



Department of Chemical and Biomolecular Engineering

MCHE GRADUATE DEGREE REQUIREMENTS AND PROCEDURES



The MCHE program is a non-thesis degree intended to prepare students for a career in the field of chemical engineering. Opportunities for new graduate students span industries focused on energy, (petro)chemical, materials, biotechnology, environment and safety.

Additional information may be obtained from the Rice University General Announcements, the Office of Graduate and Postdoctoral Studies (graduate.rice.edu) and the Graduate Studies Committee of the Chemical and Biomolecular Engineering department. It is the student's responsibility to be familiar with the rules, procedures and requirements and to make sure that policies and timelines are followed in order to allow for a timely graduation. A student failing to meet department or university requirements is subject to dismissal from the program.

This document summarizes departmental requirements and includes information on some University requirements for graduate degrees.

Consult the General Announcements and Code of Conduct for official and complete information on University requirements at ga.rice.edu and students.rice.edu/students/conduct.asp

DEPARTMENT OF CHEMICAL AND BIOMOLECULAR ENGINEERING

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2023-2024 GRADUATE STUDIES COMMITTEE:

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Revised July, 2024

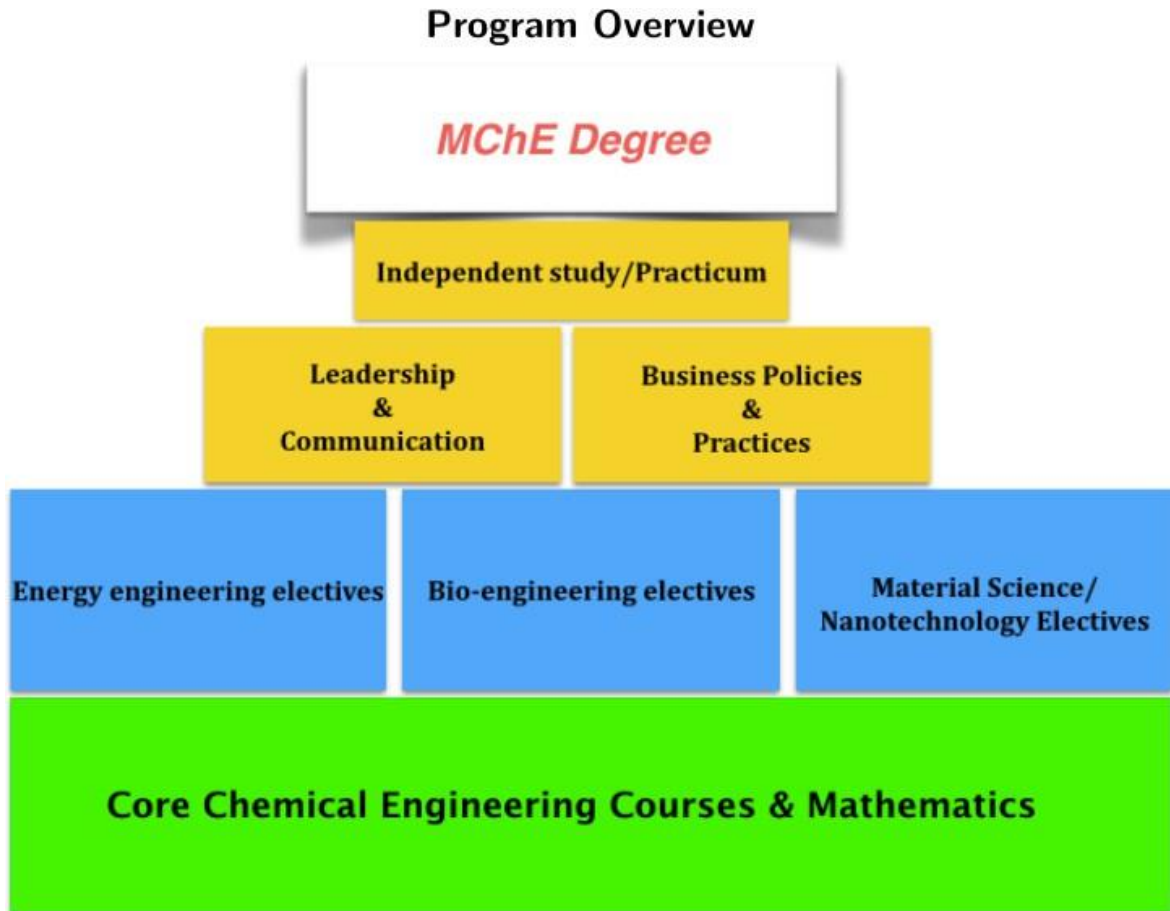


**Department of Chemical and Biomolecular
Engineering**

**MCHE GRADUATE DEGREE REQUIREMENTS
AND PROCEDURES**

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Graduate Degree Requirements and Procedures



1. Minimum of 30 credit hours of courses at 500-level or higher
 - Minimum of 18 hours (6 x 3-credit hours) of CHBE courses, including at least four of the five core courses listed below and one or two CHBE electives
 - Remaining electives can be from approved engineering, natural science, policy, and management courses
 - A minimum of 24 credit hours must be completed at Rice
 - Students with a non-Chemical Engineering Undergraduate degree may be required to take core undergraduate chemical engineering courses, as determined in consultation with the director. These undergraduate courses will not count towards the MChE degree.
2. Students are required to take at least four of the following core graduate chemical engineering courses

- a) Fluids (CHBE 501)
 - b) Kinetics (CHBE 590)
 - c) Transport (CHBE 602)
 - d) Thermodynamics (CHBE 611)
 - e) Applied Mathematics (CHBE 692)
3. Students must maintain a grade of B- or better in each course
 4. Students must meet the residency requirement

1. Advising Meetings

