

# INTRODUCTION TO PROGRAMMING, CERTIFICATE OF ACCOMPLISHMENT

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**Banner Code:** 3\_CE\_INPR  
**Not Financial Aid Eligible**

Completion of the Introduction to Programming Certificate of Accomplishment courses will provide students with a foundation in Computer Information Systems with an emphasis in Computer Programming. The focus on Introductory Programming provides the basic skills needed for an entry-level career or advancement into a position as a Software Application Developer. Topics covered will include information systems and computer networking concepts, e-business systems, software development lifecycle, Java concepts, principles of object-oriented programming, JavaScript language concepts, cloud computing skills, database management for Web developers, and introduction to python programming concepts

## Program Level Student Learning Outcomes

Upon completion of this program students will be able to:

1. Demonstrate proficiency and understanding of the software development lifecycle using software application development techniques to solve common business problems by designing and implementing an appropriate solution that meets industry standards.
2. Demonstrate the ability to program using Java.
3. Demonstrate the ability to develop Web applications using JavaScript.

Review Graduation Requirements (<https://catalog.cccd.edu/coastline/graduation-requirements/certificates/#accomplishmenttext>).

Course	Title	Units
<b>Required Core</b>		
Complete the following:		
CIS C111	Information Systems, Programming, and Database Management	3
CIS C155	Introduction to Java Programming	3
CIS C156	Web Development with JavaScript and Cloud Services	3
CIS C157	Introduction to Python Programming	3
<b>Total Units</b>		<b>12</b>