
C++ Programming - Skills Certificate

Units 18-21

(TOP Code: 070710; Academic Plan: C070713J)

This sequence of courses provides students with comprehensive training in high demand programming languages and tools such as Visual Basic and C++. Successful completion of the program will prepare students for an exciting career in software analysis, design, and development.

PROGRAM STUDENT LEARNING OUTCOMES

1. Create a fully documented modular design with correct mathematical and logical operations suitable for implementation from a given program specification.
2. Create, deploy, and test a basic program with valid syntax and proper logical and mathematical functions using the C++ programming language.
3. Design and implement solutions to a general-purpose problem using advanced programming techniques in the C++ programming language.
4. Employ complex data structures and algorithms, including sorting, searching, and recursion, to design and implement solutions to advanced computer science problems.

PROGRAM REQUIREMENTS

Requirements for the C++ Programming skills certificate may be met by completing 18-21 units of required courses with a grade of "C" or better.

REQUIRED COURSES (18-21 UNITS)

CS 101	(FORMERLY CO SCI 103) INTRODUCTION TO COMPUTER SCIENCE	3
OR		
CIS 101	(FORMERLY CO SCI 101) INTRODUCTION TO COMPUTERS AND THEIR USES	3
AND		
CS 111	(FORMERLY CO SCI 108) PROGRAMMING IN VISUAL BASIC	3
CS 102	(FORMERLY CO SCI 107) PROGRAMMING LOGIC AND DESIGN (INTRODUCTION TO PROGRAMMING)	3
CS 103	(FORMERLY CO SCI 104) MATHEMATICS FOR PROGRAMMERS	3
CS 116	(FORMERLY CO SCI 139) PROGRAMMING IN C++	3
CS 216	(FORMERLY CO SCI 140) OBJECT-ORIENTED PROGRAMMING IN C++	3
CS 136	(FORMERLY CO SCI 136) INTRODUCTION TO DATA STRUCTURES	3