

# Objectives for the Undergraduate Program

## Educational Objectives

- We expect our graduates to become innovative, competent, contributing engineers in the process industries.
- We expect our graduates to demonstrate their flexibility and adaptability in the workplace, so that they remain effective engineers, take on new responsibilities, and assume leadership roles.
- We expect some of our graduates to continue their education by obtaining advanced degrees.

## Program Outcomes

Upon graduation, graduates of the ChE program at UCSB are expected to have:

**PO1. [Fundamentals]** the fundamental knowledge of mathematics, computing, science, and engineering needed to practice chemical engineering and the ability to apply this knowledge to identify, formulate, and solve chemical engineering problem;

**PO2. [Laboratory]** the ability to design and conduct experiments and to analyze and interpret data;

**PO3. [Design]** the ability to design a system, component, or process to meet desired specifications; ability to use modern engineering tools necessary for engineering practice;

**PO4. [Advanced Training]** beyond the basic fundamentals in at least one area of chemical engineering as preparation for a continuing process of lifelong learning;

**PO5. [Teamwork/Communication]** the ability to function productively in multidisciplinary teams working towards common goals; the ability to communicate effectively through written reports and oral presentations;

**PO6. [Engineering & Society]** the broad education necessary to understand the impact of engineering solutions in a global/societal context; a knowledge of contemporary issues; an understanding of professional and ethical responsibility; a recognition of the need for and the ability to engage in lifelong learning.