COMPUTER PROGRAMMING CERTIFICATE

PROGRAM CODE: 1C21106
Financial Aid Eligible

The **Computer Programming Certificate** is designed to provide a working knowledge of what is required to be successful in the design, development, implementation, and maintenance of software programs and solutions based on user needs and requirements. To earn a certificate, complete the required courses as listed with a grade of C or better. At least 50% of all course work must be completed at Cypress College. This certificate requires a total of 16 units.

Code	Title	Units
Required core course (3 units)		
CSCI 242 C	Computer Architecture and Organization	3
Select any two beginning programming courses (6 units)		**6**
CSCI 123 C	Introduction to Programming Concepts in C++	3
CIS 226 C	Java Programming	3
CIS 247 C	Python Programming	3
Select one advanced course (3 units)		**3**
CSCI 133 C	Data Structures in C++	3
CIS 234 C	Data Structures in Java	3
CIS 275 C	Data Structures in Python	3
Select one or two electives for a total of (4 units)		**4**
CIS 190 C	IT and Cybersecurity Funds	4
CIS 256 C	Appl. Security & Pntratn Test.	4
CSCI 252 C	Discrete Structures	3
CIS 274 C	IT Project Management	3
COUN 139 C	Career Exploration	1
Total Units		**16**

Program Student Learning Outcomes:

OUTCOME 1: Acquire the skills necessary for workforce preparation in the field of computer programming, including object-oriented programming principles, secure coding, and the software development life cycle (SDLC).

https://www.curricunet.com/Cypress/reports/program_report.cfm?programs_id=1633