Mechanical Engineering
Graduate Student
Handbook

February 2016

Department of Mechanical Engineering
University of Wisconsin-Madison
# Department of Mechanical Engineering

**A Guide for Mechanical Engineering Graduate Students**

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INTRODUCTION & WELCOME TO MECHANICAL ENGINEERING

The purpose of this guide is to provide you, as a graduate student in the Department of Mechanical Engineering, with information to facilitate your graduate studies program. The guide contains a number of items that are not discussed in other University of Wisconsin–Madison publications. Thus, you are urged to read this booklet carefully, both now and as you progress through your degree program. Graduate course descriptions can be found in the Graduate School Catalog. This publication is available from The Graduate School on-line at: http://www.grad.wisc.edu/catalog/index.html. The Office of the Registrar lists all UW-Madison course offerings each semester at: http://registrar.wisc.edu/schedule_of_classes.htm.

Please be aware that it is up to you and your advisor to put together a coherent sequence of courses that satisfies all of the department and The Graduate School requirements.

If you have any questions concerning the information contained in this guide, please stop by the Student Services Office (Rm. 2107 ME) or call (608) 263-3955 to speak with our staff. We thank you for selecting this university, and especially our department, as the location for obtaining your graduate education. We trust your experience with us will be a rewarding one. Please do not hesitate to contact me if I can be of assistance.

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FOR ASSISTANCE WITH PROBLEMS & EMERGENCIES

- CoE Counseling Service: David Lacocque, 333 East Campus Mall. To schedule an appointment call (608) 265-5600. This is also the After Hours Crisis number.
- University Counseling Service, 333 East Campus Mall, 7th floor, (608) 265-5600; 8:30 am–5:00 pm, Monday–Friday
- Dean of Students Office, 75 Bascom Hall, (608) 264-5700, 7:30 am–5:00 pm, Monday–Friday
- Acute Psychiatric Service, (608) 265-5600, 8:00 am–4:30 pm, Monday–Friday
  ext. 2 (during business hours)
  ext. 9 (after hours)
- Dane County Mental Health Center’s Emergency Lines, 24 hours daily, (608) 280-2600
- Madison Police and Medical Emergency: 911 (Non-Centrex and public telephones only)
  Non-Emergency number: (608) 266-4275
- University Police: 911
  Non-Emergency number: (608) 264-COPS (2677)
NEW GRADUATE STUDENT CHECKLIST: WHAT DO I DO NOW?
Adapted from http://grad.wisc.edu/newstudents/checklist/

VISIT YOUR DEPARTMENT OFFICE
As a graduate student your department is central to your campus life. When you visit, meet the graduate coordinator in the Student Services Office (Rm. 2107 ME) and your Student Services advisor. As graduate programs vary, so does the makeup of the departmental offices. Although the departmental office is there to assist you, it is your responsibility to be aware of graduate policies and deadlines.

ACTIVATE YOUR NETID
You will need your NetID and password to access the My-UW portal at my.wisc.edu. To activate your NetID click on the ACTIVATE NETID button from the My UW Madison login screen. Enter your 10 digit student campus ID number and birthdate. The NetID you create and password you enter are keys to your access to the My-UW portal, so make a record of it and keep it private. If you are unsure about your NetID and password, contact the DoIT Help Desk at (608) 264-HELP (4357).

IF YOU HAVEN’T ALREADY DONE SO, ENROLL FOR CLASSES!
Students enroll via the Web at my.wisc.edu. You will need your NetID and password to access the My-UW portal. (See Activate your NetID for more information). You can enroll at any time after your Enrollment Appointment Time until each session's class-add deadline. You can find your enrollment time in your Student Center at my.wisc.edu. To enroll after the add period for a course, you will need department and/or dean's permission. Also, you will not be able to obtain your Student ID card until you enroll.

PAY YOUR TUITION/FEES
Check your student account invoice for amount due and payment deadlines. Pay your fees and tuition, if applicable, at the Bursar's Office (http://www.bussvc.wisc.edu/bursar/bursar.html). The offices are located at 333 East Campus Mall #10501. If you do not receive an invoice, contact the Bursar's Office at (608) 262-3611. Failure to receive an invoice will not be accepted as a reason for failure to comply with payment deadlines.

GET YOUR UW PHOTO ID CARD
Get your UW ID card - Wiscard - photo taken at the Wiscard Office (http://www.wiscard.wisc.edu/contact.html) in the Union South, 1308 W Dayton Street, Rm. 149 M-F 8:30 am – 5:00 pm. You must be enrolled and have valid identification (such as a valid driver's license, passport, or state ID) to get your photo ID. 
Prerequisite: You must be enrolled.

LOCATE YOUR WISCMAIL ACCOUNT
Once you have activated your NetID, log on to my.wisc.edu. WiscMail is UW-Madison's centrally supported email service. It provides email to all faculty, staff and students via the My-UW portal on the Web or through a local email client. WiscMail has valuable features, including IMAP folders, secure login, Web access, virus scanning, spam filtering and much more. The Registrar, Bursar, deans and the Graduate School only use WiscMail to correspond with students.
Prerequisite: You must be enrolled.

MODIFY YOUR NET ID ACCOUNT
To begin, log into the NetID Account Modification tool at https://www.mynetid.wisc.edu/modify. The account modification tool allows you to activate missing services, reset your password, change your account recovery questions, and change your preference to forward your WiscMail to a work or personal email address used frequently.
Prerequisite: You must be enrolled.
ACTIVATE YOUR CAE ACCOUNT

CAE accounts are automatically established for all engineering students from their current registration information, and they allow for a variety of services at no charge to the student. Your CAE account will give you access to the many computing resources in the College of Engineering including the CAE Windows workstations, the CAE Linux workstations, and access to tethered software. Your CAE account is available as long as you are enrolled in an engineering course, until your graduation. You can activate your account at this address: http://www.cae.wisc.edu by clicking the “Activate your CAE account” link or by emailing the CAE Helpdesk at: helpdesk@cae.wisc.edu.

Prerequisite: You must have had your University picture ID for about a week.

VERIFY YOUR MAILING ADDRESS & PHONE NUMBER

To update your mailing address and phone number, go to my.wisc.edu. To update your information, you must know your NetID and password. If you are unsure about your NetID and password, contact the DoIT Help Desk at (608) 264-HELP (4357). To update your address before you enroll, contact the Graduate Admissions Office at (608) 262-2433.

PICK UP YOUR FREE MADISON METRO BUS PASS

As a UW student, you can pick up a bus pass at no charge from the Student Activity Center at 333 East Campus Mall at the beginning of the fall and spring semesters. Visit the ASM website (http://www.asm.wisc.edu/asm-bus-pass.html) for more information on their services. Be sure to have your UW ID with you.

Prerequisite: You must be enrolled.

AFFECTING SOME NEW STUDENTS:

If you are an international student here on a student scholar or visa:

You must check in with International Student Services (http://iss.wisc.edu/) immediately upon arrival. ISS is located in the Red Gym at 716 Langdon Street Rm. 217.

If you are an international student:

Only F-1 and J-1 students employed on campus are eligible for a Social Security number. If you are eligible, find out how to sign up for a Social Security number and get answers to your tax questions by visiting the Office of Human Resources Payroll and Benefits Services website (http://www.bussvc.wisc.edu/ecbs/emp-taxes-menu.html).

If you are required to take the ESLAT (English as a Second Language Assessment Test):

There are multiple opportunities to take this test. For schedule and location information, visit the UW-Madison Program in English as a Second Language, phone: (608) 263-3780, website: http://www.english.wisc.edu/esl/intensive-placement.htm. Students must bring their student identification number and a photo ID (such as passport or UW Student identification card). To register for a test, contact Sherrill Wagner, sjwagner@wisc.edu and provide your full name, campus ID, exam date, and wisc email address.

If you have been notified that you will receive financial aid (this is not referring to assistantship awards):

Your financial aid award will automatically be applied to your student account to pay tuition and fees. The Bursar's Office will send any remaining amount in the form of a check to your mailing address. Make sure your mailing address is up-to-date! You can also have an ACH transaction deposited directly to your bank account. Contact the Bursar's Office at (608) 262-3611 with questions. More information can be found on their website: http://www.bussvc.wisc.edu/bursar/bursar.html.

