

Computer Science Department
California State University Northridge

Program Educational Objectives: Three to five years after successfully completing the computer science program our graduates will have demonstrated the ability to:

1. Solve computing problems as necessary in a professional workplace environment or in the pursuit of an advanced degree.
2. Apply current industry accepted computing practices and new and emerging technologies in the analysis, design, implementation, and verification of high quality computer-based systems to meet organizational needs.
3. Work collaboratively as team members and communicate effectively with all stakeholders in a professional environment.
4. Maintain professional and ethical conduct while appropriately applying knowledge of the societal impacts of technology in carrying out workplace responsibilities.
5. Continually improve professional skills and knowledge to stay current in the field and attain professional advancement.

Program Outcomes (Student Learning Outcomes): Students who successfully complete the Bachelor of Science Program in Computer Science will be able to:

- a) apply knowledge of computing and mathematics appropriate to the discipline
- b) analyze a problem, and specify the computing requirements appropriate to meet desired needs
- c) apply knowledge of programming concepts, algorithmic principles, and data abstraction to design, implement, and evaluate the software necessary to solve a specified problem
- d) function effectively on teams to accomplish a common goal
- e) understand professional, ethical, legal, security, and social issues and responsibilities
- f) communicate effectively with a range of audiences
- g) analyze the local and global impact of computing on individuals, organizations, and society
- h) recognize the need for and demonstrate an ability to engage in continuing professional development
- i) use current techniques, skills, and software development tools necessary for programming practice
- j) model and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices
- k) apply software engineering principles and practices in the construction of complex software systems