

Civil Engineering Program Mission, Objectives, and Outcomes

CIVIL ENGINEERING MISSION

The primary mission of the Civil Engineering (CE) Program at Penn State Harrisburg is to prepare undergraduate students for successful careers in civil engineering-related industries. Through the integrated efforts of faculty, staff, and administration, the mission of the CE Program remains consistent with the mission of the University. The Program is designed to provide undergraduate education required for civil engineering and/or continued formal education. Students utilize engineering science concepts, principles, and design techniques through coursework. Students are able to choose an area of specialization (e.g., construction, environmental, or structural) for professional practice and/or graduate studies.

PROGRAM EDUCATIONAL OBJECTIVES

The objectives of the program are designed so that the graduates will:

- Have skills needed to be engaged with industries or government agencies that design, construct, and maintain civil engineering structures.
- Effectively work in and/or lead interdisciplinary teams in addressing multiple facets of sustainable civil engineering.
- Have the ability to advance knowledge through professional development and educational opportunities as well as obtain and maintain professional licensing.

PROGRAM OUTCOMES

The students from the Civil Engineering Program at Penn State Harrisburg will have:

1. An ability to apply knowledge in mathematics, science, and engineering.
2. An ability to design and conduct experiments, as well as to analyze and interpret data.
3. 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.
4. An ability to function on multi-disciplinary teams.
5. An ability to identify, formulate, and solve engineering problems.

6. An understanding of professional and ethical responsibility.
7. An ability to communicate effectively.
8. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
9. A recognition of the need for, and an ability to engage in life-long learning.
10. A knowledge of contemporary issues.
11. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
12. An ability to focus on at least one of the concentration areas as defined by the Program.
13. A readiness to take the FE examination.



For more information

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