If you received a financial award that included remission of tuition (unless the award was a fellowship):

You are still responsible to pay segregated fees by the tuition due date.
If you are a new graduate assistant:
Get information on your benefits package at the Office of Human Resources website (http://www.bussvc.wisc.edu/ecbs/emp-info.html). Prior to your start date, you must check in with the ME Payroll & Benefits Coordinator (Rm. 3107G ME) and submit the necessary documents available online at http://www.bussvc.wisc.edu/ecbs/benefits/newemp_welcomeesforms.html.

If you did not previously submit final transcripts:
Bring requested final transcript(s) to the Graduate School located in Bascom Hall at 500 Lincoln Drive Rm. 228. If you do not submit final transcripts by the third week of classes, you will not be able to register for future semesters until you do so. This is not required for students who completed their undergraduate degree at UW-Madison.

GENERAL INFORMATION FOR GRADUATE STUDENTS

SELECTING AN ADVISOR
Per Graduate School policy, each graduate student must have a faculty advisor who assists the student in planning a course sequence that meets degree requirements, and who will discuss career objectives with the student. New students who wish to have assistance in selecting an advisor should consult the department website (www.engr.wisc.edu/me/faculty). They should also visit with the professors in their interest area to discuss whether or not the faculty member would be willing to serve as their advisor. The advisor serves as the major professor in terms of directing the research and chairing the thesis committee or directing the independent study. Once you have secured an advisor, please contact the ME Graduate Coordinator.

IMPORTANT DATES
Each semester, you can find a copy of the Academic Calendar, as well as important deadlines (Deadlines at a Glance) through the wisc.edu homepage. The Student Services Office will e-mail students at the beginning of each semester to remind students of the deadlines. However, as a student, it is YOUR responsibility to be aware of and meet all deadlines.

The Academic Calendar can be found at: http://www.secfac.wisc.edu/acadcal/
You can find each semester’s Deadlines at a Glance in the left column of the Office of the Registrar’s website: http://www.registrar.wisc.edu/

FORMS
General university forms are available online at: https://grad.wisc.edu/acadpolicy/ and http://www.registrar.wisc.edu/student_forms.htm. TA/Grader application forms and all other MS and PhD forms are online at: ME Forms

UNIVERSITY ACTIVITIES
As a student, you are entitled to student rates at athletic events, musical performances and plays sponsored by the university. Visit the online events calendar at http://www.today.wisc.edu.

RESOURCES
CAMPUS INFORMATION CENTER
The Campus and Visitor Relations Center is located at Union South Suite 329, 1308 W. Dayton St. Telephone number: (608) 263-2400. This center maintains lists of available off-campus housing and provides general information on academic and non-academic topics that may be of interest to students.
WENDT COMMONS
The Engineering Learning Center, Engineering Media Services and Wendt Library are consolidating under the new name "Wendt Commons." Location: 215 N. Randall Avenue. Website: http://wendt.engr.wisc.edu. 

TEACHING AND LEARNING SERVICES
The new Teaching and Learning Services (TLS) at Wendt Commons utilizes a range of educational professionals to provide a single place to connect faculty, instructors, and tutors with services and resources to assist in creating, delivering, and evaluating engineering courses. The TLS group includes information professionals from the library (liaison librarians), learning technologists, IT professionals, and the college assessment director. Website: http://wendt.engr.wisc.edu/teaching_and_learning_services.html Email: tls@engr.wisc.edu Telephone: (608) 265-1178. 

ENGINEERING MEDIA SERVICES
Engineering Media Services maintains the media equipment in many of the College of Engineering conference rooms, classrooms, and labs. We also offer a variety of services and hands-on help to the engineering community. Website: http://www.engr.wisc.edu/services/ems Email: ems@engr.wisc.edu Telephone: (608) 263-3163. Location: 1712 Engineering Hall. 

LIBRARY AND INFORMATION SERVICES
Wendt Commons Library connects students and researchers to high quality information and user-centered services anytime, anywhere. Resources include books (both in print and electronic), journals, and government documents. Services include article and book delivery, citation management, and new publication alerts. Website: http://wendt.library.wisc.edu Email: askwendt@engr.wisc.edu Telephone: (608) 262-3493. The librarian for Mechanical Engineering graduate students is Jody Hoesly (jhoesly@engr.wisc.edu) (608) 262-9455). The Research Center Liaison is Ryan Schryver (rlschryver@wisc.edu) (608) 262-9260. 

WRITING CENTER
The UW Writing Center (http://writing.wisc.edu/) provides free face-to-face and online consultations which focus on a number of different writing scenarios (i.e., drafts of course papers, resumes, reports, application essays, cover letters, theses, etc.). Writing Center instructors will not edit or proofread papers. Instead, their goal is to teach students to edit and proofread in order to become better, more confident writers. Telephone: (608) 263-1992. Location: 6171 Helen C. White Hall. 

ENGINEERING CAREER SERVICES
Engineering Career Services (https://ecs.engr.wisc.edu/public/index.php) provides lifetime tools for successful career development in a rapidly changing world. ECS helps students in preparing for internship/co-op as well as job searches (resume & cover letter writing, listing of potential employers, etc.), practicing interviewing skills (mock interviews, sample interview questions), and other important career information such as negotiating job offers and salaries. Students can become lifetime members of ECS by registering and paying a one-time $20 fee. 

The staff at ECS teaches a course called Career Orientation (listed as PRO OR 200 under Professional Orientation). The course generally meets one time per week and is worth one credit. Students gain exposure to the world of work and valuable knowledge and skills related to the job search. 

Contact Person: John Archambault 
Telephone: (608) 262-3471 
Location: 1410 Engineering Drive, 1st floor 

MCBURNERY DISABILITY RESOURCE CENTER
Students who have a documented disability, or suspect that they may have an undiagnosed disability, are encouraged to contact the McBurney Disability Resource Center (http://www.mcburney.wisc.edu) to inquire about obtaining academic accommodations. The McBurney Center provides academic accommodations such as: adaptive/assistive technology access, assistive listening devices, document conversion, elevator keys, ASL interpreting, note taking support, testing accommodations, and reduced credit load recommendations to name a few. Students must provide documentation and be registered with the McBurney Center to receive at Verified Individualized Services & Accommodations (VISA) before they can obtain accommodations. Telephone: (608) 263-2741 TTY: (608) 263-6393 Location: 702 W. Johnson St. Suite 2104.
ENROLLMENT

MINIMUM CREDIT REQUIREMENTS

During the fall and spring semesters, a full-time student carries 8-15 credits, and during the 8-week summer session, 4-8 credits. Continuing students who are not funded in the summer are not required to register for courses in order to maintain their status as a graduate student. If you are funded in the summer a minimum of 2 credits is required. Dissertators are always required to register for 3 credits. Further information regarding enrollment requirements may be found online at https://grad.wisc.edu/acadpolicy/

PLEASE NOTE that pass/fail courses, audited courses, or courses numbered below 300 do not count towards minimum or maximum requirements. They are in essence counted as zero credits.

MINIMUM FULL-TIME ENROLLMENT REQUIREMENTS

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<th>Min Fall/Spring Credit Load</th>
<th>Min Summer Credit Load</th>
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<tr>
<td>General Rule</td>
<td>8 cr</td>
<td>4 cr</td>
</tr>
<tr>
<td>Dissertators</td>
<td>3 cr</td>
<td>3 cr</td>
</tr>
<tr>
<td>Non-dissertator TAs and RAs with a 33%+ Appointment</td>
<td>8 cr</td>
<td>2 cr</td>
</tr>
<tr>
<td>International Students</td>
<td>8 cr</td>
<td>not required unless being paid (assistantship)</td>
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RESEARCH & INDEPENDENT STUDY COURSES

Independent study credits (699 or 999) are graded with a letter grade (A-F) and are weighted with the student’s GPA. Research credits (790, 890, 990) can only be graded as P (Progress), S (Satisfactory), or U (Unsatisfactory). Research credits are not weighted into a student’s GPA.

