

Frequently Asked Questions, Applications in Fall 2018 (for Fall 2019 Start)

1. How do I apply for graduate studies in Mechanical Engineering?

The University of Minnesota only accepts applications online through the [Graduate School online application](#). Complete instructions are located [here](#).

2. What can I do to prepare to apply to the University of Minnesota?

We encourage you to begin early in order to prepare all the documents needed to support your application. The key steps/documents are as follows:

- A. Register and practice for the Graduate Record Examination (GRE) for PhD, and MSME Thesis Plan (A), Project Plan (B) applications. Note the GRE is not required for the course only MSME (Plan C) application.
- B. Obtain unofficial copies of your academic transcripts from all institutions you have formally studied at.
- C. Contact three of your professors, research supervisors, or work supervisors regarding letters of recommendation (note, only one letter is required for the course only MSME Plan C application). Please give letter writers ample time to complete recommendations. Recommendations are submitted online directly by the recommender, you only need to enter their names and e-mail addresses. **The e-mail address used for each recommender must be an official e-mail address from their institution of employment; recommendations which are submitted from personal e-mail addresses will not be considered.**
- D. If required, take either the TOEFL or IELTS. It is a University of Minnesota policy that non-native speakers of English must have an English Language Proficiency (ELP) rating in order to be considered eligible for a teaching assistantship. **An ELP score of 1 is awarded if the TOEFL speaking section score is 27 or higher, and permits a teaching assistantship appointment without further English instruction. A speaking section score of 24-26 leads to an ELP score of 2, and permits a teaching assistantship with concurrent enrollment in GRAD 5105 during the appointment period. TOEFL speaking scores of 23 or lower lead to an ELP score of 4, and a teaching assistantship cannot be provided without first completing GRAD 5102. If you are an international student and received a prior degree or will receive a degree from a domestic university (US institution) the TOEL is not required**
- E. Write the required application statement(s). Be honest and clear in your statements.

3. How do I determine my ELP if I am a non-native speaker of English?

ELPs are determined by your score on one of the following assessments:

- A. The internet-based TOEFL (speaking subscore, with the subscore to ELP score conversion noted in response to question 2).
- B. The SETTA (Spoken English Test for Teaching Assistants)
- C. The Final exam taken after coursework in the International TA Program (GRAD 5102 and GRAD 5105)

Click [here](#) to learn more about the SETTA and International TA course offerings through the Center for Education Innovation.

4. Can I have my application evaluated without paying the fee?

No, the fee must be paid before an application will be processed.

5. What should I write in my personal statement?

The personal statement should describe succinctly your reasons for applying to Mechanical Engineering at the University of Minnesota, your preparation for the PhD/MSME program, academic and research interests, future career plans, and other pertinent aspects of your background and interests. You should clearly state in the statement one to three areas of interest from the following sub-disciplines of Mechanical Engineering. **Please note, stronger personal statements will make clear why you are interest in the noted research areas; statements specific to Mechanical Engineering at the University of Minnesota are strongly encouraged.** Each year, our faculty members are actively looking for PhD and MSME students whose academic backgrounds and research interests are well aligned with the expertise of their research groups.

Areas of Research Emphasis within Mechanical Engineering at the University of Minnesota:

- Biotransport, Biopreservation, & Biotechnology
- Control Systems, Robotics, and Mechatronics
- Combustion & Engines
- Computational Physics
- Fluid Mechanics
- Fluid Power
- Heat Transfer & Thermal Energy
- Machine Design
- Materials Science & Solid Mechanics
- Medical Technologies & Devices
- Multiphase Systems: Plasmas & Particulate Flows
- Nanotechnology, Micro- Electromechanical Systems (MEMS)

The Personal Statement and all other statements can be completed through the [Graduate School online application](#)

6. On the online application it asks for more than one statement do I need to complete all of them?

You only need to complete the personal statement.

7. What are the minimum requirements to be considered for admission to a graduate program in Mechanical Engineering?

Applications are evaluated holistically; GPA, prior academic institutions, research experience/productivity, degree of difficulty in courses taken previously, letters of recommendation, GRE scores, and TOEFL scores (if applicable) are all considered during the admission process. **For this reason, there are no minimum requirements for any particular section. At the same time, we remark that admission is extremely selective for both the PhD and MSME program. We also remark that the University of Minnesota Department of Mechanical Engineering is committed to having a diverse study body, and all qualified students independent of race, color, religion, creed, sex, sexual orientation, gender identity, or national origin are encouraged to apply.**

8. What are my chances of being admitted to the Department of Mechanical Engineering?

Due to the large volume of applications and inquiries we receive during each admissions cycle, we cannot comment on the potential success of each applicant either in person, over the phone, or via e-mail. Truthfully, e-mails to the director of graduate studies or to the graduate program manager in the department asking for an evaluation of admission prospects are unlikely to illicit a direct response. Applications are also evaluated on the basis of the application materials only; additional meetings with

University of Minnesota staff and faculty are not considered in admission decisions. These policies are in place in an effort to make the admissions process as fair as possible to all applicants. Admissions decisions can only be made by the admissions committee after an application, including all supporting documents, is complete.

