

ABET Student Outcomes for the AE Program

The OSU Architectural Engineering Program offers a five year ABET accredited Bachelor of Architectural Engineering degree. The Bachelor of Architectural Engineering program's primary objective is to provide basic and professional education to engineering students primarily in building-related structural engineering. We endeavor to produce graduates who possess broad-based knowledge, skills, and judgment that will prepare them to succeed in the profession of architectural engineering or in further studies at the graduate level. The program is designed to prepare the student to contribute to society as a professional engineer dealing with analysis, design, and related activities within the construction industry. Further, the program seeks to utilize the broad resources of the University, to exploit a close relationship with the architectural program and to provide in-depth understanding of the professional field and a sensitivity to other less technical concerns related to the building environment faced by architectural engineers.

While the primary focus of the Architectural Engineering program is the safe and economical design of structural systems used in buildings, our students are also exposed to the basic engineering principals of environmental control systems.

Our program is fortunate to share space, equipment, other facilities, faculty, and many common courses with the Architecture Program. Our students graduate with an understanding of problems faced by architects with whom they are closely associated in professional practice.

Student Outcomes describe what students are expected to know and be able to do by the time of graduation. The architectural engineering program has adopted the following student outcomes:

- 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.**