Certificate

Computer Programming

This program empowers you to master computer programming by learning front-end and back-end web development technologies, building a strong software development foundation, and applying coding skills across platforms, setting you up for success in the tech industry. The Computer Programming program consists of one required course, one core course and three to five elective courses.

Total Units: 14
Completion Time: 9-12 months (full-time)
Modality: Online, in person, or choose a mix of both.
Special Programs: F-1 Compliant and WIOA/TAA Funding Approved.

*Courses may have prerequisites; review the course page before enrolling. A checkmark indicates the course is typically offered during that term. *

Required Courses

3 Units | 1 Course

COURSE NAME & NUMBER	UNITS	FALL	WINTER	SPRING	SUMMER
Object-Oriented Analysis and Design SEQA.X401	3.0	✓	✓	✓	✓

Core Courses

3 Units | Choose 1 Course

COURSE NAME & NUMBER	UNITS	FALL	WINTER	SPRING	SUMMER
Python for Programmers CMPR.X416	3.0	✓	✓	✓	✓
Java Programming II CMPR.X413	3.0		✓		✓
C++ Programming CMPR.X404	3.0	✓		✓	

Elective Courses

8 Units | Choose 3 to 5 Courses

Programming Languages

COURSE NAME & NUMBER	UNITS	FALL	WINTER	SPRING	SUMMER
C Programming I CMPR.X400	2.0		✓		✓
C Programming II CMPR.X401	3.0	✓		✓	
C++ Programming CMPR.X404	3.0	✓		✓	
Java Programming I CMPR.X412	2.0	✓	✓	✓	✓
Java Programming II CMPR.X413	3.0		✓		✓

Scripting Languages

COURSE NAME & NUMBER	UNITS	FALL	WINTER	SPRING	SUMMER
Python Programming for Beginners CMPR.X415	1.5	✓	✓	✓	✓
Python: Object-Oriented Programming CMPR.X420	2.0	✓	✓	✓	✓

*Scheduling is subject to change at any time by UCSC Silicon Valley Extension.
Please visit our website for all current course offerings.
FY 2024-2025

Contact Us:
extension@ucsc.edu

COURSE NAME & NUMBER	UNITS	FALL	WINTER	SPRING	SUMMER
Python for Programmers CMPR.X416	3.0	✓	✓	✓	✓
Data Structures and Algorithms Using Python CMPR.X425	3.0	✓	✓	✓	✓

Mobile Device Programming

COURSE NAME & NUMBER	UNITS	FALL	WINTER	SPRING	SUMMER
Mobile Application Development –Android and iOS, Introduction CMPR.X421	3.0	✓		✓	
Mobile Application Development –Android and iOS, Advanced CMPR.X422	3.0		✓		✓

Advanced Programming and Concepts

COURSE NAME & NUMBER	UNITS	FALL	WINTER	SPRING	SUMMER
Rust Programming Fundamentals CMPR.X426	3.0	✓		✓	
Hands-On Data Engineering DBDA.X424	3.0		✓		✓
Introduction to Machine Learning AISV.X400	3.0	✓	✓	✓	✓

Completion Review

Once all certificate requirements have been met and your final grades are posted, please access your Student Portal to enroll in the "Certificate Completion Fee" to begin the review process. Please allow 4-6 weeks to receive your certificate.

Available Specializations

Java Development

Advance your career with a specialization in "Java Development" to master fundamentals and efficient algorithms with the support of a strong Java community.

Python

Unlock your potential with a specialization in "Python" to master core skills in one of the most versatile programming languages, in high demand across various industries.