

BSE Chemical Engineering / MSE Chemical Engineering

SUGS Program

This Sequential Undergraduate/Graduate Study (SUGS) program allows students to complete requirements for both degrees in five years. Many students who enroll in this program plan to enter industry but seek additional intellectual depth beyond the bachelor's degree. Students who plan to pursue a PhD should apply directly to PhD programs. Students pursuing dual degrees are not eligible to enroll in SUGS programs.

Admission:

1. It's recommended that students should submit a pre-application for the program at the end of the second term of their Junior year for provisional admission into the program in order to be advised appropriately regarding planning for undergraduate and graduate course selections. SUGS students must enroll in Rackham for two at least two full terms, paying Rackham tuition.
2. Students should submit official applications (standard Rackham forms) using normal Rackham Graduate admission procedures, including letters of recommendation and a personal statement. Use program code 01552. Applications should be submitted after September 1 for the admission in the following year.
3. An overall GPA of 3.5 or above at time of admission is required. GRE scores are not required, but will be considered if provided.

Requirements:

1. A total of 30 graduate credits is required for the MSE degree, with at least 21 graduate credits of Chemical Engineering coursework.

These **must** include the following courses:

ChE 527:	Fluid Flow (3 cr.)
ChE 528:	Chemical Reaction Engineering (3 cr.)
ChE 538:	Statistical and Irreversible Thermodynamics (3 cr.)
ChE 542:	Intermediate Transport Phenomena (3 cr.)
ChE 505:	Math for Chemical Engineers (3 cr.)

These **may** include ChE 595 (Research Survey, 2 credits) and up to six credit hours (total) of:

ChE 695:	Research
ChE 698:	Directed Study or Practical Training ** (Performed outside the University) **

2. Cognate courses (courses outside of ChE) – 3 credits.

See the *Sequential Undergraduate/Graduate study (SUGS) Programs for ChE Students* handout for more information regarding how SUGS works.

Comments:

1. SUGS students must enroll in Rackham for two full terms minimum, paying full graduate tuition.
2. By Rackham requirement, students must be within 6 credits of completing their undergraduate degree to enroll in an M.S.E. program.
3. A maximum of 15 credit hours may be double counted or transferred for graduate credit, including a maximum of 9 credit hours double counted towards each of the two degrees and a maximum of

6 credit hours transferred from the undergraduate to graduate record. Credit transferred could not be double counted towards the 128 credits needed for the BSE.

4. Each degree may be awarded upon completion of requirements for the degree.
5. Hours of ChE 695, Research, can be elected for research study in a departmental research laboratory under direction of a departmental faculty member. The student can elect ChE 595 (2 credit hours) during the Fall term of the Senior year to assist in the selection of a research project and assignment to a faculty member.
6. Hours of ChE 698, Directed Study, can be elected for non-research project work in the department under direction of a departmental faculty member.
7. Hours of ChE 698, Directed Study, can be alternatively elected for industrially-oriented "practical" project experience. Typically, such study must be pre-approved, takes place in an industrial or governmental laboratory, and is jointly supervised by a departmental faculty member and on-site personnel. A formal written report and oral presentation of the study is required (requires election of 1 credit hour of ChE 698).

CONTACTS

Undergraduate:

Lisa Clark, 3142 Dow, (734) 763-7125, cheugadvising@umich.edu
<http://www.che.engin.umich.edu/undergraduate/program/sugs>

Graduate:

Ms. Susan Hamlin, NCRC Bldg 28 - G040S, (734) 763-1148, hamlins@umich.edu
<http://www.che.engin.umich.edu/graduate-contacts>
www.che.engin.umich.edu/graduate/program/sugs

Rackham SUGS website:
www.rackham.umich.edu/current-students/policies/academic-records/sugs-information