

Frequently asked Q&A about applications to the Chemical Engineering Graduate Program at Missouri S&T

1. What is the application process and priority application deadline?

There are more than 40 graduate programs at Missouri S&T, but the campus has been using the same one application platform for all, nicknamed Slate: <https://connect.mst.edu/apply/>. A new applicant needs to create an account first before submitting application materials. The application materials include Cover letter (Statement of Purpose), Transcripts, three Letters of recommendation, and Test scores (GRE and TOEFL). The system will generate a checklist to guide through. If not all the needed documents were submitted, the application will be kept in the “Awaiting Materials” bin. If all application materials were submitted but the application fee has not been paid, the application is kept in the “Awaiting Payment” bin. The department cannot process these cases until they are moved out of the two bins.

Although we do consider graduate applications all year long because professors may have funded projects starting in different months, we recommend submitting complete applications before the following deadlines to increase your opportunities to be admitted and sponsored:

Fall semester –June 15 for international students and July 15 for US students

Spring semester –November 15 for international students and December 15 for US students.

2. What is the standard admission criterion?

Graduate admissions are generally reviewed and determined by the graduate committee which is chaired by the graduate coordinator. In general, the graduate admission criterion has four major components: academic credentials (GPA, school, etc.), letters of recommendation, GRE, and English proficiency test. The first two are usually more critical than the last two. The academic credentials, including BS major and university background, understandably tend to be the most important factor and there is a **minimum requirement of cumulative BS GPA at/above 3.0/4.0 (75%)**. The minimum English proficiency is set by the university, while the minimum GRE score is set by the department. For PhD applicants and those seeking financial support, their chances would increase with increasingly higher cumulative GPA and very strong letters of recommendation. Also important is the matching of interests between advisors and students. Although the department and the university are willing to be more flexible with the admission criterion for non-thesis MS and self-supported students, we do want and need to ensure proper preparedness for future academic success in our graduate program by examining these four components.

Prior MS degree is not required for PhD applications. In fact, BS degree holders with good credentials are encouraged to apply directly to PhD program without going through MS because professors with funded projects, traditionally and for very good reasons, have much stronger preference for PhD students over MS students.

3. Can the chemical engineering graduate program waive the application fee for an applicant that was affected by the pandemic or other hardships?

The application fee is collected NOT by the department but by the university. As a result, the department has NO decision or control over the application fee. To our knowledge, the application fee could be waived if you attended a university-sponsored application workshop or can be paid by a third party such as a professor or a department who is recruiting a particular student. To find a professor for this purpose, please refer to the following points.

4. The possibility of getting financial support via Graduate Research/Teaching Assistantship (GRA or GTA)?

For PhD students, we typically admit mainly those who have been selected for Graduate Research Assistantship by professors who have funded projects. Graduate Teaching Assistantship is given by the department but the positions are much fewer and mostly spent on existing students and for patching up funding discontinuity. The total number of admitted new PhD students varies from semester to semester and from year to year, but recently has been about 4-6 in Fall and Spring, respectively.

The majority of MS students and all non-thesis MS students are supported by either themselves or their employers. The most important reason is professors' strong or exclusive preference for PhD students. Funded MS positions should be considered exceptions, due to special arrangement/agreement by professors or certain special needs (e.g., lab TA) in the department. However, it is possible and not uncommon for an unfunded graduate student to become funded after successful discussion with a research investigator (professor) during their study.

International students are required by the US government to show sufficient support for securing their student (F1) Visa. According to the Office of International Affairs at Missouri S&T, the needed amount, the so-called Student I-20 Expenses, has been ~\$45,967/year in recent years. This amount can be covered by the funding support of a GRA or GTA, or by the student's own financial statement.

5. Do I need to contact a potential advisor before applying?

It might help because each semester we receive many qualified applications, more than we can admit. When an applicant is recruited or picked up (via interview or examining application materials) by a professor who has funded project(s) to sponsor graduate student(s), the decision and mutual commitment are typically honored and processed immediately by the department unless the applicant's credentials have noticable deficiencies. The rest of applicants are screened and ranked into different groups based on our admission criterion stated above. They will then be circulated among the graduate committee and the faculty for admission decisions.

