

COMPUTER SCIENCE, ASSOCIATE IN SCIENCE DEGREE

Banner Code: 1_AS_CSPR

Control Number: 08624

Financial Aid Eligible

This certificate is designed to provide the student with comprehensive grounding in the theory and practice of modern computer programming. Based on the recommendations of the Association of Computing Machinery, the Computer Programming Certificate prepares students to work as entry-level programmers. Students should not expect that they will necessarily meet the lower division requirements at specific colleges or universities. Students should consult the Transfer Information section of this catalog for specific transfer information.

Complete the Computer Science Certificate of Achievement and the Associate in Science graduation requirements as outlined in the Graduation Requirements section of the catalog.

Program Outcome

Based on the recommendations of the Association for Computing Machinery, The Computer Programming Certificate prepares students to work as entry-level programmers, or used to fulfill some of the requirements for transfer to a Computer Science program at a four-year university.

Review Graduation Requirements (<https://catalog.cccd.edu/orange-coast/graduation-requirements/associate-degree/>) and General Education (<https://catalog.cccd.edu/orange-coast/general-education-patterns/>).

Course	Title	Units
Required Courses		
CS A131 or CS A170	Python Programming I Java Programming 1	4
CS A150	C++ Programming Language 1	4
CS A250	C++ Programming Language 2	4
CS A200 or CS A262	Data Structures Discrete Structures	3-4
<i>Select one of the following:</i>		4-5
MATH A180/ A180H	Calculus 1	
MATH A182H	Calculus 1 and 2 Honors	
MATH A185/ A185H	Calculus 2	
Total Units		19-21

Requirement	Units
Program Major Units	19-21
AS General Education Option 1, 2, or 3	Varies
Transferable electives to satisfy unit requirement	Varies
Total Minimum Degree Units	60

Program Sequence

These sequences at Orange Coast College are general course curriculum maps for students to finish all major and general education requirements for two-year completion of degrees, and/or fulfillment of transfer requirements. The course sequence may include course prerequisites and other placement requirements. **Students are advised to meet with an Orange Coast College Counselor to review course selections and sequences to ensure that completion of this program will meet a student's transfer and career goals.**

Course	Title	Units
Year 1		
Semester 1		
CS A131 or CS A170	Python Programming I or Java Programming 1	4
MATH A180 or MATH A182H or MATH A185H	Calculus 1 ¹ or Calculus 1 and 2 Honors or Calculus 2 Honors	4-5
OCC AS GE AREA A1 - CHOOSE ONE		3
OCC AS GE AREA C1 - CHOOSE ONE		3
Units		14-15
Semester 2		
CS A150	C++ Programming Language 1	4
OCC AS GE AREA C2 - CHOOSE ONE		3
ELECTIVE (DEGREE APPLICABLE)		9
Units		16
Year 2		
Semester 1		
CS A250	C++ Programming Language 2	4
OCC AS GE AREA B - CHOOSE ONE		3-4
OCC AS GE AREA D - CHOOSE ONE		3
ELECTIVE (DEGREE APPLICABLE)		3
Units		13-14
Semester 2		
CS A200 or CS A262	Data Structures or Discrete Structures	3-4
ELECTIVE (DEGREE APPLICABLE) ²		14
Units		17-18
Total Units		60-63

¹ OCC AS GE AREA A2 and Math competency requirement

² VARIES TO REACH MINIMUM 60 DEGREE APPLICABLE UNITS