As a general guideline, an MS student can register for Independent Study 699 or Master’s Research 790; a PhD pre-dissertator can register for Independent Study 699 or Pre-dissertator Research 890; a PhD dissertator should register for Dissertator Research 990.

Student need to discuss with their advisor to decide which course to register for among 699, 790, 890, 990, or 999.

RESEARCH SECTION ENROLLMENT

Some ME courses with conference sections (ME research courses and advanced independent study courses) need departmental authorization prior to registration; this can be obtained by emailing your request to sjwagner@wisc.edu with your full name, campus ID, term, instructor name, class number (ME 699, 790, 890, 990, 999), and section number.

WAIT LIST

If a class is closed and the department is maintaining a waiting list, a yellow triangle will display on that section. If you would like to be placed on the wait list you’ll need to check the box titled ‘Please Wait List Me’ on the Enrollment Preferences page and continue through the enrollment to finalize your request. The Registrar’s Office provides a demo at http://www.registrar.wisc.edu/isis_helpdocs/enrollment_demos/V90WaitList/V90WaitList.htm. You will be allowed to place yourself on a wait list for a maximum of three class sections. You will receive permission to enroll from the waitlist through an email notification. You have 48 hours to enroll after receiving notification, so check your email daily.

Prerequisite: You must be enrolled in at least one course.
CREDIT OVERLOAD
In order to enroll for more than the maximum credit load in any given semester, students must submit a Credit Overload Request form: http://grad.wisc.edu/acadpolicy/. This form must be signed by your faculty advisor and turned in to the Graduate School at 217 Bascom Hall. The Graduate School will look closely at the rationale for the request, and if the request is approved, the student will be notified that they can add the course. This form MUST be submitted at least one week before the add deadline.

SATISFACTORY PROGRESS
ALL graduate students are expected to make satisfactory progress toward their degree each semester. Satisfactory progress means taking a sufficient number of courses each semester, maintaining the required grade point average, moving ahead on the degree requirements, and making good progress on your thesis. Your advisor, the Graduate Committee and the Graduate School are responsible for determining satisfactory progress. Unsatisfactory progress may cause you to lose a TA, RA, or Fellowship appointment, and possibly your status as a graduate student.

PROBATION
If a student was admitted on probation and she/he satisfies the conditions outlined at the time of admission, probationary status will be removed automatically. Once their studies have begun, students are expected to make satisfactory progress toward their degree.

Students must be in good academic standing with the Graduate School, their program, and their advisor. The Graduate School regularly reviews the record of any student who received grades of BC, C, D, F, or I in graduate-level courses (300 or above), or grades of U in research and thesis. This review could result in academic probation with a hold on future enrollment, and the student may be suspended from graduate studies.

The Graduate School may also put students on probation for incompletes not cleared within one term. Dissertators will not be placed on probation for incomplete grades in research courses. All incomplete grades must be resolved before a degree is granted.

Please note that any student who is on probation will not be able to enroll for the following semester until their final grades are submitted and the Graduate School has verified they are making satisfactory progress. For any questions relating to probation, please contact Michelle Holland, Academic Services Coordinator, at (608) 265-0519 or holland@grad.wisc.edu.

SERVICES

COMPUTER USAGE
All registered engineering students may use the Computer-Aided Engineering (CAE) computer facilities located in the CAE Center, 1410 Engineering Drive, across the street from Engineering Hall. CAE users can access various computers at this location and at a number of CAE “target laboratories” across the engineering campus. Terminals, documentation and consulting services are available during the hours posted at room doors. The CAE Center is located in Rm. 172, 1410 Engineering Drive, telephone: (608) 262-5349.

PHOTOCOPYING
Photocopying on the department copy machines is NOT permitted for personal purposes, including for courses being taken by the student. If photocopying is required for your research project, see your major professor for an access code number. Teaching assistants will be given an access code number for the copier by the department administrator.

TELEPHONES
Student access to university telephone services is limited to internal university and local calls. University-related (research, teaching, extension) long distance calls may be made on the telephone of your major professor with his/her permission. When making an internal university call, it is only necessary to dial the last five digits of the phone number. When making a local call, first dial “9.”
MAILBOXES
You are assigned a shared mailbox for department notices and messages, campus mail and U.S. mail. The mailboxes are located in Rm. 1137 ME, on the first floor and are listed in alphabetical order. There is one letter for each letter of the alphabet and mail is sorted by last name.

Because of increasing demands on space and staff time, you are to have all personal mail, periodicals and newspapers delivered elsewhere. The staff will NOT distribute your personal mail. The correct address for your mailbox is your name plus:

[Name]
Graduate Student
Department of Mechanical Engineering
University of Wisconsin–Madison
1513 University Avenue
Madison, WI 53706-1572

PARKING PERMIT
Graduate students may purchase university parking permits for their automobiles for Area Lot 60 or for Lot 83. There is frequent campus bus service between both lots and the engineering campus. Students with no employment should apply directly to Transportation Services. In view of the restricted parking options on campus and the fact that all students are entitled to a free bus pass, students are encouraged to consider parking off campus near a bus stop and riding the bus into campus.

Teaching Assistants or Research Assistants may also apply for a permit to Lot 17. Email your request to David Downing, djdowning@wisc.edu, along with your student ID number.

HEALTH INSURANCE
Health care is available at the University Health Service (UHS) for all UW-Madison students. (See www.uhs.wisc.edu for details on the coverage offered.) Hospitalization and emergency room services are not included in UHS benefits. Health insurance covering hospitalization and emergency services is strongly recommended. Information concerning group health insurance, which is available to those holding at least a 33.3% appointment as a graduate RA, grad Fellow or TA, may be obtained from the ME Payroll & Benefits Coordinator, Rm. 3107e ME. Unsupported graduate students are not eligible for insurance offered to RAs and TAs. Unsupported students may contact the Wisconsin Student Association for health insurance information.

DESK ASSIGNMENT, KEYS, & BUILDING PERMITS
As a research assistant (RA) or teaching assistant (TA), requests for a desk are made to your advisor or supervising professor.

Keys for offices or laboratories in the ME Building can be obtained by submitting an online key request form available on the ME Department Forms. Once the request is approved by your advisor, you will be contacted by the department to make a refundable deposit ($25.00/key), collected by the Bursar’s office at 333 East Campus Mall, room 1050. Once the deposit is collected, you can pick your key up at the department office.

Campus ID cards serve as the key for the outside doors of the ME building, Engineering Centers Building, and Engineering Hall, but must be activated for those purposes. Your activation request should be indicated on the key request form as well. Students located in the Engineering Research Building (ERB) or Engineering Hall (EH) obtain key and building permit forms through their advisor.
FINANCIAL SUPPORT

Graduate students earn a monthly stipend when they hold a research assistant (RA) or teaching assistant (TA) appointment. In addition, there are various fellowships for which graduate students may apply.

RESEARCH ASSISTANTSHIPS

RA appointments are made by the department chair in consultation with individual professors according to their needs and the availability of funding for their research projects. The level of funding varies among the faculty and new projects may start at any time of the year. Thus, prospective students should contact the professors who have research support related to their interests.

RESEARCH ASSISTANT STIPEND

Prior to your start date, you must check in with the ME Payroll & Benefits Coordinator (Rm. 3107G ME) and submit the necessary documents available online at http://www.bussvc.wisc.edu/ecbs/benefits/newemp_welcomeesforms.html. Your stipend will be paid on or before the first day of the month following your appointment begin date, and each month thereafter. Your stipend check will be sent directly to your bank. Research assistants do not accrue paid vacation or sick leave. Arrangements for leave are made through your major professor. Students who have an RA in the summer must carry a minimum 2-credit load.

TEACHING ASSISTANTSHIPS

Teaching assistant appointments are made by the department chair. To apply for a TA position, submit an online application on the Mechanical Engineering graduate student webpage: ME Department Forms. Please be certain to describe any prior teaching experience and classes you would be a good candidate to teach.

Teaching Assistant positions can be awarded to graduate students after their first year. UW System policy requires non-native English speakers to demonstrate proficiency in spoken English before they are assigned classroom duties as TAs. For information on spoken English requirements see: https://kb.wisc.edu/page.php?id=25268. The relationship between teaching assistants and the university is defined by the TAA Union contract.