Before registering for courses, students are required to meet with MChE Director and confirm their plans. Students should come prepared with a concise and clean write-up of their plans for the coming semester and notes/observations about their (evolving) career plans. The Program Director will maintain an electronic record of the advising meeting. The student must inform the Program Director of any course selection updates made after the advising meeting. Unapproved course changes may not be certified by the Program Director.

2. Independent Study (CHBE 695) and Internships

CHBE 695, offered both in fall and in spring, can be used to undertake independent study either in a research group in the department or outside in an industrial setting. Final decision on accepting the proposal for independent study and the number of credit hours to be assigned rests with the Director of the MChE program, who is also the instructor for CHBE 695, and the chair of the graduate studies committee. A student may end up taking more than three (3) credits of CHBE695 over their course of study at Rice, but only a maximum of 3 credits (or the actual credits if less than 3) will be counted towards the degree.

For off-campus independent study, the student needs to first present an offer letter from the company stating clearly the work the student will pursue. The student needs to make an initial written presentation on how the work will contribute to his/her professional and intellectual development in Chemical and Biomolecular engineering. After approval by the Director of the MChE program, the student is required to turn in biweekly reports (duly signed by the off-campus

supervisor) documenting their progress. For such off-campus independent study, the student may accept appropriate financial compensation from the company offering the internship. Foreign students additionally need to have a curricular practical training (CPT) endorsement for off-campus work.

2.1 Summer Internships under ENGI 530 – Engineering Practicum

- Students undertake a work internship and write a report under supervision of a faculty member or find an appropriate internship and secure an offer letter
- Discuss the position with the MChE Director to ensure this is appropriate practical training and agree upon appropriate work samples that you will provide to evaluate your work. Students will also need an industrial mentor to monitor and evaluate your progress
- After these steps, the MChE Director will confirm the plans with Dr. Renata Ramos, Associate Dean of Academic Affairs, who leads ENGI 530. You should then print and sign the ENGI 530 student agreement form and deliver it to Dean Ramos (please contact Ms. Jen Mashburn —jm9@rice.edu — for an appointment).
- International students should also complete the form to request CPT authorization (available from OISS) and take it to Dean Ramos for signature, since it is under ENGI 530 that you will do the internship.