9. Does Mechanical Engineering admit applicants for the spring semester?

We admit graduate students who are not currently University of Minnesota students for the **FALL SEMESTER ONLY**. We expect admitted students to participate in orientation activities in the fall, and additionally enroll in courses prescribed by our faculty during orientation during the fall semester. Current University of Minnesota students interested in a non-traditional start time are encouraged to contact the [director of graduate studies](#).

10. Does the Department of Mechanical Engineering require that I calculate and list my grade-point average (GPA) on the application?

Applicants who received their undergraduate degree at a U.S. university or college should calculate and report their GPA using all course work at each institution they attended previously. Applicants who received their undergraduate degree/prior degrees outside the U.S. should calculate and report their GPA, but **SHOULD NOT** convert their grades to the U.S. grading scale. We are familiar with grading scales from around the world and will evaluate your transcript based on your country/institution grade scale. Please list your GPA on the application reflecting the grade base of your school. In addition, ***all applicants are encouraged to upload a resume/C.V. as part of the application. For international applicants, if your class rank is known please include your class rank in your resume, and upload an official document from your University certifying this class rank.***

11. How many letters of recommendation are required?

Three letters of recommendation are required for PhD and MSME Thesis Plan (A) or Project Plan (B) applications. Only one letter is required for the course only MSME Plan C application. Ideally, letters are written by (1) Professors at Universities with whom you have completed research, (2) PhD research staff at national laboratories with whom you have completed research, or (3) Professors who have been the lead instructor for courses you have completed. For (3), letters from tenure-track faculty will be weighted more heavily. We will additionally will accept one letter from a former employer, but note that these letters are weighed less heavily, particularly for PhD applications. Please do not contact the director of graduate studies or graduate program manager for advice on who to pick as recommenders; beyond the information provided in this FAQ, we are not able to comment on letter writer appropriateness. Additionally, please give your letter writers at least one month to complete the letter and ensure that all letters are completed by the application deadline.

12. Do I need to submit a financial certification form with my application?

If you are accepted, we will inform you of the information we need and send you the necessary forms. Do not send financial statements in advance.

13. Can I apply to the Ph.D. program directly without a Master's Degree?

You may apply directly to the Ph.D. without a Master's degree/directly from undergraduate studies. In fact, ***if the Ph.D. is your ultimate goal we strongly encourage you to apply directly to the Ph.D. program.***

14. Does the Department require a GRE subject test?

The department does not require GRE subject tests.

15. Do I need to report my official GRE or TOEFL scores?

ETS does not send TOEFL scores to the department and we require you to upload them along with your GRE scores with your application. If you do not have an official copy of your scores, please take a screen shot of your scores that are available online and simply include them in your Transcript PDF. If you are admitted you will need to supply official scores to the Graduate School Admissions Office, but not to the mechanical engineering department.

16. What is the minimum TOEFL score needed in order to be considered for admission?

The minimum TOEFL score required by the University of Minnesota for graduate admission is 79. Applicants with a score below this value cannot be admitted to the University. In addition, to be eligible for a teaching assistant, you must have a minimum score of 23 on the speaking section (see the response to question 2 for more details).

17. What is the minimum IELTS score needed in order to be considered for admission?

The minimum IELTS score required by the University of Minnesota for graduate admission is a 6.5.

18. Will I be notified when my application has been submitted or is complete?

The Graduate School Admissions Office will send you a confirmation email after your online application is submitted. Once the Graduate School Admissions Office forwards your application to our department you will receive an email if any materials are missing. It is the responsibility of the applicant to ensure that the application is submitted and all supporting documents, including letters of recommendation, are received by the Department of Mechanical Engineering by the appropriate deadline.

19. When will I be notified whether I have been admitted?

PhD applicants admitted during our first round of admissions may receive notification as early as late January. Following this initial period, admissions are completed on a rolling basis. All applicants are notified by e-mail. If your application is successful, the Department will notify you that you have been recommended for admission.

