

CIS---SYSTEMS PROGRAMMING EMPHASIS

Associate in Science

Career/Technical (Major Code: 02090)

Provides training in the theory and practice of computer programming emphasizing industrial, business, and scientific applications. Prepares students for employment as entry-level programmers, system level software integrators (mini/micro environments), or software error recovery test and acceptance personnel using a variety of system software resources and associated techniques.

Program Student Learning Outcome

- Demonstrate the ability to solve industrial, business, and scientific programming problems using a variety of programming languages, system software resources, and associated techniques.

Code	Title	Units
Program Requirements		
CIS 106	INTRODUCTION TO PROGRAMMING LOGIC AND DESIGN USING PYTHON	3
CIS 115	INTRODUCTION TO PROGRAMMING USING C++	4
CIS 209	ASSEMBLY LANGUAGE PROGRAMMING	4
CIS 272	INTRODUCTION TO THE 'C' PROGRAMMING LANGUAGE	4
CIS 275	UNIX OPERATING SYSTEM: CORE FUNDAMENTALS	4
CIS 276	UNIX OPERATING SYSTEM: HIGH LEVEL INTEGRATION	4
CIS 117	WINDOWS PROGRAMMING USING VISUAL BASIC	4
CIS 153	PROGRAMMING INTERNET VISUAL/ MOBILE APPLICATIONS USING JAVA	4
Complete Common Core courses for Computer Information Systems		17-19
Total Units		48-50

Code	Title	Units
Recommended Electives		
CIS 133	ADVANCED MICROCOMPUTER SPREADSHEETS SOFTWARE	
CIS 137	ADVANCED WORD PROCESSING SOFTWARE	
MATH 140	DATA STRUCTURES AND ALGORITHMS	

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.

Code	Title	Units
Common Core		
BUS 211 or BUS 212	COMMUNICATION IN BUSINESS AND INDUSTRY BUSINESS COMMUNICATION	3
CIS/ELEC 10A	MICROCOMPUTER REPAIR AND SERVICE	2
CIS 101	INTRODUCTION TO BUSINESS INFORMATION SYSTEMS	4
CIS 130	MICROCOMPUTER DISK OPERATING SYSTEM	1
CIS 139	WINDOWING ENVIRONMENT	1
CIS 150	INTRODUCTION TO TELECOMMUNICATIONS AND THE INTERNET	1
CIS 226	OPERATING SYSTEMS AND COMMAND LANGUAGES	3
Select 2-4 units of the following:		2-4
BUS 290	WORK EXPERIENCE IN BUSINESS I	
BUS 291	WORK EXPERIENCE IN BUSINESS II	
BUS 292	WORK EXPERIENCE IN BUSINESS III	
BUS 293	WORK EXPERIENCE IN BUSINESS IV	
Total Units		17-19