

## **CE Program Outcomes**

### **Student Outcomes for Objective A**

Students in this program will develop the following abilities through their undergraduate education in this department:

- A-1 to use the principles from chemistry, physics, statistics, and mathematics in engineering applications
- A-2 to use computer-based tools for engineering applications
- A-3 to identify, formulate, and solve engineering problems

### **Student Outcomes for Objective B**

Students will develop the following abilities through their undergraduate education in this department:

- B-1 to formulate design problem objectives, constraints, and synthesize problem information
- B-2 to be creative and innovative in developing designs that achieve desired performance criteria within specified objectives and constraints
- B-3 to communicate effectively through written, oral, and graphical presentations

### **Student Outcomes for Objective C**

Students will develop the following abilities through their undergraduate education in this department:

- C-1 to design and conduct experiments to analyze and interpret experimental data,
- C-2 to use modern engineering tools, software, and laboratory instrumentation
- C-3 to communicate effectively through written, oral, and graphical presentations

### **Student Outcomes for Objective D**

Students will be introduced to the following issues through their undergraduate education in this department and will gain:

- D-1 an ability to work in teams to solve multi-faceted problems
- D-2 an ability to understand and contribute to the challenges of a rapidly changing society
- D-3 an understanding of ethical and societal responsibilities of professional engineers
- D-4 an understanding of the need for lifelong learning and continuing professional education

### **Student Outcomes for Objective E**

Master of Science students, through their graduate education in this department, will:

- E-1 use advanced mathematics and engineering sciences in research and development of civil engineering systems
- E-2 receive a focused advanced engineering education in one of the areas related to civil engineering

### **Student Outcomes for Objective F**

Students will develop the following abilities through their graduate education in this department:

- F-1 to model and solve advanced engineering problems
- F-2 to conduct research within a specific area of civil engineering
- F-3 to communicate the result of research effectively through written, and oral, presentations