Computer Science - School of Engineering  
Computer Science (CMPBD) Educational Objectives

# The program educational objectives of the Penn State Behrend Computer Science Program are to produce graduates who, within three to five years after graduation, are able to:

1. Be employed in industry, government, or entrepreneurial endeavors to demonstrate professional advancement through significant technical achievements and expanded leadership responsibility;
2. Demonstrate the ability to work effectively as a team member and/or leader in an ever-changing professional environment; and
3. Progress through advanced degree or certificate programs in computing, science, engineering, business, and other professionally related fields.

Graduates of the program are expected to demonstrate**:**

1. an ability to apply knowledge of computing and mathematics appropriate to the program's student outcomes and to the discipline.
2. an ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.
3. an ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
4. an ability to function effectively on teams to accomplish a common goal.
5. an understanding of professional, ethical, legal, security and social issues and responsibilities.
6. an ability to communicate effectively with a range of audiences.
7. an ability to analyze the local and global impact of computing on individuals, organizations, and society.
8. recognition of the need for and an ability to engage in continuing professional development.
9. an ability to use current techniques, skills, and tools necessary for computing practice.
10. An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
11. An ability to apply design and development principles in the construction of software systems of varying complexity.