

## Frequently Asked Questions for Master of Science in Engineering (MSE) Applicants

1. What is the difference between an MSME and an MSE degree?

Answer: The Masters of Science in Mechanical Engineering (MSME) is intended for people whose undergraduate degree is in Mechanical Engineering, Aerospace or a closely related field. The Masters of Science in Engineering (MSE) is for people whose undergraduate majors are in something else.

2. My undergraduate degree is not in science or engineering, can I apply for the MSE degree?

Answer: Yes, but you will need to complete the undergraduate required courses in mathematics, natural science, and engineering fundamentals. We have seen an increasing number of potential MSE applicants, whose undergraduate degrees are not in science or engineering disciplines, such as business, music and theater. If you are in this category, you will need to finish all the required undergraduate courses in mathematics, natural science, and engineering fundamentals listed in the departmental web sites under the MSE Degree ***before you submit your application to the program.*** We will not be able to consider your application until these requirements are met.

3. My undergraduate degree is in natural science (e.g., mathematics or chemistry) or another engineering discipline. Do I need to complete all the required undergraduate courses in mathematics, natural science, and engineering fundamentals before I apply?

Answer: The most competitive applicants have completed all or at least 75% of the undergraduate required courses when they submit their application. Even so, we understand that there may be two or three academic quarters between when you apply and when you start your MSE (assuming that you are admitted). Therefore, you are welcomed to apply with a plan in mind to finish the required undergraduate courses as much as possible before you start the MSE program. You may also want to explain the plan in your statement of purpose when you apply. This will allow the Admission Committee to better evaluate your readiness for the MSE program.

4. During my undergraduate study, I took a course similar to one of the required undergraduate courses in mathematics, natural science and engineering fundamentals for MSE. Could I waive the requirement for this course?

Answer: Please use the following procedure to check if a course is qualified for a waiver.

- Go to the UW course catalog (<http://www.washington.edu/students/crscat/>). Find and read the course descriptions for the course you want to verify.

- Go to the course catalog of your undergraduate university. Compare the course descriptions from your undergraduate university to UW's. Please keep in mind that the course titles may be different from one University to other. That is OK.
  - Create a spreadsheet with two columns and put the course descriptions from UW in one column and the description from your university in another or side by side.
  - If you believe the course descriptions match up. Please find the course syllabus for the course. The syllabus should have detail instruction of the course contents, e.g., topics covered in each week.
  - Send an email to the Graduate Adviser (megrad@uw.edu) and attach the spreadsheet, a copy of a transcript showing your final grade, and the course syllabus.
  - If it is decided the course you completed at another university matches the UW course, we will waive the course and you will not need to complete the undergraduate course.
5. Where can I complete the required, undergraduate courses in order to make application to the MSE degree?

Answer: We strongly recommend you complete the required courses at a Washington State Community College (where these courses are offered in the evening and online, tuition costs less and it is easier to enroll), another university, or an out-of-state community college. Trying to enroll in these courses at UW as a Non-Matriculated (NM) student is very difficult because post baccalaureate students do not have priority to register in UW undergraduate classes.

- At a Washington State Community College: Before registering, please make sure to check the UW Equivalency Guide, which allows you to determine if the community college courses match UW courses. The "Guide" can be found at <http://admit.washington.edu/Requirements/Transfer/Plan/EquivalencyGuide>.
  - At Another University or an Out of State Community College: Before registering, please check to make sure the course description for the UW course (found at <http://www.washington.edu/students/crscat/#EngColl>) matches the course description at the other College or University.
  - At UW: If a seat is available you can enroll as a Non-Matriculated Student. For instructions on registering as a Non-Matriculated student, please go to [http://www.outreach.washington.edu/nondegree/register/steps\\_nm.asp](http://www.outreach.washington.edu/nondegree/register/steps_nm.asp)
6. Am I guaranteed admission, if I complete all the required undergraduate courses in mathematics, natural science, and engineering fundamentals?

Answer: No. The decision of admission will also depend on many other factors, such as GPA and GRE scores. The readiness and completion of the required undergraduate courses is only one consideration.

