

MASTER OF SCIENCE (MS) DEGREE IN THE FIELD OF CHEMICAL ENGINEERING

Program Learning Outcomes for the MS Degree in the field of Chemical Engineering

Upon completing the MS degree in the field of Chemical Engineering, students will be able to:

1. Demonstrate a solid foundation in the fundamentals of chemical engineering in four areas: applied mathematics, kinetics and reaction engineering, thermodynamics, and transport phenomena.
2. Apply advanced knowledge from several major areas of modern chemical engineering.
3. Conduct independent research by working on research projects, individually and in interdisciplinary groups.
4. Demonstrate professional written and oral communication skills.

Requirements for the MS Degree in the field of Chemical Engineering

MS Degree Program

The MS degree is a thesis masters degree. For general university requirements, please see [Thesis Master's Degrees](https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-thesis-masters-degrees/) (<https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-thesis-masters-degrees/>). For additional requirements, regulations, and procedures for all graduate programs, please see [All Graduate Students](https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/) (<https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/>). Students pursuing the MS degree in the field of Chemical Engineering must complete:

- A minimum of 30 graduate semester credit hours of coursework taken at the 500-level or above (including thesis credit hours).
- A minimum of 18 classroom credit hours with a minimum grade of B- (2.67 grade points) in each course. These courses must include:
 - 5 courses (15 credit hours) of core graduate Chemical Engineering (CHBE) courses (taken in the first two semesters), and
 - 1 course (3 credit hours) selected from other departmental (CHBE) course offerings, taken at the 500-level or above.
- An original research thesis and submit it to the Office of Graduate and Postdoctoral Studies.
- Pass a public oral examination in defense of the thesis.

The requirements listed in the General Announcements (GA) satisfy the minimum requirements for this degree program. In certain instances, courses (or requirements) not officially listed here may be substituted upon approval of the program's academic advisor or, where applicable, the department or program's Director of Graduate Studies. Course substitutions or any exceptions to the stated official curricular requirements must be approved by the [Office of Graduate and Postdoctoral Studies](https://graduate.rice.edu/) (<https://graduate.rice.edu/>). Students and their

academic advisors should identify and clearly document the courses to be taken.

Summary

Code	Title	Credit Hours
	Total Credit Hours for the MS Degree in the field of Chemical Engineering	30

Policies for the MS Degree in the field of Chemical Engineering

Department of Chemical and Biomolecular Engineering Graduate Program Handbook

The General Announcements (GA) is the official Rice curriculum. As an additional resource for students, the department of Chemical and Biomolecular Engineering publishes a graduate program handbook for the MS degree, which can be found here: https://gradhandbooks.rice.edu/2026_27/Chemical_Biomolecular_Engineering_MS_Handbook.pdf.

Transfer Credit

For Rice University's policy regarding transfer credit, see [Transfer Credit](https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/#transfer) (<https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/#transfer>). Some departments and programs have additional restrictions on transfer credit. Requests for transfer credit must be approved for Rice equivalency by the appropriate academic department offering the Rice equivalent course (corresponding to the subject code of the course content) and by the Office of Graduate and Postdoctoral Studies (GPS). Students are encouraged to meet with their academic program's advisor when considering transfer credit possibilities.

Additional Information

For additional information, please see the Chemical and Biomolecular Engineering website: <https://chbe.rice.edu/>.

Opportunities for the MS Degree in the field of Chemical Engineering

Additional Information

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