete* to the point

that *if* it were acceptable to him or her you could word process it in final form. This means among other things: title, table of contents, list of figures and tables, logically developed, fully referenced, correct grammar and punctuation, figures and tables sequentially numbered and titled, data or analysis and results fully assessed, etc. While the format will vary depending on the topic, the candidate and the thesis adviser, the draft should be *complete*.

3.6 Applying to graduate

At the beginning of the semester you intend to graduate, you must file to graduate by submitting the [Master's Graduation Application form](#) online. In addition, you must complete the *Program of Work for the Master's Degree (MS PoW)* and have it signed by your supervisor before delivery to the Graduate Program Administrator/Graduate Program Office for final approval. The online graduation application form consists of identifying your supervisor (first reader) and the second reader, and specifying the courses you have completed or will take to meet the degree requirements. It is to the student's advantage to develop a well-defined description of the scope of the proposed work (preferably written) that is agreed upon by the student and his/her thesis adviser.

BEFORE submitting the online Master's Graduation Application form, you must complete the MS Program of Work (POW) form which requires a signature from your faculty advisor or area coordinator. List only the courses that you want to count toward the MS degree; a minimum of 18 credit hours must be listed under Major Coursework and a minimum of 6 hours must be listed under Supporting Coursework. [The POW is available here](#) and will be automatically routed to the Graduate Program Administrator for processing after you and your faculty advisor or area coordinator sign.

Your online graduation application will NOT be approved until you submit the signed MS Program of Work form to the Graduate Program Administrator. After your approved MS POW has been received, the coursework information will be entered into your online degree profile. You will then be able to submit online graduation application. Once the application is approved by the graduate advisor, the electronic version of your MS POW will be submitted to the Graduate School and becomes a permanent part of your academic record.

You must be enrolled in classes (though not necessarily full-time status) during the semester you plan to graduate. If you are taking the thesis option, you must complete both *Thesis A* (698A) and *Thesis B* (698B) courses and be enrolled in *Thesis B* in the semester you plan to graduate. *Thesis A* must be taken before *Thesis B* and the two cannot be taken concurrently. **(Though these course numbers begin with the number 6, these are three-hour courses.)** *Thesis B* can be repeated if the thesis itself is not submitted to the Graduate School by the last class day of the semester you are planning to graduate. If writing a report, you must be enrolled in the *Report* course (398R) in the semester in which you plan to graduate. Again, this may be repeated as necessary.

3.7 Important graduation deadlines and final paperwork

The actual deadline dates for these items can be found [here](#). The deadline dates are **inflexible**.

- In the event that you do not graduate when you plan, a new application must be submitted if your semester of graduation changes.
- Students completing the thesis or report option must [upload the thesis or report](#) BEFORE submitting the required pages.
- Thesis/Report Option students must complete and submit the following Required Printed Pages as PDF files to the Graduate School at GradStudentSvc@austin.utexas.edu by the semester deadline:

- A [master's committee approval form](#) with signatures of your supervising committee. ALL committee members must sign the master's committee approval form - no proxy signatures allowed;
 - A copy of your [Copyright Tutorial](#) grade page - 100% score required;
 - A [Statement on Research with Human Participants form](#); and
 - Any requests to [Delay Publication](#).
- Please complete the Graduation Exit Survey after you have submitted your thesis or report, or have completed classes.

3.8 Continuing on to doctoral program

You must complete the appropriate internal form if you plan to continue from a Master's to a Ph.D. [The form can be found on our website](#) and will ask you to list three faculty members who will be asked to provide recommendations in support of your request to enter the Ph.D. program.

4. PHD DEGREE GUIDELINES

Students are strongly encouraged to develop a degree plan right after the first enrollment in the program. A Program of Work (PoW) is a form that you will need to complete before graduation. It is highly advisable that you review the PhD PoW as soon as possible in the process of developing your degree plans.

