

SYRACUSE UNIVERSITY

Department of Civil & Environmental Engineering (CIE)

Department Mission and Goal Statements, Educational Objectives and Program Outcomes

The **mission** of the CIE Department is to promote learning and the creation, dissemination, and application of knowledge in Civil and Environmental Engineering through integration of teaching, scholarship, and service.

The **goal** of the CIE Department is to prepare students for engineering practice, advanced study, and life-long learning in Civil and Environmental Engineering. Our graduates are expected to be proficient in the fundamentals of engineering analysis and design, and to understand the importance and methods of effective communication. Our students are encouraged to use the extensive educational resources of Syracuse University and the Syracuse University community to broaden and enhance the quality of their university education.

The **educational objectives** of the civil/environmental engineering program are to graduate students who:

1. can apply technical knowledge and problem-solving skills to advance their careers and serve the community,
2. are prepared for engineering practice and advanced studies in civil/ environmental engineering,
3. will engage in life-long learning to keep themselves abreast of new developments in their fields of practice or study,
4. are capable of effective written and oral communications.

Our **program outcomes** are in-line with those identified by the Accreditation Board for Engineering and Technology (ABET 2000 a-k), i.e., at the time of their graduation, our students should acquire:

- (a) An ability to apply knowledge of math, 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.
- (d) An ability to function on multidisciplinary 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) An understanding of the impact of engineering solutions in a global, economical, 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 techniques, skills, and modern engineering tools necessary for engineering practice.

Curriculum: http://www.ecs.syr.edu/cie_undergrad.asp

Undergraduate Course Catalog: <http://www.syr.edu/publications/undergradcat/>