

**COMPUTER INFORMATION SCIENCE (AS) - ONLINE**

Credential	Credit Units	Length	Campuses	Version
Associate of Science Degree	96	24 months	Online	1-5

The Associate in Science degree in Computer Information Science is designed to provide the student with hands-on training in the latest data communications and computer operations technologies. AS degree students must complete the required coursework in the major core from one of the listed areas of concentration. The following describes each area of concentration.

**Programming**

This concentration provides coursework in computer programming and systems development, computer hardware, and operating systems, as well as accounting and business courses that complement the business-oriented applications graduates will encounter in the work place. The graduate will be familiar with microcomputer applications, programming applications, and design in a programming language. This concentration prepares an individual to enter the information technology industry in a variety of job roles, including entry-level programmer.

**Network Administration**

The Network Administration concentration enables students to build a solid foundation in the key technologies that drive many of today's corporate networks. Students in this concentration will gain hands-on experience with the hardware and software used in personal computers, learn to manage and direct network traffic, and develop system support skills that focus on installing, administering, and troubleshooting commonly used network hardware and software. This concentration helps prepare graduates for careers as Network Administrators, Network Technicians, Help Desk Technicians, PC Support Specialists, Technical Support Representatives, and more.

**Web Design**

The Web Design concentration covers the essential topics necessary to gain a complete understanding of the latest Internet and web site development technologies. Students learn all aspects of implementing an Internet and/or Intranet web site, including site planning and design, and will practice programming interactive web sites using the latest scripting languages and editing software. Graduates will develop a portfolio of their work and will have the opportunity to enter the job market as entry-level web designers in a variety of related positions and job titles.

Course Code	Course	Associate's Degree Quarter Credit Hrs.
<b>COLLEGE CORE REQUIREMENTS</b>		
SLS 1105	Strategies for Success	4.0
SLS 1321	Career Skills	2.0
CGS 2167C	Computer Applications	4.0
<b>Choose one of the following courses (students taking Web Design concentration must take CEN 1056C and MAN 2031):</b>		
CEN 1056C	Project Development	2.0
MAN 2031	Let's Talk Business	2.0
<b>TOTAL QUARTER CREDIT HOURS</b>		<b>12.0</b>
		<b>for Web Design Students 14.0</b>
<b>MAJOR CORE REQUIREMENTS – PROGRAMMING CONCENTRATION</b>		
APA 2111	Principles of Accounting I	4.0
APA 2121	Principles of Accounting II	4.0
BUL 2131	Applied Business Law	4.0
CEN 1509C	Computer Networking Fundamentals	4.0
CGS 1763C	Computer Operating Systems	4.0
CGS 1280C	Computer Hardware Concepts	4.0
COP 2010C	Programming Concepts	4.0
CGS 2461C	Fundamental Programming Techniques	4.0
CIS 2325	Introduction to the Systems Development Life Cycle	4.0
	Approved IT Electives*	8.0
<b>Choose one of the two-course language sequences in Visual Basic or C++ (4 credits each).</b>		8.0
COP 2170C	Computer Programming – Visual Basic I	
COP 2171C	Computer Programming – Visual Basic II	
COP 2224C	Computer Programming – C++ I	
COP 2228C	Computer Programming – C++ II	
<b>Programming Major Core</b>		<b>52.0</b>
<b>MAJOR CORE REQUIREMENTS – NETWORK ADMINISTRATION CONCENTRATION</b>		
CGS 1763C	Computer Operating Systems	4.0
CGS 1280C	Computer Hardware Concepts	4.0
CEN 1509C	Computer Networking Fundamentals	4.0
CEN 1561C	Network Operating Systems-Client	4.0
CEN 1562C	Network Operating Systems-Server	4.0

**ONLINE PROGRAMS**

CET	1605C	Network Routing I	4.0	
CET	2607C	Network Routing II	4.0	
CTS	2320C	Network Management	4.0	
CEN	2327C	Network Infrastructure	4.0	
CTS	2303C	Network Directory Services	4.0	
CTS	2761C	Implementing and Supporting E-mail Services	4.0	
		Approved IT Electives*	8.0	
		<b>NETWORK ADMINISTRATION MAJOR CORE</b>		<b>52.0</b>
<b>MAJOR CORE REQUIREMENTS – WEB DESIGN CONCENTRATION</b>				
CEN	1509C	Computer Networking Fundamentals	4.0	
COP	2010C	Programming Concepts	4.0	
CGS	2461C	Fundamental Programming Techniques	4.0	
CGS	1800C	Web Site Design Methodology	4.0	
CGS	1821C	Web Content Development	4.0	
COP	2840C	Content Generation – Scripting Languages	4.0	
CGS	2820C	Web Authoring	4.0	
CGS	2877C	Web Animation	4.0	
GRA	2225C	Graphic Design Using Adobe Photoshop	4.0	
CGS	2177C	E-Commerce Systems Administration	4.0	
CGS	2910C	Web Design Portfolio Project	2.0	
		Approved IT Electives*	8.0	
		<b>WEB DESIGN MAJOR CORE</b>		<b>50.0</b>
*Approved IT Electives to be selected in consultation with the Academic Advisor, Registrar, or Academic Dean from available coursework in the major (typically those courses with CEN, CIS, CGS, COP CTS and CET prefixes).				
<b>GENERAL EDUCATION REQUIREMENTS</b>				
ENC	1101	Composition I	4.0	
ENC	1102	Composition II	4.0	
POS	2041	American National Government	4.0	
MAT	1033	College Algebra	4.0	
PSY	2012	General Psychology	4.0	
AML	2000	Introduction to American Literature	4.0	
		<b>TOTAL QUARTER CREDIT HOURS</b>		<b>24.0</b>
<b>TOTAL QUARTER CREDIT HOURS REQUIRED FOR GRADUATION</b>				<b>96.0</b>