

Student Outcomes

The current (2019 - present) student outcomes for the Computer Science with Concentration in Professional Computer Science Program (BS) are:

Graduates of the program will have an ability to:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
6. Apply computer science theory and software development fundamentals to produce computing-based solutions.

Student Outcomes 1 through 6 are assessed using the mapping to Previous Student Outcomes A through L. The mapping of current student outcomes to the previous student outcomes is described in the following:

Table of Mapping of Current and Previous Student Outcomes

Current Student Outcomes	Previous Student Outcomes
Graduates of the program will have an ability to:	Students will demonstrate:
1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.	B. an ability to analyze a problem and identify and define the computing requirements appropriate to its solution. (3110) I. an ability to use current techniques, skills, and tools necessary for computing practice. (4700)
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.	C. an ability to design, implement, and evaluate a computer-based system process, component, or program to meet desired needs. (2170)
3. Communicate effectively in a variety of professional contexts.	F. an ability to communicate effectively with a range of audiences. (3210, 4700)
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.	E. an understanding of professional ethical, legal, security, and social issues and responsibilities. (PH3170) G. an ability to analyze the local and global impact of computing on individuals, organizations and society. (1010)

Current Student Outcomes	Previous Student Outcomes
	<p>H. an ability to recognize the need for and an ability to engage in continuing professional development. (3210)</p> <hr/> <p>L. an understanding of secure programming practices. (1010)</p>
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.	D. an ability to function effectively on teams to accomplish a common goal. (4160)
6. Apply computer science theory and software development fundamentals to produce computing-based solutions.	<p>A. an ability to apply knowledge of computing and math appropriate to the discipline (3080)</p> <hr/> <p>J. 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. (3110)</p> <hr/> <p>K. an ability to apply design and development principles in the construction of software systems of varying complexity. (4700)</p>

The previous (before 2019) student outcomes for the Program are:

Students will demonstrate:

- A. an ability to apply knowledge of computing and math appropriate to the discipline
- B. an ability to analyze a problem and identify and define the computing requirements appropriate to its solution.
- C. an ability to design, implement, and evaluate a computer-based system process, component, or program to meet desired needs.
- D. an ability to function effectively on teams to accomplish a common goal.
- E. an understanding of professional ethical, legal, security, and social issues and responsibilities.
- F. an ability to communicate effectively with a range of audiences.
- G. an ability to analyze the local and global impact of computing on individuals, organizations, and society.
- H. recognition of the need for and an ability to engage in continuing professional development.
- I. an ability to use current techniques, skills, and tools necessary for computing practice.
- J. 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.
- K. an ability to apply design and development principles in the construction of software systems of varying complexity.
- L. an understanding of secure programming practices.