The department has adopted the College’s policy on the continuous improvement of teaching assistants. Beginning TAs are required to attend New Educator’s Orientation (NEO) training organized by the College of Engineering held during the week before the first semester they teach. Department TA orientation is held each semester, and is required of all teaching assistants regardless of experience level.

FELLOWSHIPS

Fellowships are awarded to graduate students by the university and/or department from funds controlled by The Graduate School, college and department. Most are equivalent to an RA, but some are less and may be used to supplement an RA stipend. Some, but not all, fellowships are limited to U.S. students. Departmental fellowships are typically awarded in the spring semester for the subsequent academic year. Graduate students should consult with their advisor about fellowship opportunities. Graduate fellowships are also awarded by organizations outside the university. Check with your advisor and online (http://grad.wisc.edu/studentfunding/currentstudents).

REMISSION OF TUITION

Students must have a research assistant appointment, teaching assistant appointment, program assistant appointment, or a combination thereof, equaling at least 33.3% for the length of the fall or spring term to be eligible for full tuition remission for that term. Please note, students who receive tuition remission are still required to pay segregated fees by the tuition due date. If the student has had a qualifying appointment in the spring semester it automatically carries over for the summer session but the student must be enrolled for 2 credits.
GRIEVANCE PROCEDURES & REPORTING MISCONDUCT AND CRIME

GRIEVANCE PROCEDURES
If a student feels unfairly treated or aggrieved by faculty, staff, or another student, the University offers several avenues to resolve the grievance. Students’ concerns about unfair treatment are best handled directly with the person responsible for the objectionable action. If the student is uncomfortable making direct contact with the individual(s) involved, they should contact the advisor or the person in charge of the unit where the action occurred (program or department chair, section chair, lab manager, etc.). Many departments and schools/colleges have established specific procedures for handling such situations; check their web pages and published handbooks for information. If such procedures exist at the local level, these should be investigated first. For more information see the Graduate School Academic Policies & Procedures: Grievances & Appeals: https://grad.wisc.edu/acadpolicy/#grievancesandappeals.

ME PROCEDURES FOR PROPER ACCOUNTING OF STUDENT GRIEVANCES
1. The student is encouraged to speak first with the person toward whom the grievance is directed to see if a situation can be resolved at this level.
2. Should a satisfactory resolution not be achieved, the student should contact the ME Graduate Committee Chair or Department Chair to discuss the grievance. The Graduate Committee Chair or Department Chair will facilitate problem resolution through informal channels and facilitate any complaints or issues of students. The first attempt is to help students informally address the grievance prior to any formal complaint. Students are also encouraged to talk with their faculty advisors regarding concerns or difficulties if necessary. University resources for sexual harassment, discrimination, disability accommodations, and other related concerns can be found on the UW Office of Equity and Diversity website: http://www.oed.wisc.edu/index.html. Other campus resources include:
   - The Graduate School - grad.wisc.edu
   - McBurney Disability Resource Center - mcburney.wisc.edu
   - Employee Assistance Office - eao.wisc.edu
   - Ombuds Office - ombuds.wisc.edu
   - University Health Services – uhs.wisc.edu
   - UW Office of Equity and Diversity - http://www.oed.wisc.edu/index.html
3. If the issue is not resolved to the student’s satisfaction the student can submit the grievance to the Graduate Committee Chair in writing, within 60 calendar days of the alleged unfair treatment.
4. On receipt of a written complaint, a faculty committee will be convened by the Graduate Committee Chair to manage the grievance. The faculty committee will obtain a written response from the person toward whom the complaint is directed. This response will be shared with the person filing the grievance.
5. The faculty committee will determine a decision regarding the grievance. The Graduate Committee Chair will report on the action taken by the committee in writing to both the student and the party toward whom the complaint was directed within 15 working days from the date the complaint was received.
6. At this point, if either party (the student or the person toward whom the grievance is directed) is unsatisfied with the decision of the faculty committee, the party may file a written appeal. Either party has 10 working days to file a written appeal to the School/College.
7. Documentation of the grievance will be stored for at least 7 years. Significant grievances that set a precedent will be stored indefinitely.

The Graduate School has procedures for students wishing to appeal a grievance decision made at the school/college level. These policies are described in the Graduate School’s Academic Policies and Procedures: https://grad.wisc.edu/acadpolicy/#grievancesandappeals.
REPORTING MISCONDUCT AND CRIME
The campus has established policies governing student conduct, academic dishonesty, discrimination, and harassment/abuse as well as specific reporting requirements in certain cases. If you have a grievance regarding unfair treatment towards yourself, please reference the procedures and resources identified above. If you learn about, observe, or witness misconduct or other wrongdoing you may be required to report that misconduct or abuse. Depending on the situation, it may be appropriate to consult with your advisor, Graduate Program Coordinator, or other campus resources (such as the UW Office of Equity and Diversity, Graduate School, McBurney Disability Resource Center, Employee Assistance Office, Ombuds Office, and University Health Services).

RESEARCH MISCONDUCT REPORTING
The University of Wisconsin-Madison strives to foster the highest scholarly and ethical standards among its students, faculty, and staff. Graduate students and research associates are among the most vulnerable groups when reporting misconduct because their source of financial support and the progress in their careers may be at risk by raising questions of wrongdoing. They are also often the closest witnesses to wrongdoing when it occurs and therefore must be appropriately protected from the consequences of reporting wrongdoing and be informed of their rights. Please find full details at http://www.grad.wisc.edu/research/policyrp/ReportingMisconduct.html

ACADEMIC MISCONDUCT REPORTING
If you know a classmate is cheating on an exam or other academic exercise, notify your professor, teaching assistant or proctor of the exam. As a part of the university community, you are expected to uphold the standards of the university. Also, consider how your classmate's dishonesty may affect the overall grading curve and integrity of the program.

SEXUAL ASSAULT REPORTING
Faculty, staff, teaching assistants, and others who work directly with students at UW-Madison are required by law to report first-hand knowledge or disclosures of sexual assault to university officials, specifically the Office for Equity & Diversity or the Division of Student Life. This effort is not the same as filing a criminal report. Disclosing the victim’s name is not required as part of this report. Please find full details at http://www.oed.wisc.edu/sexualharassment/assault.html and http://www.students.wisc.edu/doso/studassist.html#sexassault

CHILD ABUSE REPORTING
As a UW-Madison employee (under Wisconsin Executive Order #54), you are required to immediately report child abuse or neglect to Child Protective Services (CPS) or law enforcement if, in the course of employment, the employee observes an incident or threat of child abuse or neglect, or learns of an incident or threat of child abuse or neglect, and the employee has reasonable cause to believe that child abuse or neglect has occurred or will occur. Volunteers working for UW-Madison sponsored programs or activities are also expected to report suspected abuse or neglect. Please find full details at http://www.oed.wisc.edu/childabuse/

REPORTING AND RESPONSE TO INCIDENTS OF BIAS/HATE
The University of Wisconsin-Madison values a diverse community where all members are able to participate fully in the Wisconsin Experience. Incidents of Bias/Hate affecting a person or group create a hostile climate and negatively impact the quality of the Wisconsin Experience for community members. UW-Madison takes such incidents seriously and will investigate and respond to reported or observed incidents of bias/hate. Please find full details at http://students.wisc.edu/doso/biasreporting.html and http://www.students.wisc.edu/rights/what-if-i-witness-or-experience-a-bias-related-incident/
MASTER OF SCIENCE – MS (MECHANICAL ENGINEERING)

COURSE AND GRADE REQUIREMENTS

For Students Enrolled Before Fall 2014 Completing Their Degree before the Fall of 2016

THESIS OPTION:

1. Total of 24 credits, at least 18 formal course credits (at least 9 formal course credits in ME taken at UW-Madison), 5 thesis credits (ME790), and an oral examination on the thesis. Master’s Thesis Guidelines can be found at http://www.grad.wisc.edu/education/completedegree/mguide.html.

2. A GPA of at least 3.0 based on all formal course credits attempted applicable to the degree credit requirement, and a GPA of at least 3.0 in ME formal courses. Credits with a grade of “D” or “F” cannot be used to satisfy requirements.