3. Seminar Series

The seminar series is a vital part of the overall graduate learning experience. The department hosts a seminar speaker each week during the fall and spring semesters. Per the PhD Policies and Procedures, all doctoral students are required to register for the graduate seminar course, CHBE 661/Fall and CHBE 662/Spring each semester in residence. MChE students may also register for the seminar course and earn the appropriate course credit. No more than two of these seminars may be excused and no more than two of these seminars may be substituted with a research-appropriate seminar from another department, program or center. To request an excused absence, contact the MChE Program Director and copy your request to chbe@rice.edu. Students should subscribe to the department seminar mailing list (ow.ly/oOSsb) to make sure they receive the weekly seminar announcements and notify the Academic Program Administrator of their enrollment in the seminar course.

4. Satisfactory Progress

MChE students are expected to make continuous and satisfactory progress towards fulfilling the degree requirements. Students must maintain a grade of B- or better in each course. In accordance with university policy (see General Announcements at ga.rice.edu) students whose CGPA falls below 2.67 or the semester GPA falls below 2.33 are placed on probationary status. University policy further states that any student placed on probationary status for a second semester will lead to an automatic dismissal by the Office of Graduate and Postdoctoral Studies, unless the student's department presents a plea for exception that is approved by the Dean of Graduate and Postdoctoral Studies.

5. Degree Certification

The MChE Program Director will certify Masters student degrees as complete in Degree Works, a web-based, degree-auditing and tracking tool that will enable a student to evaluate academic progress toward graduation. Within Degree works, the student should be able to identify quickly which degree requirements have been completed and which requirements are outstanding. Final certification must be completed in a timely manner once a student files an application for degree conferral with the Office of the Registrar. Students may access Degree Works at registrar.rice.edu/students/dw_instructions/.

6. Degree Conferral

Students can graduate at the end of the Fall, Spring, or Summer semesters. In order to qualify for a given commencement, students must meet the submission deadline for commencement per the appropriate Academic Calendar. Please confirm your plans well in advance of the deadline with the MChE Director.

7. Transfer to the MS Program/PhD program

The MChE degree is a terminal degree. Ideally, after graduation, students should plan to pursue their career either in industry, or, for greater and more diverse intellectual enrichment, in a different

academic institution. Students who wish to pursue a PhD in Chemical and Biomolecular Engineering at Rice should consult with the GSC Chair and will be required to follow the normal application procedures for the PhD program. The MChE Program Director or a member of the GSC can give a frank assessment and discourage such an application where warranted.

MChE students who have undertaken independent study with a faculty in the department, can with input from their faculty mentor, apply to switch to the thesis-based MS program. Based on input from the faculty mentor and the Director of the MChE program, the graduate committee may allow the student to switch to the MS program.

8. Rice University Policies Applicable to All Graduate Students

8.1 Leaves of Absence

All graduate students are expected to maintain continuous enrollment, unless an official leave of absence has been granted. Failure to register for any period without a leave of absence granted by the Associate Provost constitutes de facto withdrawal. If a student later wishes to resume study, reapplication is required. Readmission is given only on the recommendation of the department and the approval of the Associate Provost.

A leave of absence is granted by the Office of Graduate and Postdoctoral Studies upon recommendation of the department and only to a student in good standing with the university. Leave must be approved in advance of the academic semester in question; it will not be granted after the student has registered for courses or after the registration period has passed. Normally, a leave of absence is granted for no more than two consecutive semesters. No work toward a degree may be done at Rice or involve Rice faculty (or facilities) during a student's leave of absence.

8.2 Residency Requirement and Part-time Status

Semester course load for full-time students is nine (9) hours. Minimum residency for schools of engineering is one Fall or Spring semester in full time or part time graduate study. Students dropping below the nine hours and registering for at least three hours are

considered part-time. Students who wish to obtain part-time status must notify and obtain written permission from the MChE Director and the Academic Coordinator before the semester begins. A part-time status request will then be sent to the Office of Graduate and Postdoctoral Studies for final approval.

International students must obtain approval from the Office of International Students and Scholars (OISS) before dropping below the minimum hours required for full-time students; the request for approval is made by presenting a completed Reduced Course Load Authorization Form found on the OISS webpage. International students must verify with the department that this process has been completed with OISS before the formal request can be made to the Office of Graduate and Postdoctoral Studies. To maintain legal immigration status, international students are allowed to go part-time only in their final semester of study. As a part-time student the tuition paid will be based on the number of registered hours times the hourly tuition rate. Rates are found in the General Announcements/Tuition, Fees & Expenses at ga.rice.edu. Students are assessed a one-time per semester part-time enrollment fee of \$150 when enrolled for less than 9 credits.

