

COMPUTER SCIENCE, CERTIFICATE OF ACHIEVEMENT

Course	Title	Units
MATH A185/ A185H	Calculus 2	
Total Units		19-21

Financial Aid Eligible
Banner Code: 1_CN_CSPR
Control Number: 22387

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.

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.

Certificate of Achievement Requirements

The Certificate of Achievement is a state-approved career program that requires a minimum of eight units and is designed to prepare the graduate to enter a particular field of employment. In order to be awarded a certificate, students are required to obtain a grade of "C" or better in all program-required courses. Grades of "CR" or "P" will be accepted whereas "CR" or "P" meets the equivalency of a "C" or better. At least 3 units in an advanced course from the certificate must be completed at OCC at the department's discretion. Certificates of Achievement are not automatically awarded. A petition must be filed in Enrollment Services or online at the beginning of the semester in which the student will be completing their final requirements. The petitioning periods are listed in the Graduation Requirements (<https://catalog.cccd.edu/orange-coast/graduation-requirements/>) section of this catalog. Check with a counselor to determine the requirements for completion.

A list of certificate programs can be found in the Programs A-Z (<https://catalog.cccd.edu/orange-coast/programs-study/>) section of this catalog.

Course	Title	Units
Required Courses		
CS A150	C++ Programming Language 1	4
CS A170	Java Programming 1	4
CS A250	C++ Programming Language 2	4
CS A200	Data Structures	3-4
or CS A262	Discrete Structures	
Select one of the following:		4-5
MATH A180/ A180H	Calculus 1	
MATH A182H	Calculus 1 and 2 Honors	