3. Acceptable courses are 400-level and above as listed in My Course Guide (http://mycourseguide.wisc.edu/).

4. The MS program must include at least one formal course numbered 700 and above (excluding ME964 courses unless specifically approved), these are advanced courses referred to as 700-level courses, taken as a grad student at UW-Madison. A limited selection of courses, with course numbers less than 700 in other departments, have been approved to satisfy this 700-level requirement (a list of approved courses including approved ME964 courses is available at ME Graduate Website).

5. Transfer students may transfer a maximum of 8 formal course credits with advisor approval. Transferred courses must be ones for which graduate credit was awarded at the outside institution.

6. Thesis credit will be permitted only from the Department of Mechanical Engineering, except in the case of an approved co-advisor; credit then can be obtained through the co-advisor’s department.

7. Students are required to take ME 903-Graduate Seminar the first two semesters in residence at UW-Madison. ME 903 credits are not included in the required credit count. All students off-campus, part-time, or outreach will be exempt from taking ME 903 until they are on campus. Exemptions for other circumstances are considered on a case-by-case request.

8. Students must be enrolled for the semester in which they will graduate.

COURSE OPTION:

1. Total of 30 credits, at least 24 formal course credits (at least 15 formal course credits in ME taken at UW-Madison). At least 3 credits of independent study (ME699) with an ME faculty advisor are required.

2. A GPA of at least 3.0 based on all formal course credits attempted applicable to the degree credit requirement, and a GPA of at least 3.0 in ME formal courses. Credits with a grade of “D” or “F” cannot be used to satisfy requirements.

3. Acceptable courses are 400-level and above as listed in My Course Guide (http://mycourseguide.wisc.edu/).

4. The MS program must include at least one formal course numbered 700 and above (excluding ME964 courses unless specifically approved), these are advanced courses referred to as 700-level courses, taken as a grad student at UW-Madison. A limited selection of courses, with course numbers less than 700 in other departments, have been approved to satisfy this 700-level requirement (a list of approved courses including approved ME964 courses is available at https://wwwdev.engr.wisc.edu/department/mechanical-engineering/academics/masters-and-phd-in-mechanical-engineering/).

5. Transfer students may transfer a maximum of 14 formal course credits with advisor approval. Transferred courses must be ones for which graduate credit was awarded at the outside institution.

6. Students are required to take ME 903-Graduate Seminar the first two semesters in residence at UW-Madison. ME 903 credits are not included in the required credit count. All students off-campus, part-time, or outreach will be exempt from taking ME 903 until they are on campus. Exemptions for other circumstances are considered on a case-by-case request.

7. Students must be enrolled for the semester in which they will graduate.
For Students Enrolled Fall 2014 or Later

THESIS OPTION:

1. Total of 30 credits, at least 18 formal course credits (at least 9 formal course credits in ME taken at UW-Madison), at least 9 thesis credits (ME790), and an oral examination on the thesis. Master’s Thesis Guidelines can be found at http://www.grad.wisc.edu/education/completedegree/mguide.html.

2. A GPA of at least 3.0 based on all formal course credits attempted applicable to the degree credit requirement, and a GPA of at least 3.0 in ME formal courses. Credits with a grade of “D” or “F” cannot be used to satisfy requirements. Acceptable courses are those numbered 400 and above. Certain 300-level courses outside of Mechanical Engineering are also accepted (a list of these courses is maintained at https://www.engr.wisc.edu/department/mechanical-engineering/academics/masters-and-phd-in-mechanical-engineering/).

3. The MS program must include at least one formal course numbered 700 and above (excluding ME964 courses unless specifically approved), these are advanced courses referred to as 700-level courses, taken as a grad student at UW-Madison. A limited selection of courses, with course numbers less than 700 in other departments, have been approved to satisfy this 700-level requirement (a list of approved courses including approved ME964 courses is available at Me Graduate Website).

4. Minimum Graduate Coursework (50%) Requirement: 50% of credits applied toward the program’s graduate degree credit requirement must be courses designed for graduate work (this includes, but is not limited to, graduate thesis/research, independent study, and practicum/internship credits). Classes that satisfy this requirement include:
   a. Courses numbered 700 and above
   b. Courses in Mechanical Engineering that are numbered 500 and above (except for the following course numbers: ME 525, CS/ECE/ME 532, CS/ECE/ME539, ME 565, ME 567, ME 601, and ME 603)
   c. Courses in other Departments that count towards the Minimum Graduate Coursework (50%) Requirement

5. Transfer students may transfer a maximum of 9 formal course credits with advisor approval. Transferred courses must be ones for which graduate credit was awarded at the outside institution.

6. With faculty advisor approval, graduate students who obtained their undergraduate degree in the Department of Mechanical Engineering at UW-Madison may include up to 7 credits (numbered 400 or above) earned from that degree toward their minimum graduate degree credit requirement. These credits may be counted toward the minimum graduate coursework (50%) requirement if they are from courses numbered 700 or above. The form for approval of these credits is available at ME Academic Forms.

7. Students are required to take ME 903-Graduate Seminar the first two semesters in residence at UW-Madison. ME 903 credits are not included in the required credit count. All students, off-campus, part-time, or outreach will be exempt from taking ME 903 until they are on campus. Exemptions for other circumstances are considered on a case-by-case request.

8. Students must be enrolled for the semester in which they will graduate.
COURSE OPTION:

1. Total of 30 credits, at least 24 formal course credits (minimum of 15 formal course credits in ME taken at UW-Madison). A minimum of 3 credits of independent study (ME699) taken at UW-Madison with an ME faculty advisor are required.

2. A GPA of at least 3.0 based on all formal course credits attempted applicable to the degree credit requirement, and a GPA of at least 3.0 in ME formal courses. Credits with a grade of “D” or “F” cannot be used to satisfy requirements.

3. Acceptable courses are those numbered 400 and above. Certain 300-level courses outside of Mechanical Engineering are also accepted (a list of these courses is maintained at ME Graduate Student Website). The MS program must include at least one formal course numbered 700 and above (excluding ME964 courses unless specifically approved), these are advanced courses referred to as 700-level courses, taken as a grad student at UW-Madison. A limited selection of courses, with course numbers less than 700 in other departments, have been approved to satisfy this 700-level requirement (a list of approved courses including approved ME964 courses is available at ME Graduate Student Website).

4. Minimum Graduate Coursework (50%) Requirement: 50% of credits applied toward the program’s graduate degree credit requirement must be courses designed for graduate work (this includes, but is not limited to, graduate thesis/research, independent study, and practicum/internship credits). Classes that satisfy this requirement include:
   a. Courses numbered 700 and above
   b. Courses in Mechanical Engineering that are numbered 500 and above (except for the following course numbers: ME 525, CS/ECE/ME 532, CS/ECE/ME 539, ME 565, ME 567, ME 601, and ME 603)
   c. Courses in other departments that count towards the Minimum Graduate Coursework (50%) Requirement

5. Transfer students may transfer a maximum of 12 formal course credits with faculty advisor approval. Transferred courses must be courses for which graduate credit was awarded at the outside institution.

6. With faculty advisor approval, graduate students who obtained their undergraduate degree in the Department of Mechanical Engineering at UW-Madison may include up to 7 credits (numbered 400 or above) earned from that degree toward their minimum graduate degree credit requirement. These credits may be counted toward the minimum graduate coursework (50%) requirement if they are from courses numbered 700 or above. The form for approval of these credits is available at ME Academic Forms or from the student services office.

7. Students are required to take ME 903-Graduate Seminar the first two semesters in residence at UW-Madison. ME 903 credits are not included in the required credit count. All students off-campus, part-time, or outreach will be exempt from taking ME 903 until they are on campus. Exemptions for other circumstances are considered on a case-by-case request.

8. Students must be enrolled for the semester in which they will graduate.

Applying to all MS Programs regardless of Enrollment Date

CREDITS TAKEN AS A UNIVERSITY SPECIAL STUDENT

Students are encouraged to enter a graduate program as early as possible and not to "try out" the program as University Special students. Officially entering the program allows the student to receive appropriate advising and be fully integrated into the program structure. If University Special student credits are accepted by a program to fulfill program requirements, it is done on a case-by-case basis and is subject to the approval of the program. The number of credits that may transfer from a UW-Madison University Special student career to a UW-Madison graduate career is limited to no more than fifteen credits numbered 400 or above. This must be initiated and approved by the program.