The essential milestones for completion of a Ph.D. in Mechanical Engineering are:

Required Milestone	Deadline
Find research advisor/supervisor	End of 1 st semester
Pass qualifying exams	End of 2 nd year
Advance to candidacy	End of 3 rd year
Hold first doctoral committee meeting	End of 4 th year
Defend dissertation	End of 5 th year

4.1 Admission to The Graduate Program

New Students: Admission is based on GPA, GRE scores, letters of reference, and a statement of purpose. While some admitted students have a master's degree, we also have a program to allow students to work on a Ph.D. degree directly from their B.S. degree.

Continuing UT Students: If you received your MS degree from the University of Texas, you need to complete a form to apply for admission to the Ph.D. program. This form lists three professors who will be asked to recommend your admission to the Ph.D. program.

4.2 Selection of Research Topic and Faculty Advisor

The student should, by the end of his or her first semester, if not earlier, select a faculty member as research advisor to consult on coursework and dissertation topic. Typically, the research adviser serves as the chair of the dissertation committee that will be responsible for overseeing the student's doctoral program (courses and dissertation). The chair or co-chair of a dissertation committee, i.e., your supervisor, must be an ME GSC member. See a [list of ME GSC members](#) on the graduate school website.

4.3 Coursework Requirement

Students admitted as MSE/PhD have an option to bypass the MSE degree and pursue the PhD degree directly. In this case, you will need 24 hours of graduate coursework in the area of specialization. If you have a ME MSE degree from outside UT (or an MS in a related field from either UT or another university), you will need at least 12 hours of graduate coursework beyond your MS coursework in the area of specialization. Students who have a MSE degree from UT ME with at least 8 letter-graded courses do not need to complete any additional coursework. All courses to satisfy the coursework requirement for the PhD must be letter-graded, graduate-level courses.

The dissertation committee may recommend courses to take as part of the Program of Work.

4.4 Annual Review for PhD Progress

An Annual Progress Review form must be submitted each fall to clear the registration advising hold. The form is available on our website.

4.5 Qualifying Examination

A student who has pursued a MS in the department can typically take the qualifying examination immediately upon completion of the MS, or possibly after having completed all or most of the MS course work. For a student entering with a MS from another school it is advisable to take at least one semester of graduate work (to get the perspective of our faculty on learning objectives) before taking the qualifying examination.

Each of the technical areas in the department administers a qualifying examination. The structure of the examination will vary depending on the technical area, and the area faculty member who serves as the coordinator should be consulted for details. A candidate may pass unconditionally, pass conditionally (with specific requirements such as additional courses with a minimum grade), pass a portion of the exam, or fail. Detailed examination procedure of each technical area can be found online in the [Department website](#).

4.6 Advance to Doctoral Candidacy

The Graduate Studies Committee (GSC) of the Mechanical Engineering program requires that a student pass the qualifying exam and be admitted to candidacy **before accumulating 50 credit hours towards their Ph.D. degree** (this includes research and seminar hours). This rule was adopted to promote a timely completion of the Ph.D. degree consistent with the University's "99" hour rule.

Advance to Ph.D. candidacy requires that a dissertation committee be formed. Per Graduate School rules, the dissertation committee includes a minimum of four members, including three members of the ME GSC and at least one member from outside ME GSC. This committee must meet to review the student's course program and dissertation proposal. The committee will typically make recommendations with respect to the scope and direction of the dissertation. Furthermore, the committee reviews graduate courses taken, or to be taken, as part of the student's Program of Work, and may recommend that additional courses be taken. Courses to be taken are at the discretion of the dissertation committee, but the following **minimum standard** has been established by the Mechanical Engineering department GSC:

Completed or planned graduate coursework in the area of specialization, taken for grade, and amounting to a minimum of 24 credit hours (for students without a MS degree) or a minimum of 12 credit hours (for students with an MS degree from outside the department). For students who received an MS degree from the Department of Mechanical Engineering at the University of Texas at Austin, no additional coursework is required"

