



Program Planning Guide
Information Technology

Credential: Database Programming Certificate (C25590DP)

Program Length: 3 semesters

Career Pathway Options: Information Technology Associate in Applied Science Degree; Information Technology Diploma

Program Site(s): Lee Main Campus - Day

Suggested Course Schedule

1 st Semester (Fall)		Hours				Grade	Notes
		Class	Lab	Clinic	SHC		
CTI 110	Web, Pgm, & DB Foundation	2	2	0	3		
DBA 110	Database Concepts	2	3	0	3		
		4	5	0	6		

2 nd Semester (Spring)		Hours				Grade	Notes
		Class	Lab	Clinic	SHC		
CIS 115	Intro to Programming & Logic	2	3	0	3		
DBA 120	Database Programming I	2	2	0	3		
		4	5	0	6		

3 rd Semester (Fall)		Hours				Grade	Notes
		Class	Lab	Clinic	SHC		
Programming Elective – select one:		2	3	0	3		
CSC 134	C++ Programming						
CSC 139	Visual Basic Programming						
CSC 151	JAVA Programming						

Total Semester Hours Credit Required for Graduation: 15

Course Descriptions:

CIS 115 Introduction to Programming and Logic 2-3-3

Prerequisites: Take One Set: Set 1: DMA-010, DMA-020, DMA-030, and DMA-040, Set 2: MAT-121, Set 3: MAT-171

This course introduces computer programming and problem solving in a structured program logic environment. Topics include language syntax, data types, program organization, problem solving methods, algorithm design, and logic control structures. Upon completion, students should be able to manage files with operating system commands, use top-down algorithm design, and implement algorithmic solutions in a programming language. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics.

CSC 134 C++ Programming 2-3-3

This course introduces computer programming using the C++ programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level. This course has been approved for transfer under CAA and ICAA as a premajor and/or elective course requirement.

CSC 139 Visual BASIC Programming 2-3-3

This course introduces computer programming using the Visual BASIC programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

CSC 151 JAVA Programming 2-3-3

This course introduces computer programming using the JAVA programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion students should be able to design, code, test, debug JAVA language programs. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

CTI 110 Web, Pgm, & Db Foundation 2-2-3

This course covers the introduction of the tools and resources available to students in programming, mark-up language and services on the Internet. Topics include standard mark-up language Internet services, creating web pages, using search engines, file transfer programs; and database design and creation with DBMS products. Upon completion students should be able to demonstrate knowledge of programming tools, deploy a web-site with mark-up tools, and create a simple database table.

DBA 110 Database Concepts 2-3-3

This course introduces database design and creation using a DBMS product. Emphasis is placed on data dictionaries, normalization, data integrity, data modeling, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to design and implement normalized database structures by creating simple database tables, queries, reports, and forms.

DBA 120 Database Programming I 2-2-3

This course is designed to develop SQL programming proficiency. Emphasis is placed on data definition, data manipulation, and data control statements as well as on report generation. Upon completion, students should be able to write programs that create, update, and produce reports.