Students using courses taken as a UW-Madison University Special student to count toward the minimum graduate degree, residence, or minor credit requirements have to pay the difference in tuition between graduate and University Special student tuition for the terms in question (already a historically established practice for the minimum graduate residence requirement). Those credits earned in such a semester still appear in the transcript history as "University Special" student, but the Registrar's Office adds a statement in the beginning of the transcript "All credits taken in [term] as a University Special student have been accepted by the Graduate School toward a degree program" after the student has paid the difference in tuition.
THESIS & FINAL EXAMINATION (for Thesis Students only)

1. A final thesis defense must be presented to the thesis committee that must include the major professor and at least two other faculty members.

2. Students must submit the final-draft copy of their thesis to the examination committee at least one week prior to the exam.

3. The final version of your thesis must be dropped off in Rm. B137 of Memorial Library located at 728 State Street before the degree deadline. You should have a title page and an approval page created for your Advisor’s signature and the date. Note that if you miss the deadline, you will be responsible for tuition and fees for an additional semester.

MS DEGREE FINAL CHECKLIST

At least four weeks prior to the oral examination (MS thesis students) or to completion of the final class (MS 30- credit & ME students), you must complete and return the correct Warrant Request form: ME Academic Forms. The request form and an unofficial transcript is submitted to the Student Services Office, 2107 ME. The request then is reviewed and processed by the Graduate School and returned to the Student Services office. You will receive an email notifying you when your warrant is in your folder.

Pick up your warrant from Student Services Office when you are finishing up classes or doing your defense. Obtain all the indicated signatures and make sure all the dates are filled in.

This warrant must be signed, dated, and returned to Rm. 2107 ME by the degree deadline in order to receive your degree. To check degree deadlines please visit http://grad.wisc.edu/currentstudents/degreedeadlines/

Also reference the Check-Out Procedure on page 24.
PhD DEGREE REQUIREMENTS

SUMMARY OF STEPS TOWARD A PHD IN MECHANICAL ENGINEERING

A. Admission to the Department of Mechanical Engineering Graduate Program.
B. Approval by the ME Qualifying Committee.
C. Approval of course program by the ME Graduate Committee.
D. Approval by the Mechanical Engineering Preliminary Examination Committee.
E. Approval of thesis and final examination.

COURSE AND GRADE REQUIREMENTS

1. A minimum of 42 formal course credits beyond the BS degree. This includes a minimum of five courses numbered 700 and above (excluding ME964 courses unless specifically approved), these are advanced courses referred to as 700-level courses. Four of the five 700-level courses must be taken at UW-Madison. A minimum of two 700-level courses must be in Mechanical Engineering at UW-Madison. A limited selection of courses, with course numbers less than 700 in other departments, have been approved to satisfy this 700-level requirement (a list of approved courses including approved ME964 courses is available at ME Graduate Website). Acceptable courses for the remainder of the required 42 formal course credits (this total includes the courses taken for the PhD minor requirement) are those numbered 400 and above. Certain 300-level courses outside of Mechanical Engineering are also allowed (a list of these courses is maintained at ME Graduate Student Website). Check with the ME Student Services Office (Rm. 2107 ME) if you have questions.

2. Minor requirements (also see the Graduate School Handbook):
   - **Minor Option A** (external) Requirements for external minor are defined by the department of that minor. Selection of this option requires the approval of the minor by the minor department.
   - **Minor Option B** (distributed) requires a minimum of 12 formal course credits. The course work should form a coherent group of courses for which graduate credit is allowed (see requirement 1). The approval of the advisor and the graduate committee is required.

3. The minimum required PhD GPA is a 3.25; however, students meeting the minimum requirements in all areas are not guaranteed approval of their programs. Programs with less than a 3.5 GPA will be scrutinized closely.

4. At least 18 thesis credits (790, 890, 990) are required with an overall grade of S. Thesis credit will be permitted only from the Department of Mechanical Engineering, except in the case of an approved co-advisor, credit then can be obtained through the co-advisor's department. Pre-dissertators should enroll in ME890 and dissertators in ME990. Please contact the Graduate Coordinator with your campus id # for the enrollment authorization.

5. Transfer students may transfer a maximum of 24 formal course credits with advisor and departmental approval. Transferred courses must be ones for which graduate credit was awarded at the outside institution. Forms for transferring courses are available at ME Academic Forms.

6. With faculty advisor approval, graduate students who obtained their undergraduate degree in the Department of Mechanical Engineering at UW-Madison may include up to 7 credits (numbered 400 or above) earned from that degree toward their minimum graduate degree credit requirement. These credits may be counted toward the minimum graduate coursework (50%) requirement if they are from courses numbered 700 or above. The form for approval of these credits is available at ME Academic Forms or from the student services office.

7. Students are encouraged to enter a graduate program as early as possible and not to "try out" the program as University Special students. Officially entering the program allows the student to receive appropriate advising and be fully integrated into the program structure. If University Special student credits are accepted by a program to fulfill program requirements, it is done on a case-by-case basis and is subject to the approval of the program. The number of credits that may transfer from a UW-Madison University Special student career to a UW-Madison graduate career is limited to no more than fifteen credits numbered 400 or above. This must be initiated and approved by the program.

Students using courses taken as a UW-Madison University Special student to count toward the minimum graduate degree, residence, or minor credit requirements have to pay the difference in tuition between graduate and University Special student tuition for the terms in question (already a historically established practice for the minimum graduate residence requirement). Those credits earned in such a semester still appear in the transcript history as "University Special" student, but the Registrar's Office adds a statement in the beginning of the transcript "All credits taken in [term] as a University Special student have been accepted by the Graduate School toward a degree program" after the student has paid the difference in tuition.
8. Students are required to take ME 903-Graduate Seminar the first two semesters in residence at UW-Madison. Two semesters of ME 903 is a requirement, but does not count toward the credit requirement. If an MS degree is received at UW-Madison, and two credits of ME 903 has already been earned no more ME 903 credits will be required. Off-campus, part-time, or outreach students will be exempt from taking ME 903 until they are on campus. Exemption is on a case-by-case request.

9. Students must be enrolled for the semester in which they will graduate.
QUALIFYING FOR THE PHD PROGRAM

Students wanting to continue graduate study toward their PhD degree in the Department of Mechanical Engineering must be approved by the PhD Qualifying Committee. The PhD Qualifying Committee, composed of no less than five faculty members in the Department of Mechanical Engineering, meets once each semester to assess the qualifications of students who have applied to enter the PhD program.

All applicants must take the PhD qualifying examination. This written exam is offered once each semester, usually during the week before the semester begins. Students are allowed a maximum of two opportunities to take the qualifying examination. The objectives of this examination are to:

- Provide additional information on which to base the decision of whether the applicant has the knowledge and skills needed to be successful at the PhD level.
- Ensure that the applicant has basic competency in the technical material related to the student’s intended research program.

When to Take the Exam

The qualifying exam is offered twice a year in August and January, prior to the start of the fall and spring semesters, respectively.

1. Students continuing their studies immediately after earning an MS degree in Mechanical Engineering from UW–Madison must take the exam no later than the second time it is offered after completing their MS degree. For continuing students graduating in the fall semester the first time the exam is considered to be offered is the following January, for students graduating in spring or summer semesters the first time it is considered to be offered is the following August.

2. Students desiring to enter the PhD program without an MS or equivalent degree must take the exam no later than the second time it is offered after completion of 30 graduate credits. For continuing students completing 30 graduate credits in the fall semester the first time the exam is considered to be offered is the following January, for students completing 30 graduate credits in spring or summer semesters the first time it is considered to be offered is the following August.

3. Students continuing their studies immediately after earning an MS degree in another physical sciences department at UW–Madison must take the exam no later than the second time it is offered after transferring to the Department of Mechanical Engineering. If enrolling for the first time in Mechanical Engineering starting in the fall semester the first time the exam is considered to be offered for transferring students is the following January, if enrolling for the first time in the spring semester the first time it is considered to be offered is the following August.

