

# COMPUTER SCIENCE

---

## Bachelor of Science Computer Science Learning Outcomes

1. An ability to apply knowledge of computing and mathematics appropriate 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.
12. 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 trade-offs involved in design choices.

## Master of Science Computer Science Learning Outcomes

1. Apply theory of computation and advanced level concepts of programming languages to industrial and other large scale projects.
2. Use Computer Science research methods including design of efficient algorithms approaches to create and evaluate projects and generate reports.
3. Use the software engineering process to develop software that matches the operating system to customer requirements.
4. Successfully manage a software project from planning through
5. Implementation to evaluation phases and improvement hardware interface management between and among parallel and distributed systems, specifically as it pertains to connectivity and security.
6. Design and analysis techniques used to structure and implement industry level applications
7. Use of testing and measurement models to examine end product quality.