

INFORMATION AND COMPUTER SCIENCES, ASSOCIATE OF SCIENCE DEGREE

Banner Code: 3_AS_ICS

Control Number: 44206

Financial Aid Eligible

This Associate of Science in Information and Computer Sciences is designed to provide students with a strong foundation in computer science, information technology, and related disciplines. Hands-on assignments will emphasize computer science principles, programming, and problem-solving skills. Major topics include programming language concepts, data structures, algorithms, and secure design. This comprehensive program equips students with the knowledge, skills, and practical experience needed to excel in the dynamic and rapidly evolving field of information and computer sciences.

Program Level Student Learning Outcomes

Upon completion of this program, students will be able to:

1. Demonstrate proficiency in various programming languages, software development methodologies, and technology tools commonly used in the field of computer science.
2. Demonstrate knowledge of information systems concepts, including the design and management of information systems to support organizational goals and decision-making processes.
3. Design and implement secure software and systems, identify vulnerabilities, and implement countermeasures.
4. Design, develop, and test software applications and systems that adhere to industry standards and best practices.

Review the Associate in Science and Associate in Arts Graduation Requirements (<https://catalog.cccd.edu/coastline/graduation-requirements/associate-degree/>) and General Education (<https://catalog.cccd.edu/coastline/general-education/>) requirements.

Course	Title	Units
Core Courses		
Complete the following:		
ICS C120	Introduction to Programming	3
ICS C123	Fundamental Data Structures	3
ICS C141	Concepts of Programming Languages	3
CYBR C101	Introduction to Cybersecurity	3
ICS C165	Foundations of Data Science and Artificial Intelligence	3
ICS C230	Secure Coding and Design	3
ICS C240	Computer Organization and Assembly Language	3
ICS C250	Object-Oriented Programming	3
or CIS C157	Introduction to Python Programming	
Elective Units		3

Course	Title	Units
Select one of the following:		
ICS C265	Artificial Intelligence	
ICS C290	Data Science and Machine Learning	
CIS C285	Data Governance, Privacy, and Policies	
<i>Major Units</i>		27
Local General Education or CalGETC pattern		varies
Electives to Satisfy Unit Requirement		varies
Total Units		60