4. Students who previously earned an MS degree, either in Mechanical Engineering or in some other appropriate physical sciences program, and are now either returning or transferring to UW–Madison must take the exam no later than the second time it is offered after returning or transferring to UW–Madison. If enrolling in Mechanical Engineering starting in the fall semester the first time the exam is considered to be offered for transferring/returning students is the following January, if starting in the spring semester the first time it is considered to be offered is the following August.

5. In special cases, one additional semester may be allowed before the exam must be taken. To obtain approval to delay the exam for one semester, the student must submit a written request (approved by the student’s advisor) to the Mechanical Engineering Graduate Committee before the last week of class in the semester preceding the exam that the student would normally be required take. Extensions are granted only when it is clearly demonstrated that unusual circumstances warrant the delay. Students without an approved extension who miss taking the exam at the required time will forfeit one of their opportunities to be approved by the qualifying committee.
The Exam
ME Grad Students will be emailed information regarding sign-up and exam rules approximately 2-3 months prior to the
date of the qualifying exam.

The exam is composed of one two-hour fundamentals exam and three two-hour area exams. The fundamentals exam,
required of all students, covers basic topics in mathematics, physics and engineering science. The three area exams must
be selected from the following areas:

- Controls
- Fluid Mechanics
- Materials/Processing
- Design/Solid Mechanics
- Heat Transfer
- Thermodynamics
- Dynamic Systems/Vibrations
- Kinematics/Dynamics

Computer Aided Engineering

Evaluation of Student Qualifications
Grading of the fundamentals exam and the area exams is done by the faculty who have written these exam questions. To
help ensure that the grading is impartial, students are asked to write the last 4 digits of their student identification number
rather than their names on their exams. After the written exams have been graded and the grades on each exam have been
submitted to the chair of the Qualifying Committee, the committee meets to review the qualifications of each student for
entering the PhD program.

In addition to the results of the written exam, the Qualifying Committee considers other factors such as the student’s
academic record and research progress. At the discretion of the committee, the advisor may also be asked to consult with
the committee if additional input is desired. Based on all this information, the committee will decide whether to permit
the student to enter the PhD program.

The first time the student is evaluated by the qualifying committee, performance on the written exam is the most important
of these criteria. One of three decisions is made:

1. Positive. (The student is judged capable of completing the PhD and may enter the program.)
2. Conditional. (The student is probably capable but shows weakness in one or two areas that hopefully can be
improved by satisfactorily completing one or more courses suggested by the committee. The committee will re-
evaluate the student after considering the student’s grade in the course or courses.)
3. Negative. (The student is judged not ready to enter the program at this time and must repeat the PhD qualification
procedure the next semester if the student still wishes to enter the PhD program.)

The written examinations become the property of the department and will not be returned to the student. However,
students who receive a negative decision the first time may contact the committee chair to obtain additional insight
regarding their performance on the written exam so they can better prepare for their second attempt. Exam scores are
not given but some indication of the student’s strengths and weaknesses can usually be provided.

The second time the student is evaluated, the committee will look more closely at the demonstrated research potential
and progress since the first evaluation. The committee will also consider the amount of improvement on the written
examination. The student can no longer enroll in the department after the current semester if the committee's
decision is negative.

PROPOSED COURSE PROGRAM
A proposed course program is to be submitted to the Graduate Committee for approval before the end of the semester
following the semester in which the qualifying examination was passed. Do not wait until you want to present your
preliminary exam to submit your plan for approval. It can take six or more weeks to have your plan approved and the ME
committee does not meet during the summer months. Any changes to the program must be approved by the major
professor and the graduate committee. The necessary forms are at ME Academic Forms.
PRELIMINARY EXAMINATION

A. To be eligible to take the preliminary exam, students must have passed the qualifying exam, obtained final approval of their course program by the graduate committee and the department, and completed at least 32 graduate credits. If the course program has not been approved, it can take six weeks or longer for programs to be approved during the fall and winter term (programs are not approved during the summer). During the fall and winter terms it can take 4 weeks or longer to receive your preliminary warrant (this is in addition to the time it takes to get your course program approved), so plan accordingly.

B. The preliminary examination time and content is set and administered by the advisor and the committee.

C. A second attempt for the preliminary exam is allowed only if the qualifying exam was passed on the first attempt.

D. Exam must be taken at least nine months before the final thesis exam.

E. The normal expectation is that the preliminary examination be completed within 5 years of taking the qualifying exam (the preliminary examination is generally taken within 1 to 3 years of passing the qualifying exam). Students requiring more time must submit a request for extension to the Graduate Committee. Such requests will be considered on a case-by-case basis.

F. Students must complete a PhD Preliminary Exam Warrant Application ME Academic Forms at least four weeks prior to the preliminary examination. The request form and an unofficial transcript must be submitted to the Student Services Office, 2107 ME. The request then is reviewed and processed by the Graduate School and returned to the Student Services office. You will receive an email notifying you when your warrant is available. After the preliminary exam, this warrant must be signed and returned to the Student Services Office before the dissertation eligibility deadline, in order to be a dissertation for the following semester.

G. Students must submit the final-draft copy of the preliminary exam report to the examination committee at least one week prior to the exam.

H. Students must be enrolled for a minimum of 2 graduate-level credits during the semester in which they take their PhD preliminary examination. This is a minimum, if a student has other degree minimums through their RA, TA or grader contracts or through ISS that are higher, the student must follow those requirements.

PHD PRELIMINARY EXAMINATION GUIDELINES

A. The student, in consultation with the major professor, selects a committee of four professors including the major professor. These members also serve on the final thesis examination committee. Inclusion of the fifth committee member is optional at this time.

B. The student prepares a written report, not to exceed 50 pages (double spaced typing plus figures), and distributes it to the committee members at least one week before the examination. If this deadline cannot be met, the preliminary examination may have to be postponed.

C. The written report should include the following:
   i. Introduction to the thesis topic and objectives of the research.
   ii. Review of the previous work directly related to the thesis objective including a broad review of related work and an in-depth review of a few key papers.
   iii. Description of the thesis plan including procedures and methods to be used, and an indication of expected results.
   iv. A list of the references cited.

D. The written report should follow the same style guidelines as required for the thesis.

E. The major professor will review the candidate’s background for the committee members, i.e., BS degree, MS degree, work experience, and circulate the transcript at the start, prior to the presentation by the student.

F. The preliminary examination will last about 1-1/2 hours: 1/2 hour for the oral presentation by the student of the written report, 3/4 hour for the discussion of questions raised by the committee members, and 1/4 hour for evaluation by the committee members.

G. The oral presentation by the student reiterates the written report in a concise and factual manner. Committee members may ask specific questions at any time during the examination.

H. The committee (including the major professor) will ask additional questions of a general nature regarding the thesis topic after the oral presentation is completed.

I. The student will be asked to leave the room after there are no additional questions. The committee privately evaluates the written report, oral presentation and responses to questions prior to voting to pass or fail the student.
J. The student has the committee members sign the warrant making sure all dates are complete, and the student returns the warrant to the Student Services office.

**DISSERTATOR STATUS**

Students are eligible to obtain Dissertator status, if they so choose, at the beginning of any semester after they have finished all coursework and have passed the preliminary examination. The graduate school confirms through an email letter when a student has achieved dissertator status. Dissertators must enroll in exactly 3 credits to maintain their dissertator status. Unless the advisor directs otherwise, the three credits must be ME 990. Further information regarding dissertator status is available on the Graduate School website (https://grad.wisc.edu/acadpolicy).