9. Guidelines for Dismissals, Petitions, Appeals, Grievances, and Problem Resolution

Rice University graduate students have guidelines to assure fairness in problem resolution. These policies strive to uphold standards and raise the quality of graduate programs. They provide graduate students with an environment that has high standards, clear assessments of the student's achievements and fair and transparent procedures for handling cases of inadequate academic progress. Please find the complete list of guidelines in the General Announcements for graduate students at ga.rice.edu. These guidelines are to be followed by all Rice graduate students. The CHBE Graduate Studies Committee will be the standing committee for all issues regarding these guidelines.

10. Title IX Sexual Misconduct Policy

Rice encourages any student who has experienced an incident of sexual, relationship, or other interpersonal violence, harassment or gender discrimination to seek support. There are many options

available both on and off campus for all graduate students, regardless of whether the perpetrator was a fellow student, a staff or faculty member, or someone not affiliated with the university. Students should be aware when seeking support on campus that most employees are required by Title IX to disclose all incidents of non-consensual interpersonal behaviors to Title IX professionals on campus who can act to support that student and meet their needs. The therapists at the Rice Counseling Center and the doctors at Student Health Services are confidential, meaning that Rice will not be informed about the incident if a student discloses to one of these Rice staff members. Rice prioritizes student privacy and safety, and only share disclosed information on a need-to-know basis. If you are in need of assistance or simply would like to talk to someone, please call Rice Wellbeing and Counseling Center, which includes Title IX Support: (713)348-3311. Policies, including Sexual Misconduct Policy and Student Code of Conduct, and more information regarding Title IX can be found at safe.rice.edu.

11. Honor System

Students take all written examinations and complete any specifically designated assignments under the honor system. By committing themselves to the honor system, all students accept responsibility for assuring the integrity of the examinations and assignments conducted under it. The Graduate Honor Council (GHC) is responsible for investigating reported violations and for conducting a hearing when the facts warrant. The Office of Student Judicial Programs, which reviews the results of the investigations and hearings, considers the GHC's recommendations when issuing penalties. Procedures for accusations arising out of summer classes or Rice Online classes may differ.

Appendix A - CHBE Course Samples for Incoming MChE Graduate Students 2024-2025

2 Semester Plan (Fall and Spring)

Fall 2024

CHBE Core Course* - 3 Credits

CHBE Core Course* - 3 Credits

CHBE Elective** - 3 Credits

Elective – 3 Credits

Elective – 3 Credits

Spring 2025

CHBE Core Course* - 3 Credits

CHBE Core or Elective ** - 3 Credits

Elective – 3 Credits

Elective – 3 Credits

Elective – 3 Credits

3 Semester Plan (Fall, Spring, Summer and Fall)

Fall 2024

CHBE Core Course* - 3 Credits

CHBE Core Course* - 3 Credits

CHBE Elective – 3 Credits

Spring 2025

CHBE Core Course* - 3 Credits

CHBE Core Course* - 3 Credits

CHBE Core or Elective** - 3 Credits

Summer 2025

ENGI 530 Engineering Practicum – Max. 3 Credits

Fall 2025

Elective – 3 Credits

Elective – 3 Credits

Elective – 3 Credits

*Core courses are offered fall and spring. Depending on scheduling for 24-25 two and/or three may be offered in each semester. Core courses are CHBE 501, 590, 602, 611 and 692. Either four or five of the core courses must be taken during the first two semesters in residence.

**Elective courses must be at the 500-level or above to count toward the 30 credit hour requirement. Students may choose from engineering and/or natural sciences courses. A full course list can be found at registrar.rice.edu under Course Catalogue. Full time students must register for at least nine credit hours for fall and spring. Failure to register in a timely manner following the academic calendar deadlines may result in a late fee assessment for non-registration.

NOTE: Sample schedules will vary for those non-chemical engineering matriculants (see policy page 6).