CIS: COMPUTER PROGRAMMING WITH AN EMPHASIS ON APPLICATIONS

Associate in Science Degree
Career Technical (Major Code: 02273)

Provides training in the theory and practice of computer programming and software design emphasizing business and computer applications. Prepares students for employment in the programming field and provides a strong foundation for students who desire to transfer to work toward a bachelor's degree in the area of information technology (IT).

Program Student Learning Outcome

- Demonstrate the use of the appropriate user interface design and application tools to solve various programming problems.

Code	Title	Units
Program Requirements		
BUS 120	INTRODUCTION TO BUSINESS	3
or BUS 134	eBUSINESS I: PRINCIPLES OF ELECTRONIC COMMERCE	
BUS 142	BUSINESS ETHICS---CORPORATE AND PERSONAL	1
BUS 183	BUSINESS MATHEMATICS	3
BUS 211	COMMUNICATION IN BUSINESS AND INDUSTRY	3
or BUS 212	BUSINESS COMMUNICATION	
CIS 101	INTRODUCTION TO BUSINESS INFORMATION SYSTEMS	4
CIS 106	INTRODUCTION TO PROGRAMMING LOGIC AND DESIGN USING PYTHON	3
CIS 115	INTRODUCTION TO PROGRAMMING USING C++	4
CIS 130	MICROCOMPUTER DISK OPERATING SYSTEM	1
CIS 146	INTRODUCTION TO STRUCTURED QUERY LANGUAGE (SQL)	2
CIS 167	QUALITY ASSURANCE AND SOFTWARE TESTING	3
CIS 226	OPERATING SYSTEMS AND COMMAND LANGUAGES	3
CIS/BUS 239	PROJECT MANAGEMENT	3
CIS 290	WORK EXPERIENCE CIS APPLICATIONS I	2-4
or CIS 291	WORK EXPERIENCE CIS APPLICATIONS II	
Plus Group A and Group B		
GROUP A: Open Source (10 units)		
CIS 108	PHP (PERSONAL HOME PAGE) AND MySQL	6
CIS 153	PROGRAMMING INTERNET VISUAL/ MOBILE APPLICATIONS USING JAVA	4
GROUP B: Microsoft (8 units)		
CIS 117	WINDOWS PROGRAMMING USING VISUAL BASIC	4
CIS 139	WINDOWING ENVIRONMENT	1
CIS 166	C# PROGRAMMING	3
Total Units		**53-55**

To earn an associate degree, additional general education and graduation requirements (http://catalog.swccd.edu/certificates-certifications-degrees-csuuc-requirements/) must be completed.

Some courses within this program may require additional coursework that must be completed prior to enrollment in these courses. Please consult the individual course listings for prerequisites and any other limitations on enrollment.