

OBJECTIVES

The educational objective of the Bachelor of Science in Computer Science (BSCS) program in the Department of Electrical Engineering and Computer Science (EECS) at Syracuse University is to prepare graduates who:

- **Are known by their professional competence, innovative thinking, ability to work individually and in diverse teams, leadership abilities, communication skills, and integrity.**
- **Are engaged in applying the knowledge acquired in their major, combined with their problem solving abilities, to produce feasible solutions to problems, in a timely manner, which are deemed important in industry, government, or academia.**
- **Exhibit the intellectual flexibility necessary to solve new problems in innovative ways by integrating multiple viewpoints in search of the best possible solutions.**

OUTCOMES (“a-through-k”)

For Bachelors of Science in CS, students demonstrate the following:

- (a) Ability to apply knowledge of computing and mathematics appropriate to the discipline. In particular, students should be able to apply this knowledge in a way that demonstrates comprehension of the tradeoffs involved in modeling, design and development of software systems of various scales and complexity**
- (b) Ability to analyze a problem, and identify and define computing requirements appropriate to its solution**
- (c) Ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs**
- (d) Ability to function effectively on teams to accomplish common goals**
- (e) Understanding of professional, ethical, legal, security, and social issues and responsibilities**
- (f) Ability to communicate effectively**
- (g) Ability to analyze the local and global impact of computing on individuals, organizations, and society**
- (h) Recognition of the need for lifelong learning and an ability to engage in the same**
- (i) Ability to use current techniques, skills, and tools necessary for computing practice**
- (j) 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) Ability to apply design and development principles in the construction of software systems of varying complexity**