7. As a graduate MSE student, can I enroll in the same graduate courses as a student completing an MSME degree?

Answer: Certainly. MSE students, however, may need some additional preparation before taking graduate courses. Many of our graduate courses (i.e., 500-level courses) assume that students are familiar with materials taught in 300- or 400-level undergraduate courses in our department. For an MSE student who has only completed the required mathematics, natural science and engineering fundamental courses (mostly 100- and 200-level courses), going into a 500-level graduate course without taking 300- or 400-level prerequisite courses could be a real challenge.

To cope with this situation, you might want to identify your interest area first. Then you take related 300- and 400-level undergraduate courses before you take the 500-level graduate course that you want. For example, if you are interested in renewable energy, you might want to take 300-level courses related to energy (e.g., thermodynamics, fluid mechanics, and heat transfer) before you sign up for a 500-level course on advanced thermodynamics.

8. Are MSE students required to complete more graduate courses than MSME students?

Answer: No. The requirements on graduate courses are the same.

9. Do MSE students pursue the Thesis or Non-Thesis option?

Answer: MSE students can pursue either option. With a growing graduate student population, more and more MS students (both MSME and MSE students) are taking the non-thesis option. If you want to pursue the thesis option, you will need to find a faculty advisor, who is willing to supervise you on the thesis research.

10. Will I have the opportunity to conduct research as an MSE student?

Answer: Yes. If you take the thesis option, you will naturally conduct research in order to work out your thesis. If you take the non-thesis option, you may conduct research via ME 599B (Special Project) up to 6 credits. You will need to find a faculty member to supervise your research in ME 599B. Students choosing this option must complete the "Special Project Registration" form found at [http://www.me.washington.edu/students/graduate/advising/special\\_project\\_registration.pdf](http://www.me.washington.edu/students/graduate/advising/special_project_registration.pdf) and submit it to the ME office **prior** to registering for the course.

11. Do MSE students have the same funding opportunities as MSME students?

Answer: In a nutshell, the answer is yes. To answer this question in a meaningful way, we need to understand the funding mechanism in this department. To receive funding, you can serve as a research assistant (RA) or a teaching assistant (TA).

RA positions are controlled by individual faculty members, so you will need to find faculty members whose research interests match yours in order to explore RA opportunities. See [http://www.me.washington.edu/research/faculty/interest\\_groups/](http://www.me.washington.edu/research/faculty/interest_groups/) for a list of ME faculty by research interest. Your non-ME undergraduate background may be attractive to some faculty members, because their research is multidisciplinary. Your non-ME undergraduate background may not be so attractive to other faculty members for other reasons. It can go both ways. If you are looking for RA funding, finding the right match is always the key.

TA positions are controlled by the department to support its teaching functions. About two thirds of TA positions are reserved for recruitment of new students. The remaining one third is open for current students who are in the program to apply. Many factors are considered when TA positions are offered, such as ability to TA a certain course (e.g., thermodynamics) and recommendation from the faculty teaching the course. If you are qualified, you will be considered equally as an MSME student.

12. What are my chances of getting funding as an MSE student?

Answer: From the answer of the previous question, there is no way that we can predict the chance of an MSE student receiving funding. There is one thing for sure. Funding is limited, and the competition is strong. You are competing with other MSME and PhD students.

13. Will an MSE degree make me as competitive in the workforce as an MSME degree?

Answer: We cannot answer this question. Finding a job depends on many personal attributes.

14. If I am not admitted as an MSE student, can I make application to the Graduate Non-Matriculated (GNM) Program?

Answer: Yes. The GNM Program is a very good way to try out our MSE program and show us you are capable of successfully completing graduate level Mechanical Engineering courses. While on GNM status, students can earn up to 12 credits toward their graduate degree providing they are later admitted. Please keep in mind that in order to re-apply to the program and be competitive, you must earn a minimum of 3.2 cumulative GPA. For more information about GNM status see [http://www.outreach.washington.edu/nondegree/register/steps\\_gnm.asp](http://www.outreach.washington.edu/nondegree/register/steps_gnm.asp)