Based on the recommendation of this dissertation committee, the student completes the necessary forms for application to doctoral candidacy. One form is the Ph.D. **Program of Work**, which involves a listing of the proposed course work (previously completed and yet to be completed); this form is signed by the student's dissertation supervisor confirming that the list of courses in the Program of Work has been approved by the dissertation committee. This form is then signed by the GSC chair and is held in the student's departmental file. This form is available electronically from the Graduate Program Administrator. Students must also complete the [Degree Candidacy Application](#) which specifies the proposed doctoral program chair and committee members, as well as an abstract of the proposed dissertation research. The Chair of the GSC, the Graduate Adviser, the student's committee, and the Dean of Graduate School approves this form. The student is then officially a "doctoral candidate".

Registration Requirements for Doctoral Candidates

Doctoral candidates must enroll continuously for the dissertation course (ME x99W or ORI x99W) for all subsequent long semesters until graduation. Doctoral candidates must complete at least 6 hours of the dissertation course in order to graduate. Continuous registration in the summer semesters is not required unless the student plans to graduate in that same summer semester. Effective spring 2019 the ME x99R and ORI x99W courses are no longer in use. All doctoral candidates enroll in ME x99W (ORI x99W for ORI doctoral candidates), regardless of time in candidacy.

Doctoral candidates are eligible to switch registration from research hours to dissertation hours mid-semester during the semester in which their application for candidacy is approved. If you wish to switch registration, contact the Graduate Program Administrator.

4.7 Research for Dissertation

It is recommended that the doctoral committee meet **at least** twice after the initial meeting: one or more times to review and possibly redirect the dissertation work, and a final meeting for the dissertation defense. In addition, it is expected that the research adviser meet regularly with the candidate during the development of the dissertation.

4.8 Writing of Dissertation

The candidate should recognize that it takes significant time to write the dissertation and should allow at least one long semester for the formal writing after all technical work is done. Also, the candidate should speak with their advisor about how they would like to review and edit the dissertation.

4.9 Dissertation Defense

At a time when the candidate and the research supervisor consider that the dissertation is complete and a draft has been completed, a defense is scheduled. Members of the committee should have **a copy four weeks in advance of the defense**. The defense and draft must meet the approval of the committee. If satisfactory, the committee will *Pass* the student and sign the *Report of the Dissertation Defense*. The candidate then has the dissertation prepared in final form, including any requirements specified by the committee, uploads the dissertation to the Texas Digital Library and submits remaining documentation to the graduate school. The finished document must be approved by the Graduate School.

As of Fall 2020, the Graduate School requires that all defenses be complete **2 weeks prior to the dissertation submission date**. The Graduate Faculty Assembly voted on this change to provide students with a more reasonable time frame to receive and incorporate suggestions from their dissertation committee members.

You must schedule the dissertation defense with the Graduate School at least **two weeks** prior to the defense date by completing the Request for Final Oral Examination form. All members of your committee must sign your request form indicating their intent to be present at your final oral. Your graduate adviser must also sign this form to indicate you have been approved to defend.

The Graduate School will email the supervisor, the candidate, and the Graduate Program Administrator a Report of Dissertation Committee form. After the defense, the form needs to be turned in to the Graduate Program Office for program check. Electronic signatures are acceptable on the form. The official recommendation of the committee and your program is communicated to the Graduate School on the Report of Dissertation Committee form. The scheduling information on the Report must be correct; if the time or location changes, the Graduate School must be informed.

4.10 Special Requirements and Restrictions

The following is a list of requirements and restrictions for doctoral students in the ME department.