20. Who do I contact if I would like know the status of my application?

You may contact John Gardner, the department graduate program manager, at gardn032@umn.edu. However, please be aware that Mr. Gardner is not involved in admission decisions and cannot expedite application processing times. Do not contact the University Graduate School Admissions office.

21. How do I accept or decline an offer of admission?

Applicants receiving an offer of admission will also receive from the Graduate School Admissions Office a request to complete an Enrollment Form. Once the Enrollment Form is complete you will be eligible to register for classes. We appreciate notification via email from you to either the director of graduate studies or to John Gardner as well.

22. Am I eligible for financial support?

All PhD applicants completing their application prior to December 15 will be considered for department level fellowship support and a teaching assistantship in their first year of study. Fellowship support is typically offered at the time of admission for most admitted PhD students. Fellowship support covers the costs of tuition, provides health insurance, and, if provided for the whole year, provides a stipend in excess of \$27,000. PhD students entering the program are then expected to find an advisor during their first semester of graduate study, such that the remaining years of their education are supported at a level similar to the fellowship level by

a combination of research assistantships (provided directly by their faculty advisors) and teaching assistantships. Thesis and Project Plan (A & B) MSME applicants completing their applications prior to December 15 are also eligible for financial support in the form of teaching assistantships and/or research assistantships. However, MSME students will only be able to apply for these forms of financial support **after accepting admission** and the majority of MSME thesis and project based students do not receive financial support from the department. It is extremely rare for department level financial support provided to be provided to MSME applicants. Course plan (Plan C) MSME applicants are not eligible for any form of financial support from the department of any kind. Overall, MSME applicants to the University of Minnesota department of mechanical engineering should expect to cover the cost of their education and need to plan accordingly in doing so.

23. Why does my Application status show as incomplete if I submitted everything to the department?

The online application status is through the Graduate School not the department. You will need to contact the Graduate School Admissions Office regarding the status of your application.

24. Should I contact faculty for research openings before I am admitted?

If you are interested in learning more about potential research openings with specific faculty and intend on applying to the PhD program, you are encouraged to contact the department's director of graduate studies, Prof. Chris Hogan at hogan108@umn.edu. Prof. Hogan will forward your message to the appropriate faculty in the department whose research interests align with those you note in your e-mail. ***Please include a copy of your resume/C.V. with this e-mail, and note your GPA, class rank (if known), prior research experience, and any and all peer-reviewed publications or conference presentations you have been a part of in your resume/C.V. Faculty members will be much more likely to respond to e-mails which include this information. Furthermore, we request that you send such e-mails well in advance of the December 15 deadline.***

25. If I apply to the PhD program but am not admitted, will I be considered for admission to the MSME Program?

Yes, if you apply to the PhD program and are not offered direct admission to the PhD program, you will be considered for admission to the thesis based and project based MSME plans (A & B). In this instance, you would have the option to re-apply to our PhD program after completion of one year of graduate study at the University of Minnesota as an MSME student. All credits taken as an MSME student can be counted towards your PhD degree.

26. Where can I learn more about degree requirements?

The [mechanical engineering graduate student handbook](#) lists degree requirements for the PhD and MSME degrees. In addition, it contains detailed information on the PhD qualifying examination, written preliminary examination, and oral preliminary examination, as well as information on PhD dissertation defenses, MSME Plan A thesis defenses, and MSME Plan B research project presentations.

27. Where can I learn more about course offerings?

First year graduate students in both the PhD and MSME programs are encouraged to follow the course offerings described in five flowcharts developed by our faculty, in the areas of Heat Transfer & Thermodynamics; Fluid Mechanics; System Dynamics and Controls; Design & Manufacturing; and Reactive & Particulate Flows. These flowcharts are available on our department website (on the same page the FAQ is provided). For the listed courses, course descriptions are available via the University of Minnesota course catalog.

28. Where can I learn more about the research being done by department faculty?

The department [webpage](#) lists the names of all faculty within the Mechanical Engineering department able to serve as the primary advisor of PhD and MSME Plan A/Plan B students for their graduate research. This webpage links to more detailed research descriptions provided by individual faculty. Many faculty also maintain active research websites, have [google scholar](#) profiles, and or may belong to [researchgate](#). Collectively, via these websites, you can find recent publications written by our faculty; these websites and the publications typically describe in detail the current research interests of our faculty. Please note, applications geared towards specific research programs of a faculty member in our department are typically considered stronger applications.