6. Can I apply to Kummer Innovation and Entrepreneurship Doctoral Fellowship (KDF)

Kummer Innovation and Entrepreneurship Doctoral Fellowship (KDF) is a campuswide PhD award that offers significantly better financial support than typical GRA or GTA. Its purpose is to compete with fellowships offered by other agencies or universities for talented PhD students. An important condition to KDF application is that a candidate should be recruited and promised sponsorship first by a faculty advisor and then nominated by the advisor. Only afterwards can the student's application be considered complete and reviewed by the KDF selection committee. Without faculty nomination, KDF applications are incomplete and will not be considered. The selection committee is formed by members from various campus offices and units who will review and select for Fall and Spring separately very small percentages of most competitive PhD applicants. Those who are selected will yield their original GRA or GTA sponsorship to their advisor to support or admit other students. Those who are not selected will still have the GRA or GTA promised by their advisor to support their PhD study. Because it is intended for recruiting PhD students, prior MS degree can become a tie breaker and significant accomplishments during previous study (school, publication, GPA, etc.) are very important factors.

7. Can I join the Chemical Engineering graduate program from a non-ChE BS major?

Although most of our graduate students are from ChE BS programs, we do admit some from non-ChE but relevant backgrounds mainly for research purposes. For non-ChE students pursuing ChE PhD degree, they will be advised to go through "bridge" courses at undergraduate level to get prepared before taking the required graduate courses. These bridge and required courses could be used to earn either a graduate certificate and/or a non-thesis MS degree alongside their PhD study. For non-ChE students pursuing ChE MS degree, similar bridge courses need to be completed first before taking the required graduate courses. These bridge and required courses can be used to earn a graduate certificate or two alongside their MS degree.

8. What is the minimum GRE requirement of the program?

The department has been requiring GRE $Q \geq 155$ and $V+Q \geq 300$ for years, but decided to waive until Spring 2023 due to Covid pandemic. Very occasionally, a student may be recruited by a professor for a particular project but admitted without GRE or GRE not meeting the minimum requirement. The student will be given one year to take/retake GRE to meet the minimum requirements. Please note that GRE can be taken by more options now including online GRE that is available 24/7 worldwide. Please visit their website for details.

9. What is the minimum TOEFL score requirement of the program?

Other than the countries listed below, English proficiency is mandatory and regulated by the university, not the department. It usually requires TOEFL ≥ 79 , or equivalently IELTS ≥ 6.5 , PTE ≥ 53 , or Duolingo ≥ 105 . Very occasionally, a student may be recruited and then admitted without meeting the minimum English requirement. The student will be asked to take one of the English proficiency tests before or after arrival (with first year), or attend and complete the Intensive English Program at Missouri S&T.

America Samoa	Malawi
Anguilla	Malta
Antigua and Barbados	Mauritius
Australia	Montserrat
Bahamas	Namibia
Barbados	New Zealand
Belize	Nigeria
Bermuda	Papua New Guinea
Botswana	St. Kitts and Nevis
British Virgin Islands	St. Lucia
Cameroon	St. Vincent and the Grenadines
Canada (except Quebec)	Scotland
Cayman Islands	Seychelles
Dominica	Sierra Leone
England	Singapore
Fiji	Solomon Islands
Gambia	South Africa
Ghana	Swaziland
Gibraltar	Tanzania
Grenada	Tonga
Guam	Trinidad and Tobago
Guyana	Turks and Caicos Islands
Ireland, Northern	Uganda
Ireland, Republic of	United Kingdom
Jamaica	U.S. Virgin Islands
Kenya	Vanuatu
Lesotho	Wales
Liberia	Zambia
	Zimbabwe

10. Can I upload the unofficial Academic transcript, GRE and TOEFL scores for review purposes?

The electronic application website at <http://connect.mst.edu/apply> accepts photocopies of transcripts, diplomas, tests, letters of recommendation, etc. The university will review these documents first before forwarding the applications to the department for admission consideration. During the process, the applications will be placed in different bins such as “Awaiting Materials”, “Awaiting Payment”, “Awaiting Submission”, etc and will be given a checklist for you to find out if your documents are acceptable for review purpose. After admission and when you report to the campus for the first semester (part of check-in procedure), you will need to present official transcript(s) and diploma(s) to the Office of Graduate Studies. Additional considerations for course transferability, graduate degree equivalency, etc, by the department may also need your official transcript(s) and diploma(s).