- The "99 hour" rule: after accumulating 99 credit hours towards their Ph.D. degree, students will be charged non-resident tuition. The 99 credit hours include seminar, research, and dissertation hours.
- A doctoral student must pass the qualifying examination and be admitted to candidacy before accumulating 50 credit hours towards their Ph.D. degree.
- The research courses (180M/380M), internship course (ME 397M) and the seminar courses (ME 397K) may be used to fulfill your minimum enrollment requirement, but they do not count toward your graduate degree.
- You may add/drop ME courses during the departmental add/drop period in the ME Graduate Office. Courses other than ME must be add/dropped in the department offering those courses.
- Dissertation is offered only on a CR/NC basis.
- You cannot sign up for dissertation (ME x99W) unless you are admitted to candidacy by the Graduate School.
- Once advanced to candidacy, you must continuously register during all fall and spring semesters unless granted a "leave of absence" by the Graduate School.
- You must have a minimum of 6 credit hours of dissertation "W" before graduation.
- Refer to the course schedule for the last date to change grade status (CR/NC or letter grade).
- You must pass a qualifying examination to be eligible to apply for Doctoral Candidacy.
- All courses on your Ph.D. Program of Work must be taken on a letter grade basis.
- Since the process of applying for candidacy takes several weeks, apply for candidacy well before the semester in which you would like to register for dissertation credit.
- Apply to graduate in the semester you plan to graduate (during the first week in the semester). In the event you do not graduate, a new application must be filed the next semester and every semester after that until you graduate.
- Complete an exit survey after you have submitted your dissertation or defense.
- The coursework you list on Program of Work must be completed by the time you defend your dissertation. If the list of courses has been changed, you need to update your PoW and get it approved again.

5. RULES GOVERNING TEACHING ASSISTANTS AND GRADUATE RESEARCH ASSISTANTSHIPS

The following rules apply to both TA's and GRA's.

- To be appointed as a TA/GRA, you cannot be on academic probation (GPA > 3.0)
- In order to be appointed for a TA or GRA, you may not have:
 - more than two X's (incomplete), or
 - more than one X and one I (permanent incomplete), or
 - two permanent incompletes (two I's) .
- If you are appointed as a TA or GRA, you must be registered full-time.
- The different academic areas (Dynamic Systems and Control, Manufacturing and Design, Thermal and Fluid Systems, OR/IE, etc.) of the ME Department have TA positions in undergraduate courses.
- When you are appointed as a TA, you cannot withdraw to accept a GRA after classes begin.
- GRA's are assigned by faculty members holding research grants or contracts. If you are interested in a particular research program, you must contact the faculty member directly.
- You cannot be appointed as a TA and/or GRA for more than 14 long semesters.
- If you accept a GRA, the *Coursework* (no-thesis/no-report) option is not available without written agreement of the faculty member providing the GRA.
- Students (including international) are permitted to work up to 40 hrs/week (100%) in the summer semester if the opportunity is available.
- If you are a continuing student, we strongly recommend that you pre-register. If you do not pre-register or if your registration is canceled (due to non-payment), your appointment as a TA or GRA will be delayed.
- If you are a full-time student, you must enroll for at least nine credit hours in each long semester (Spring and Fall).
- In order to be appointed for a TA or GRA you must be in good standing (not on academic probation).
- If you are appointed as a TA or GRA, you must register, and remain registered, for 9 semester hours in the Fall and Spring semesters. Summer appointees need to register, and remain registered, for 3 semester hours.
- Teaching assistants are assigned by responsible faculty in the academic areas. If you are interested in being a TA, you must complete a TA application. The application is available at the end of each semester for the following semester. This must be done every semester, even if you have served previously.
- An international student must be certified as competent in the English language before he or she can be appointed as a TA. Non-exempt international students (depending on country of origin) must pass the ITA English Assessment, which is administered by the International Office.
- In general, there is low priority for appointing a student to a teaching assistantship after the student has had a TA appointment for 2 long semesters.

