

Chemical Engineering

University of Utah

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Mission

The mission of the Department of Chemical Engineering is to cultivate an environment through teaching, research, and service that fosters the technical, critical thinking, and communication skills necessary for students and faculty to contribute to the engineering profession and to the well-being of society.

Educational Objectives

The department and its constituencies have developed the following educational objectives. The objectives describe the career and professional accomplishments that the program is preparing graduates to achieve.

1. Graduates will contribute to their profession and succeed in their chosen careers.
2. Graduates will expand their knowledge and capabilities.
3. Graduates will be aware of issues that affect society and the world and will use this knowledge to strengthen their profession and contribute to the well-being of society.
4. Graduates will work effectively with others and practice ethical decision making.

Outcomes

The program outcomes are statements that describe what students are expected to know and be able to do by the time of graduation.

- a) an ability to apply knowledge of mathematics, science, and engineering
- b) an ability to design and conduct experiments, as well as to analyze and interpret data
- c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- d) an ability to function on multi-disciplinary teams
- e) an ability to identify, formulate, and solve engineering problems
- f) an understanding of professional and ethical responsibility
- g) an ability to communicate effectively
- h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- i) a recognition of the need for, and an ability to engage in life-long learning
- j) a knowledge of contemporary issues
- k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Constituencies

The Department has identified the following groups and institutions as its main constituencies: students, industry, governmental agencies, academe at large, members of the Chemical Engineering faculty at the University of Utah, and alumni.