11. What is the check-in procedure for new students upon arrival on campus?

After receiving admissions and securing student Visa, you should and can activate your mst student account, including student id number, mst email, and JoeSS account as soon as possible.

- 1) Setting up Missouri S&T email and JoeSS account (<https://registrar.mst.edu/psinfo/>): please see <https://it.mst.edu/getting-started/new-students/>. JoeSS is the electronic system that records and controls everything academic, including course enrollment every semester and degree audit. To log in, you will need campus email credential. In charge of it is the Registrar: registrar@mst.edu, 573-341-4181, 103 Parker Hall. When you talk to the Registrar, please also ask them about submission of official transcripts if needed.
- 2) International students should also immediately contact the Office of International Affairs: ia@mst.edu, 573-341-4181, 103 Parker Hall, for pre-arrival guidance including airport pickup and temporary lodging. Once arriving on campus for the first time, international students should also directly report to the Office of International Affairs first.
- 3) Final official transcripts: you are required to contact the Office of Graduate Studies: <https://grad.mst.edu/>, 573-341-4141, 216 Centennial Hall, for this purpose.
- 4) Student Health Services: you may need to complete some health forms and submit your immunization records to the Student Health Services. For additional information about the portal, required documentation, and services offered by Student Health Services, please visit their website at <https://studenthealth.mst.edu/> and/or their office at 910 W. 10th Street or by email mstshs@mst.edu or phone at 573-341-4284. It is quite common for new students to be given “immunization hold” on their JoeSS account at beginning to prevent them from being able to enroll. This hold will be removed once the students contact Student Health Services to clear needed forms/immunization records.
- 5) Meet with graduate coordinator, currently Dr. Wang at 210H Bertelsmeyer Hall, jcwang@mst.edu, 573-341-6705, to discuss your plan of study and course selection for the first semester. For this purpose, you can contact the graduate coordinator and/or your advisor, most conveniently by email, to get it done before your arrival.
- 6) Complete New International Student Orientation: usually the week before a semester starts. For more information, visit <https://international.mst.edu/orientation/>.

12. What if I got admitted but must arrive late after a semester has started?

Students may arrive up to ~30 days before the program start date which is indicated on I-20 in the case of international students. Late arrival after a semester starts is acceptable but the student’s advisor needs to fill out and submit to the Office of International Affairs a “Late Arrival Request” form where the latest arrival date allowed should be specified based on the communication between the student and advisor. The Office will then update and release the updated I-20 to the student. Late arrival students within two weeks after a semester starts can directly register/add courses electronically using JoeSS but need to use a Late Registration paper form from the Registrar if it is later than two weeks. If it is way too late, then it may be advisable to defer to the next semester upon approval of the sponsoring advisor and/or the department.

13. Can courses from a previous graduate degree study be transferred?

A graduate course from another university could be transferred if it was taken for graduate credit, given a B or A grade, and not used toward another degree. While the university's coursework requirements specify the number of credit hours, the ChBE department's coursework requirements, established by the faculty, specify what courses qualify for these credit hour requirements. The graduate core courses required for ALL graduate students are ChE 5100 (Intermediate Transport Phenomena), ChE 5110 (Intermediate Chemical Reactor Design), and ChE 5220 (Intermediate Engineering Thermodynamics). Non-thesis MS students should also take ChE 5150 (Intermediate Process Computing). PhD students are further required to take ChE 6100 (Advanced Chemical Engineering Thermodynamics) and ChE 6110 (Advanced Transport Phenomena). It is possible for students to be exempted out of one or more required graduate core courses, but such decisions are made by the graduate committee and course instructors in the department based on the students' transcripts and related course documents (syllabus, list of topics, etc.). These decisions are an important part of entry interview discussions with the graduate coordinator and will be written into the resultant memorandum to be placed in the students' files.