### **COMPUTER ENGINEERING**

# Computer Engineering AAS Degree – A25590CE

-Day and Evening

The Information Technologies – Computer Engineering A.A.S. degree provides students with the skills required to install, service, and maintain computers, peripherals, networks, and microprocessor and computer controlled equipment. It includes training in both hardware and software, emphasizing operating system and electronics concepts.

Course work includes operating systems, hardware support and repair, analog electronics, digital circuit analysis, programming, and customer service, with an emphasis on the operation, use, and interfacing of memory and devices to the CPU. Additional topics may include networking, databases, communication, professional practices and cybersecurity concepts.

Graduates should qualify for employment and entrepreneurial opportunities in electronics technology, computer service and support, computer networking, server administration, programming, and other areas requiring a knowledge of electronic and computer system repair. Graduates may also qualify to take industry certification exams in the electronic, computer, and networking fields.

#### **Program Sequence**

#### **FIRST SEMESTER** CTI 110 Web, Pgm, & Db Foundation ......3 CTI 120 Network and Security Foundations ......3 Writing and Inquiry......3 ENG 111 Quantitative Literacy......3 MAT 143 NOS 110 Operating Systems Concepts ......3 **SECOND SEMESTER** Hardware/Software Support......3 CTS 120 ELC 131 Circuit Analysis I ......4 Intro to Electronics Technologies ......2 EGR 131 NOS 130 Windows Single User ......3 NOS 230 **SUMMER SEMESTER** Analog Electronics I .......4 ELN 131 THIRD SEMESTER CSC 133 C Programming......3 CTS 115 Info Sys Business Concepts......3 IS Professional Comm......2 CTS 118 ELN 133 Digital Electronics ......4 OMT 154 Social and Behavioral Sciences Elec......3 **FOURTH SEMESTER** CTS 288 Professional Practices in IT......3 Advanced Hardware/Software Support ......3 CTS 220 Professional Research and Reporting ......3 **ENG 114** Major Elective......2 HUM/FA Elective ......3 **General Education Electives Humanities and Fine Arts Electives** (Choose 3 credit hours) ART 111 Art Appreciation ......3 HUM 115 Critical Thinking ......3 Music Appreciation ......3 MUS 110 PHI 240

## **Social and Behavioral Sciences Electives** (choose 3 credit hours)

ECO ECO POL PSY PSY SOC	251 120 118 150	Survey of Economics	3 3 3
Major Electives			
(choose a minimum of 2 credit hours)			
CSC	116	Introduction to Functional Programming	3
CSC	120	Computing Fundamentals I	4
CSC	121	Python Programming	3
CSC	134	C++ Programming	
CSC	139	Visual BASIC Programming	3
CSC	151	Java Programming	
DBA	110	Database Concepts	
DBA	115	Database Applications	
NET	125	Introduction to Networks	3
NOS	120	Linux/UNIX Single User	
SEC	110	Security Concepts	
WBL		Work Based Learning (all numbers accepted)	2
Graduation Requirement			