

Annual Academic Assessment Report

Doctor of Philosophy in Chemical Engineering (PhDChE)

AY 2023-2024

Program Goal

The program goal, or educational objective, of the Chemical Engineering graduate PhD program is to prepare students for advanced roles in the profession through a combination of planned coursework and research activities so that graduates are equipped to address present and future challenges in such areas as research, teaching, management, and commercialization.

Student Learning Outcomes:

At the time of graduation, students obtain the following outcomes in support of the program's educational objective to prepare the students to enter the professional practice of engineering:

1. Critically analyze meaningful and technologically relevant data, and for thesis students, plan and safely conduct research
2. Demonstrate proficiency in fundamental mathematics and chemical engineering problem solving
3. Understand professional and ethical responsibility
4. Develop and use effective written and oral communication skills

Assessment and Evaluation: AY 2022-2023

The faculty of the Ralph E. Martin Department of Chemical Engineering evaluated Student Learning Outcome assessment data at its annual faculty meeting, held August 16, 2023. The results of the analysis include the following:

- **Outcome 1:**
 - Student performance on the candidacy exam (consisting of the student's presentation of the research proposal to the graduate committee)
 - Student performance in the dissertation defense
 - Student performance on annual safety quizzes (average score)
- **Outcome 2:**
 - Student performance on the candidacy exam (consisting of the student's presentation of the research proposal to the graduate committee)
 - Student performance in dissertation defense
 - GPA of graduate coursework
- **Outcome 3:**
 - Student responses to the graduate exit interview questions
- **Outcome 4:**
 - Student performance on the candidacy exam (consisting of the student's presentation of the research proposal to the graduate committee)

- Student performance on dissertation defense
- Student responses to the graduate exit interview questions

Changes to the Degree Program – Planned or Considered

There are no changes to the PhDChE degree program planned or considered based on the assessment and evaluation process.

Changes to the Assessment Process – Planned or Completed

There are no changes to the PhDChE assessment process planned or considered based on the assessment and evaluation process.