

CIVIL ENGINEERING, B.S. (CAPITAL)

Begin Campus: Any Penn State Campus

End Campus: Harrisburg

Program Educational Objectives

The Program Educational Objectives are designed so that the graduates from the Civil Engineering program at Penn State Harrisburg will:

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

Program Outcomes (Student Outcomes)

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

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.