

# COMPUTER PROGRAMMER, COLLEGE CREDIT CERTIFICATE

**Program Code:** CPCC

**Meta-Major:** STEM

**Location(s):** Cocoa, Melbourne, Online

**Delivery Method(s):** On-Campus, Hybrid, Online

**Previous Degree Required:** HS Diploma

**Eligible for Financial Aid:** Yes

**Additional Limited Access Application Process Required:** No

**Program Testing Requirements:**

**Classification of Instructional Programs (CIP) Code:** 11.0202

**Florida Department of Education CIP Code:** 0511020200

This certificate is part of the [Computer Programming and Analysis A.S.](#) degree program.

This certificate program is designed to prepare students for entry-level program development and analysis in the computer environment. The core courses provide introduction to the computer, applications used on the microcomputer, and training in programming language, procedural logic, and design. The computer languages are introduced in a progressive delivery starting with structured programming (sequential, iteration, and decision making) used in procedural language, and then progressing to object-oriented language and visual language. Students currently employed in the field can supplement and upgrade their skills through a variety of offerings in programming languages, system analysis, and applications. Credits earned in this certificate also apply to the [Associate in Science \(A.S.\) degree in Computer Programming and Analysis](#). [Visit the program page for more details and how to apply.](#)

Refer to [course descriptions](#) to determine prerequisites.

## Certificate Requirements

Code	Title	Credit Hours
<b>Major Courses</b>		
CGS 1000	Exploring Digital Technology	3
CGS 2100	Microcomputer Applications	3
COP 1000	Principles of Programming	3
COP 2334	Introduction to C++ Programming	3
COP 2335	C++ Programming Advanced	3
COP 2360	C# Programming	3
COP 2700	Database Techniques	3
COP 2800	Introduction to Java Programming	3
COP 2822	Web Page Authoring	3
<b>Technical Electives</b>		<b>6</b>
CET 1176	Computer Maintenance and Repair	
CETC 1123	Microprocessor Fundamentals	
COP 1657	Introduction to Mobile Applications Programming	
COP 2047	Python Programming	
COP 2362	C# Programming Advanced	
COP 2671	Mobile Applications Development	
COP 2805	Advanced Java Programming	
COP 2812	Introduction to XML	

COP 2948 Service Learning Field Studies 1

Total Credit Hours

33

## Learning Outcomes: Computer Programmer, College Credit Certificate

- Code elementary data type variables using pseudocode
  - Supports Core Ability: Think Critically and Solve Problems
- Code programmer designed functions using pseudocode
  - Supports Core Ability: Think Critically and Solve Problems
- Code C++ programs designed for reading text files
  - Supports Core Ability: Think Critically and Solve Problems
- Code C++ programs using repetition control structures
  - Supports Core Ability: Think Critically and Solve Problems
- Code C# programs using built-in and programmer defined methods
  - Supports Core Ability: Think Critically and Solve Problems
- Code C# programs using logical operators
  - Supports Core Ability: Think Critically and Solve Problems
- Code Java iterative control structure types
  - Supports Core Ability: Think Critically and Solve Problems
- Code using Java built-in math functions
  - Supports Core Ability: Think Critically and Solve Problems
- Code hypertext markup language using Meta Tags
  - Supports Core Ability: Think Critically and Solve Problems
- Code hypertext markup language using images as list markers
  - Supports Core Ability: Think Critically and Solve Problems