
Applications Software - Certificate of Achievement

Units: 30-33

(State Code: 08224; TOP Code: 070200; Academic Plan: C008224D)

This sequence of courses prepares students for careers in applications software development and usage in fields related to microcomputer applications, databases, cloud computing, and programming. Students completing this program will find opportunities for employment in various Computer Science and Information Systems related businesses and industries.

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 Visual Basic or other programming languages.
3. Design and implement solutions to general-purpose and office applications problems using advanced programming techniques in Visual Basic or other programming languages.
4. Install, configure, and troubleshoot given problems for Windows or other operating systems.
5. Design and create a relational database using entity-relationship diagrams, normalization, SQL, PL/SQL, and Programming.
6. Design Infrastructure as a Service (IaaS) for cloud computing to provide computing instances, establish virtual private networks, and manage databases and storage.
7. Analyze performance metrics of cloud architecture to respond dynamically to information and computing workloads.

PROGRAM REQUIREMENTS

Requirements for the Applications Software certificate of achievement may be met by completing 30-33 units of required courses with a grade of "C" or better.

REQUIRED COURSES (30-33 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
CIS 111	(formerly CO SCI 134) SUPPORTING WINDOWS DESKTOPS	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
CIS 219	(formerly CO SCI 186) INTRODUCTION TO ORACLE: SQL AND PL/SQL	3
CS 113	(formerly CO SCI 141) PROGRAMMING IN JAVA	3
OR		
CS 116	(formerly CO SCI 139) PROGRAMMING IN C++	
CIS 192	INTRODUCTION TO CLOUD COMPUTING	3
CS 211	(formerly CO SCI 138) ADVANCED VISUAL BASIC PROGRAMMING	3
CIS 122	(formerly CO SCI 148) ADVANCED SPREADSHEET APPLICATIONS	3
CIS 193	DATABASE ESSENTIALS IN AMAZON WEB SERVICES	3