



**Computer Information Technology  
 Credential: Software Specialist Certificate  
 C25260SS**

Students will be exposed to office applications at the intermediate and advanced level as well as database applications and operating systems at the entry-level. Student can choose between a Web development class and an entry-level programming class to complete the certificate. The primary emphasis of the curriculum is provide students with entry-level knowledge of computing applications.

Graduates should qualify for employment in business, industry, and government organizations as entry-level software specialists, helpdesk technicians, computer operators, or any position that requires intermediate data processing skills.

Program Length: 2 semesters  
 Career Pathway Options: Associate in Computer Information Technology  
 Program Sites: Lee Campus - Day Program and Selected Evening Courses

**Course Requirements for Software Specialist Certificate**

CIS 110	Introduction to Computers	2-2-3
CTS 135	Integrated Software Introduction	2-4-4
DBA 110	Database Concepts	2-3-3
NOS 110	Operating System Concepts	2-3-3
 (Select one)		
WEB 140	Web Development Tools	2-2-3
CSC 139	Visual Basic Programming	2-3-3

Total Semester Hours Credit: 16

**CIS 110 Introduction to Computers** 2-2-3  
 This course introduces computer concepts, including fundamental functions and operations of the computer. Topics include identification of hardware components, basic computer operations, security issues, and use of software applications. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural science/mathematics (Quantitative Option). This course is also available through the Virtual Learning Community (VLC).*

**CSC 139 Visual BASIC Prog** 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 is also available through the Virtual Learning Community (VLC).*

**CTS 135 Integrated Software Intro** 2-4-4  
*Prerequisites: CIS 110 or CIS 111*  
 This course instructs students in the Windows or Linux based program suites for word processing, spreadsheet, database, personal information manager, and presentation software. This course prepares students for introductory level skills in database, spreadsheet, personal information manager, word processing, and presentation applications to utilize data sharing. Upon completion, students should be able to design and integrate data at an introductory level to produce documents using multiple technologies.

**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.

**NOS 110 Operating System Concepts** 2-3-3  
 This course introduces students to a broad range of operating system concepts, including installation and maintenance. Emphasis is placed on operating system concepts, management, maintenance, and resources required. Upon completion of this course, students will have an understanding of OS concepts, installation, management, maintenance, using a variety of operating systems.

**WEB 140 Web Development Tools** 2-2-3  
 This course provides an introduction to web development software suites. Topics include the creation of web sites and applets using web development software. Upon completion, students should be able to create entire web sites and supporting applets.