**PHD THESIS GUIDELINES**

The Graduate School issues rules regarding the thesis format. Since these rules may change from year-to-year, it is your responsibility to get a current copy of these rules from the Graduate School website (http://grad.wisc.edu/currentstudents/doctoralguide). In addition to The Graduate School, your major professor and thesis committee members may have certain format requirements. The following suggestions are offered for your consideration in preparing your thesis:

- Put references in numerical order. The ASME style format or equivalent should be used.
- All figures and tables must have titles.
- Use SI units with other units in parentheses.
- Use standard abbreviations such as g not gm.
- Avoid using the first person, rather use the third person.
- Include a nomenclature with symbols listed in alphabetical order.
- A list of figures and a list of tables are required.
- The experimental error should be stated for all experimental results. Show error bars for all data and \( \sigma \) values after all tabular results.
- All equations should be numbered consecutively.
- Do not write out numbers. (Use 1/4 m (or 0.25 m) instead of one-quarter meter.).
- Review ASME journal articles and follow their style, except be more complete. The ASME publishes a style manual entitled “An ASME Paper,” ASME Manual MS-4, which you may obtain from ASME Headquarters in New York. Manuals from other societies, such as SAE, SME, etc., can be used if available.
PHD THESIS DEFENSE GUIDELINES

1. The final oral exam must take place before the major professor (who must be a member of the ME faculty) and at least four other faculty members. At least one faculty member on the committee must be from outside of ME. The members of the committee from outside of ME should be selected to have a background appropriate to evaluate the thesis. The exam is predominantly, but not exclusively, on the thesis.

2. The committee members should receive the thesis manuscript at least one week prior to the examination day. If this deadline cannot be met, the examination may have to be postponed.

3. The thesis defense will last about two hours—1/2 hour for an oral presentation of the thesis by the candidate, 1 hour for questions by the committee members, and 1/2 hour private discussion by the committee members. The committee members may ask questions at any time during the exam.

4. The committee will pay particular attention to see that the candidate’s own contributions are clearly delineated and thoroughly documented in the dissertation.

5. The major professor will review the candidate’s background for the committee members, i.e., BS degree, MS degree, work experience, and circulate the transcript at the beginning of the examination. The student may be asked to leave the room for a few minutes at this time.

6. The oral presentation by the candidate should be concise and factual. The introduction and review should be brief and the presentation should emphasize the research methods and results. The committee is primarily interested in the candidate’s own work. Questions by the committee during the presentation are generally for clarification purposes only.

7. After the formal presentation is completed, the committee members will ask extensive questions referring to specific parts of the thesis and the oral presentation. Every committee member will be allowed sufficient time to question the candidate. The major professor will act as the moderator, but will not answer for the candidate, except, for example, to clarify the question.

8. After approximately 1-1/2 hours, the candidate will be asked to briefly summarize the most important new findings of the thesis research. Upon polling the committee to determine that the members have no further questions, the candidate will be asked to leave the room.

9. Private discussion by the committee will focus on the evaluation of the thesis research itself, evaluation of the thesis defense by the student, and evaluation of the candidate’s overall record. There should be time for each member of the committee to consider each of these items, and, if necessary, to formulate instructions to be implemented by the major professor.
PhD DEGREE FINAL CHECKLIST

- At least four weeks prior to the final examination, students must complete and return the PhD Final Oral Defense Warrant Request, http://www.engr.wisc.edu/me/me-current-graduates.html. The request form and an unofficial transcript must be submitted to the Student Services Office, 2107 ME. The request then is reviewed and processed by the Graduate School and returned to the Student Services office. You will receive an email notifying you when your warrant is available.
- Students must submit the final-draft copy of their thesis to the examination committee at least one week prior to the exam.
- Pick up your warrant and warrant package materials from the Student Services Office (Rm. 2107 ME). You will receive an email notifying you that your warrant is available.
- After the exam, return the completed warrant to the Student Services Office (Rm. 2107 ME) so a copy can be placed in your file.
- The completed warrant and dissertation must be brought to 217 Bascom Hall for final review on or before the degree deadline. Please call the Graduate School at (608) 262-2433 to schedule an appointment for the final review. More information on Deadlines, Defending, and Depositing can be found at http://www.grad.wisc.edu/education/completedegree/ddd.html.

Also reference the Check-Out Procedure below.

IT IS THE STUDENT’S RESPONSIBILITY TO VERIFY THAT ALL GRADUATION REQUIREMENTS HAVE BEEN MET.

CHECK-OUT PROCEDURE

- Keys must be returned to the ME Department Office (Rm. 3107 ME) prior to leaving. In return, you will receive your key deposit(s) back. Your degree may be delayed if you do not follow this requirement. The purpose is to ensure that all department equipment is returned and that your office and desk are clean and ready to be used by another person. The checkout process should not be done at the last minute. One week before leaving would be ideal.
- If you had an assistantship appointment in your last semester, check in with the ME Payroll & Benefits Coordinator (Rm. 3107e ME) before you leave campus.
- For Domestic students, your diploma will be sent to your mailing address. For International students, your diploma will be sent to your diploma address. Please confirm this address is correct in your Student Center. Diplomas are sent 12-14 weeks after graduation to the mailing address or diploma address, respectively.
- An online survey will be e-mailed to all graduate students completing their degree. This survey is extremely helpful to the department in tracking where students go after graduation. We greatly appreciate your cooperation in completing this survey.
- Your e-mail account will be left active for a few months after graduation. You will receive an e-mail notifying you when your account will be deactivated. Once a student has graduated, they can also apply for a UW alumni e-mail on the Wisconsin Alumni Association website (http://www.uwalumni.com/).
- Feel free to contact the Student Services Office if you have any questions or concerns in the future, and please keep in touch!!!
DEGREE COMPLETION

COMMENCEMENT
Graduate students are encouraged to participate in the commencement ceremony. Commencement ceremonies are held in December and May. Because there is no ceremony offered during the summer, students have the option to participate in the Fall or Spring ceremony. Students should think of their degree completion and participation in the commencement ceremony as two separate events.

To participate in the commencement ceremony for any given semester, the student registers for graduation in their student center. A student can decide to participate in the ceremony up until the day of the ceremony, but if they have not notified registered 8 weeks before the ceremony, their name will not be printed in the commencement program. Please watch for email announcements regarding commencement.

Traditionally, PhD students are escorted by their faculty advisor. PhD students should discuss their commencement plans with their faculty advisor.

For more information on ordering the proper attire, dates, and times, please see the commencement website (http://www.commencement.wisc.edu/). Don’t forget to order your cap and gown!!!

DEGREE COMPLETION LETTER
You may visit The Office of the Registrar to receive a Degree Completion Letter documenting degree completion until your degree is posted and your diploma arrives.

DUPLICATE OR REPLACEMENT DIPLOMA
If you need a duplicate or replacement diploma, please complete and submit the Duplicate Diploma Request Form at Duplicate/Replacement Diploma Request form. There is a charge of $50.00 (USD) for a new diploma.

EXTERNAL PHD MINOR IN MECHANICAL ENGINEERING

Students from departments outside of Mechanical Engineering can receive a PhD minor in Mechanical Engineering. The requirements for an external minor in Mechanical Engineering are listed below. The minor must be approved by the Mechanical Engineering department. The minor approval form is available online at: ME Academic Forms. Submit the form to ME student services in room 2107 ME for approval.

REQUIREMENTS FOR EXTERNAL MINOR
1. A minimum of 9 formal course credits (not independent study or research credits) taken in Mechanical Engineering.
2. Courses must be numbered 400 or above in Mechanical Engineering.
3. One of the courses must be numbered 500 or above in Mechanical Engineering.
4. Only one of the courses may be cross listed in the student’s major department.
PhD Timeline in Mechanical Engineering
University of Wisconsin - Madison

Enter as...

1st attempt
Submit
Preliminary
Thesis
defense
of Qualifier Exam
Course Program
Exam
defense

2nd time offered
5 year max
Optional dissertation status
(3 credits of ME 900/semester)

MS in ME
at UW-Madison
By the end of the next semester
9 months minimum
5 years maximum

2nd time offered

MS transfer
after passing the qualifier exam:
(If exam passed in Jan, then submit by Dec.
If exam passed in Aug, then submit by May)

#absence limitations

BS
2nd time offered after
completing 30 graduate credits

Order thesis defense
4 weeks

option to resumes

Deliver thesis to committee
1 week

*an absence of 5 or more consecutive years requires re-admission to the program and possible forfeiture of graduate level credits
This guide was prepared by the Department of Mechanical Engineering, University of Wisconsin-Madison.

Comments or suggestions for improvements are welcome.