The undergraduate programs in biomedical, chemical, civil, computer, electrical, industrial, petroleum and mechanical engineering are accredited by the Engineering Accreditation Commission of ABET [http://www.abet.org/](http://www.abet.org/).

View Cullen College enrollment and degrees awarded [4].

### Program Educational Objectives for Academic Programs

The criteria used to accredit engineering programs have undergone major revisions in recent years. The criteria require that each program for which an institution seeks accreditation or reaccreditation must have in place:

- detailed published educational objectives that are consistent with the mission of the institution and these criteria
- a process based on the needs of the program's various constituencies in which the objectives are determined and periodically evaluated
- a curriculum and processes that ensure the achievement of these objectives

Educational objectives for our B.S. programs in Biomedical Engineering, Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Industrial Engineering, Mechanical Engineering and Petroleum Engineering are described below. These objectives were formulated by the department faculties and have been developed with input from various constituencies such as advisory boards and students. We seek your comments and suggestions regarding possible modifications to these objectives. Please provide these via e-mail to the responsible administrator for the particular program at the addresses listed below. Thank you in advance for your suggestions and comments.

### Program Educational Objectives

**BIOMEDICAL ENGINEERING**

- Our graduates will pursue advanced studies in biomedical engineering or other disciplines if they so choose.
- Our graduates will meet or exceed the expectations of their employers in the biomedical engineering workplace or in other professional careers of their choosing.
• Our graduates will engage in self-development activities that will allow them to adapt to evolving technical challenges and changing career opportunities.

Direct your comments to makay [at] central [dot] uh [dot] edu (Dr. Metin Akay), Chair

CHEMICAL & BIOMOLECULAR ENGINEERING

Prepare graduates who will:

• meet or exceed the evolving expectations of employers, particularly in the energy and chemical industries,
• pursue life-long learning and development, especially through advanced studies, and
• become future leaders in industry, academe or government.

Direct your comments to mharold [at] uh [dot] edu (Dr. Mike Harold), Chair

CIVIL ENGINEERING

UH CE Program graduates will

• meet or exceed the expectations of their employers in the public and private sectors, and
• continue to develop professionally by pursuing licensure, graduate and professional studies and/or continuing education.

Direct your comments to rballarini [at] uh [dot] edu (Dr. Roberto Ballarini), Chair

COMPUTER ENGINEERING

• Our graduates will meet or exceed the expectations of their employers in the computer engineering workplace, or in other professional careers of their choosing.
• Our graduates will be successful in advanced studies in computer engineering or in other disciplines if they so choose.
• Our graduates will engage in self-development activities that will allow them to adapt to evolving technical challenges and changing career opportunities.

Direct your comments to broysam [at] uh [dot] edu (Dr. Badri Roysam), Chair

ELECTRICAL ENGINEERING

• Our graduates will meet or exceed the expectations of their employers in the electrical engineering workplace, or in other professional careers of their choosing.
• Our graduates will be successful in advanced studies in electrical engineering or in other disciplines if they so choose.
• Our graduates will engage in self-development activities that will allow them to adapt to evolving technical challenges and changing career opportunities.

Direct your comments to broysam [at] uh [dot] edu (Dr. Badri Roysam), Chair

INDUSTRIAL ENGINEERING

• Provide the knowledge and skill set for graduates to meet or exceed the expectations of the industrial engineering profession with respect to professional knowledge, responsibilities, and advancement.
• Prepare graduates to pursue advanced studies in industrial engineering or in other disciplines if they so choose.
MECHANICAL ENGINEERING

- To produce graduates who will be able to secure, to maintain, and to change professional employment or to gain placement in post-graduate education, if and when desired.

PETROLEUM ENGINEERING

Graduates of the University of Houston petroleum engineering program will:

- address the challenges of the world’s energy needs responsibly,
- exceed the evolving expectations of employers in the petroleum and energy industries,
- sustain industry leading skills, and
- be leaders in industry, academe, and government.

Program Student Outcomes

Students in each of the Cullen College’s engineering programs are expected to attain:

- an ability to apply knowledge of mathematics, science, and engineering;
- an ability to design and conduct experiments, as well as to analyze and interpret data;
- 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;
- an ability to function on multi-disciplinary teams;
- an ability to identify, formulate, and solve engineering problems;
- an understanding of professional and ethical responsibility;
- an ability to communicate effectively;
- the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
- a recognition of the need for, and an ability to engage in life-long learning;
- a knowledge of contemporary issues; and
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.