

# DEGREES & CERTIFICATES

## COMPUTER SCIENCE ASSOCIATE OF SCIENCE (AS)

### About the Program

The Las Positas Computer Science department offers course that lead to an Associate of Science in Computer Science degree designed to prepare students to transfer into a baccalaureate program in Computer Science or a related field. These programs cover a wide range of computer related professions that include programming, systems analysis, data processing, database analysis and computer science. As technologies in computer science change, so will the content of this degree to assure graduates have what they need to be successful in both the current and future market places.

### Program Goals and Objectives

The Associate of Science in Computer Science degree designed to prepare students to transfer into a baccalaureate program in Computer Science or a related field.

### Career Opportunities

Computer Software Programmer Computer Software Tester Systems Analyst Software designer Mobile Application Developer Database designer, administrator and programmer

### Program Outcomes

- Upon completion of the AS in Computer Science, students are able to analyze, design, and solve complex computer-based problems using both logical and mathematical methods including the implementation of control and data structures.
- Upon completion of the AS in Computer Science, students are able to direct computer operations by writing detailed instructions in computer languages to solve a variety of problems.
- Upon completion of the AS in Computer Science, students are able to professionally describe and apply their skills in the design of their complex computer system or algorithm and be able to show how their solution is the most optimal.

### Learning and Career Pathway Maps

[View LPC Program Map](#)

[View CSU Program Map](#)

### Required Core: (30 Units)

CS 1 Computing Fundamentals I.....	4
CS 2 Computing Fundamentals II.....	4
CS 17 Discrete Mathematical Structures or .....	4
MATH 10 Discrete Mathematical Structures.....	4
CS 20 Advanced Programming with Data Structures/C++.....	4
CS 21 Computer Organization and Assembly Language Programming.....	4
MATH 1 Calculus I.....	5
MATH 2 Calculus II.....	5

### List A: Select One (3.5-5 Units)

MATH 7 Elementary Linear Algebra.....	3.5
PHYS 1B General Physics II.....	5

**Total Units for the Major..... 33.5-35**

### Program-Based GE: Select One (5 units)

CHEM 1A General College Chemistry I.....	5
PHYS 1A General Physics I.....	5

**Additional General Education and Electives..... 20-21.5**