6. RESOURCES

6.1 Student Organizations

The UT Official Directory, issued annually, contains a list of all Registered Student Organizations, with names and phone numbers for more information. A comprehensive list can also be found [here](#). These student organizations encompass many different kinds of clubs, such as political associations, ethnic associations, religious groups, sports clubs, etc. Here are a few major organizations that are pertinent to ME graduate students:

- [ME Graduate Student Board \(MEGSB\)](#)

The Mechanical Engineering Graduate Student Board (MEGSB) is intended to act as a liaison between graduate students and faculty in the Walker Department of Mechanical Engineering. The organization seeks to aid in professional development of graduate students and to enhance their experience in the department.

- [Graduate Engineering Council \(GEC\)](#)

The GEC is an organization developed to promote social and academic interaction among graduate students in the College of Engineering. The council is composed of representatives from each graduate program in engineering. The GEC publishes a Graduate Engineering Guide, sponsors several seminars and social events each semester, and compiles a resume book.

- [Graduate Student Assembly \(GSA\)](#)

The Graduate Student Assembly is a university-wide organization aimed at representing the interests of all graduate students at The University of Texas. It provides representation within the formal university structure: Graduate Assembly, senior cabinet, and Student Senate. GSA has representatives on the Faculty Council, the Graduate Guide, and various committees such as the TA/AI Welfare, Rights, and Responsibilities Committee. Call 471-3166 for more information.

6.2 Health Insurance

Students may purchase student health insurance through an optional, affordable plan approved by the University of Texas System and designed specifically for UT Austin students. More information can be found here: <https://utsystem.myahpcare.com/>

Graduate students assigned to work in a student academic title for at least 20 hours a week for at least 4.5 months (135 calendar days) are eligible for the university's employee group insurance benefits. More information can be found here: <https://hr.utexas.edu/student/student-employee-insurance-benefits>

6.3 Counseling and Mental Health Resources

- **Behavior Concerns Advice Line (BCAL) 512-232-5050**

Are you worried about a student in your class, bothered that your roommate has been acting differently, or concerned about the behavior of a co-worker? Do you have concerns but are not sure what to do? If so, contact the Behavior Concerns Advice line at **512-232-5050** or [submit your concerns using the online form](#).

The Behavior Advice Line is a service that provides The University of Texas at Austin's faculty, students, and staff an opportunity to discuss their concerns about another individual's behavior. Trained staff members will assist the individual in exploring available options and strategies. They will also provide appropriate guidance and resource referrals to address the particular situation. Any concerns for the welfare of a fellow student can be directed to this number. Confidentiality will be maintained as much as possible, however the university may be required to release some information to appropriate parties. Your online request is not anonymous. If you wish to remain anonymous please call the BCAL line at 512-232-5050.

Cases that present an immediate threat to self, others, or property should be considered an emergency and should be directed to The University of Texas Police Department (UTPD) by calling 911.

- **Counseling and Mental Health Center (CMHC)**

The CMHC provides counseling, psychiatric consultations, and prevention services that facilitate student's academic and life goals while enhancing their personal growth and well-being. They have short-term individual counseling, group counseling, workshops, classes, and MindBody labs. You can find more information [here](#).

- **CMHC Crisis Line**

[CMHC Crisis Line](#) is a confidential service of CMHC that offers an opportunity for UT-Austin students to talk with trained counselors about urgent concerns. A counselor is available every day of the year, including holidays. You can call us when you want, at your convenience. Our telephone counselors will spend time addressing your immediate concerns. Our telephone counselors also have specific training in responding to crisis situations.

- **Counselors in Academic Residence Program (CARE)**

[CARE](#)'s primary mission is to provide access to mental health support for students who are struggling emotionally and/or academically. Our presence normalizes the counseling process and makes us readily available for services. We decrease barriers by assisting students in a location that is familiar and convenient for them. CARE counselors get to know the concerns that are unique to their college's students. They integrate in the college and provide support and consultation on mental health issues for advisors, faculty and dean's staff.

