CURRICULUM STANDARD

Effective Term
Fall 2007
*[2007*03]*

Curriculum Program Title	**Computer Engineering Technology**	Code	**A40160**
Concentration	**(not applicable)**		

Curriculum Description

The Computer Engineering Technology curriculum provides 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 systems concepts to provide a unified view of computer systems.

Coursework includes mathematics, electronics, digital circuits, and programming, with emphasis on the operation, use, and interfacing of memory and devices to the CPU. Additional topics may include communications, networks, operating systems, programming languages, Internet configuration and design, and industrial applications.

Graduates should qualify for employment opportunities in electronics technology, computer service, computer networks, server maintenance, programming, and other areas requiring a knowledge of electronic and computer systems. Graduates may also qualify for certification in electronics, computers, or networks.

*Curriculum Requirements**

I. General Education. Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.

II. Major Hours. AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work experience, including cooperative education, practicums, and internships, may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. *(See second page for additional information.)*

III. Other Required Hours. A college may include courses to meet graduation or local employer requirements in a certificate, diploma, or associate in applied science program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

	AAS	**Diploma**	**Certificate**
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	12
Other Required Hours	0-7	0-4	0-1
Total Semester Hours Credit in Program	**64-76**	**36-48**	**12-18**

**Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic use of computers.*

Major Hours

A. Core. The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.

B. Concentration *(if applicable).* A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.

C. Other Major Hours. Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work experience, including cooperative education, practicums, and internships, may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit.

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				AAS	Diploma	Certificate
Minimum Major Hours Required				**49 SHC**	**30 SHC**	**12 SHC**
A. CORE				**19-21 SHC**	**NR**	
Required Courses:						
CET	111	Computer Upgrade/Repair I	3 SHC			
ELN	133	Digital Electronics	4 SHC			
Required Subject Areas:						
DC/AC. ***Select 5-6 SHC.***						
ELC	131	DC/AC Circuit Analysis	5 SHC			
or						
ELC	138	DC Circuit Analysis	3 SHC *and*			
ELC	139	AC Circuit Analysis	3 SHC			
Devices. ***Select one.***						
ELN	131	Semiconductor Applications	4 SHC			
ELN	137	Electr Devices & Circuits	5 SHC			
Programming Language. ***Select one:***						
CET	161	Procedural Programming	3 SHC			
CSC	133	C Programming	3 SHC			
CSC	134	C++ Programming	3 SHC			
CSC	136	Fortran Programming	3 SHC			
CSC	139	Visual BASIC Prog	3 SHC			
CSC	143	Object-Oriented Prog	3 SHC			
CSC	151	JAVA Programming	3 SHC			
B. CONCENTRATION *(Not applicable)*						

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C. OTHER MAJOR HOURS *To be selected from the following prefixes:* ATR,BIO, BMT, CET, CHM, CIS, COE, CSC, CTS, DBA, DEA, DFT, EGR, ELC, ELN, HYD, ISC, LEO, MAT, MEC, NET, NOS, OMT, PCI, PHY, SEC, SGD, TNE, and WEB *Foreign language courses (including ASL) that are not designated as approved other major hours may be included in all programs up to a maximum of 3 semester hours of credit.*			