Program Educational Objectives and Student Learning Outcomes for BS in Computer Science

Program Educational Objectives: The computer science program at the California State University, Northridge prepares students for life-long careers in computer science or related technical fields; such careers should enable its graduates to make valuable contributions to society and to find satisfaction in their chosen profession. Within a few years of graduation, the graduates of the computer science program are expected to meet the following program educational objectives:

1. Have a successful professional career in computer science or in related technical fields, or continue their education at the graduate level.
2. Continually improve their professional skills and knowledge to stay current in the field and to attain professional advancement.

Student Learning Outcomes: Students who successfully complete the Bachelor of Science Program in Computer Science will 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

COMP 108 course objectives:

Course Objectives: A successful student will be able to:

- **Learn how to solve problems using computer programming**
- **Learn the basic constructs of the Java programming language**
- **Learn how to design, write, test and debug computer programs**