The CARE counselor for the Cockrell School of Engineering is Jeni Wade, LCSW. Her office hours are Wednesday, Thursday, and Friday, 1-2pm. Jeni is located in Engineering Student Services South, EER 2.848. Call 512-471-8396.

- **Student Emergency Services (SES)**

[SES](#) helps students and their families during difficult or emergency situations. Assistance includes outreach, advocacy, intervention, support, and referrals to relevant campus and community resources. **Please note, their office does not provide counseling services.**

6.4 Housing, Transportation, and Parking

The Graduate School provides resources that may help you find a housing solution. Check out the Graduate School website for this information. Also included in the website is information on transportation and parking.

[Capital Metro](#) (Austin City transportation system) offers bus, shuttle and rail service to the greater Austin metropolitan area. Many students prefer not to bring a car to campus, but instead use Capital Metro or take advantage of the university's central location by walking or bicycling. UT Austin offers a [shuttle service](#) to registered students to many parts of Austin, including the Pickle Research Center. Maps are available at the Texas Union and at the Information Desk in the Main Building. Students with valid UT IDs can ride both Capital Metro and UT Shuttles for free.

Parking is very limited at UT Austin. Students are eligible to purchase a "C" permit (student parking). Permits do not guarantee you a spot and it may be necessary to arrive very early to find parking. Registered graduate students who are employed by UT for at least twenty hours per week (graduate research assistants, teaching assistants, and some fellowship holders) may qualify for an "A" permit. The Graduate Program Administrator sends in a parking verification form to the parking office in late August. If you believe you qualify for "A" parking and the parking office does not have your name, contact the Graduate Program Administrator. For more information on eligibility, fees, location of the parking lots, or other information on parking, refer to Parking and Transportation Services [here](#) or at 471-7275. You may also complete an application to receive "A" parking online under [My Parking Profile](#).

6.5 Writing Center

The [University Writing Center](#) and the [Sanger Learning Center](#) offers a number of services for graduate students, including feedback on theses and dissertations.

6.6 Offices and Keys

Graduate student desks/space is available to students with academic appointment (i.e. TA/Al/GRA). Unfortunately, space is very tight and there is a waiting list for desks. Students must submit an application to request a desk. Please contact the Graduate Program Administrator for more information about the application process. Just because a desk looks unoccupied does not mean that you can claim it!

Students can use any desk in ETC 3.140. Contact the Graduate Program Administrator for the door code.

Key requests are obtained through supporting administrative staff. Keys must be returned by their due date to the UT [Lock and Key Services](#) center.

6.7 Copiers

Copiers are available in various places on campus, including libraries. You may get an access code or copy card from your research supervisor that you can use when making copies for official UT business only. You should obtain a separate card for yourself if you will use the copiers for personal use.

6.8 Libraries

Professional librarians are available to help students find the resources they need. Don't hesitate to contact them.

[Contact for Engineering Librarians](#)

[Library Guides for Graduate Students](#)

6.9 Special Events

The Mechanical Engineering Department offers special events such as parties, seminars, symposiums, etc. Watch the bulletin boards and your e-mail for announcements of such activities.

6.10 Additional Sources of Information

Pertinent university procedures and regulations are addressed in these university catalogs: *General Information* and *The Graduate Catalog*. Each is available from the Office of the Registrar online [here](#).

General Information, published annually in July, contains current and historical information about the university and regulations that apply to all students during the academic year printed on the title page. *General Information* is intended for use with each of the other issues of the catalog of the university.

The Graduate Catalog is published in July of odd-numbered years, contains degree requirements and official regulations of the Graduate School. It also contains descriptions for most graduate courses offered by all departments.

The [Course Schedule](#) is issued each semester (fall, spring and summer) and is viewable online. It contains procedures on how and when to register and lists which particular classes are available during the semester and when and where they meet. It also contains the final exam schedule and the calendar of the university.