COMPUTER ENGINEERING TECHNICIAN

Computer Engineering Technology (A40160)

ENGINEERING AND TECHNOLOGY PATHWAYS

These curriculums are designed to prepare students through the study and application of principles from mathematics, natural sciences, and technology and applied processes based on these subject areas.

Course work includes mathematics, natural sciences, and engineering sciences and technology.

Graduates should qualify to obtain occupations such as technical service providers, materials and technologies testing services, process improvement technicians, engineering technicians, construction technicians and mangers, industrial and technology managers, or research technicians.

PROGRAM DESCRIPTION

A course of study that prepares the students to use basic engineering principles and technical skills for installing, servicing, and maintaining computers, peripherals, networks, and microprocessor and computer controlled equipment. Includes instruction in mathematics, computer electronics and programming, prototype development and testing, systems installation and testing, solid state and microminiature circuitry, peripheral equipment, and report preparation. Graduates should qualify for employment opportunities in electronics technology, computer service, computer networks, server maintenance, programming, and other areas requiring knowledge of electronic and computer systems. Graduates may also qualify for certification in electronics, computers, or networks.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

				Class	Lab	Work/ Clinical	Credit
A. General Education Courses							
1. Required Courses							
	ENG	111	Writing and Inquiry	3	0	0	3
	COM	231	Public Speaking	3	0	0	3
	or						
	ENG	112	Writing/Research in the Disciplines	3	0	0	3
	MAT	171	Precalculus Algebra	3	2	0	4
			Humanities/Fine Arts Elective*	3	0	0	3
			Social/Behavioral Sciences Elective*	3	0	0	3
B. Major Courses							
1. Core Courses							

To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.

CSC	153	C# Programming	2	3	0	3
CTS	120	Hardware/Software Support	2	3	0	3
CTS	220	Advanced Hard/Software Support	2	3	0	3
ELC	131	Circuit Analysis I	3	3	0	4
ELN	131	Analog Electronics I	3	3	0	4
ELN	133	Digital Electronics	3	3	0	4
ELN	232	Introduction to Microprocessors	3	3	0	4
C. Other Major Courses						
ATR	112	Intro to Automation	2	3	0	3
CIS	115	Introduction to Programming & Logic	2	3	0	3
DFT	151	CAD I	2	3	0	3
EGR	285	Design Project	0	4	0	2
or						
WBL	111	Work-Based Learning I	0	0	10	1
and						
WBL	115	Work-Based Learning Seminar I	1	0	0	1
ELN	260	Prog Logic Controllers	3	3	0	4
MAT	172	Precalculus Trigonometry	3	2	0	4
NET	125	Introduction to Networks	1	4	0	3
NOS	120	Linux/Unix Single User	2	2	0	3
D. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1
		Total Credit Hours				**67**

*Approved Electives are listed on the page before the Course Descriptions.

SEMESTER SCHEDULE
COMPUTER ENGINEERING TECHNOLOGY (DAY)

			Class	Lab	Work/ Clinical	Credit
		First Year – Fall Semester				
ACA	122	College Transfer Success	0	2	0	1
CIS	115	Introduction to Programming & Logic	2	3	0	3
CTS	120	Hardware/Software Support	2	3	0	3
ELC	131	Circuit Analysis I	3	3	0	4
ENG	111	Writing and Inquiry	3	0	0	3
MAT	171	Precalculus Algebra	3	2	0	4
			13	13	0	18
		First Year – Spring Semester				
CTS	220	Advanced Hard/Software Support	2	3	0	3
COM	231	Public Speaking	3	0	0	3

or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
ELN	131	Analog Electronics I	3	3	0	4
ELN	133	Digital Electronics	3	3	0	4
MAT	172	Precalculus Trigonometry	3	2	0	4
			14	11	0	18
		Second Year – Fall Semester				
DFT	151	CAD I	2	3	0	3
ELN	232	Introduction to Microprocessors	3	3	0	4
ELN	260	Prog Logic Controllers	3	3	0	4
NOS	120	Linux/Unix Single User	2	2	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			13	11	0	17
		Second Year – Spring Semester				
ATR	112	Intro to Automation	2	3	0	3
CSC	153	C# Programming	2	3	0	3
EGR	285	Design Project	0	4	0	2
or						
WBL	111	Work-Based Learning I	0	0	10	1
and						
WBL	115	Work-Based Learning Seminar I	1	0	0	1
NET	125	Introduction to Networks	1	4	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
			8-9	14	0-10	14

Total Credit Hours **67**

*Approved Electives are listed on the page before the Course Descriptions.

COMPUTER ENGINEERING TECHNOLOGY (CERTIFICATE) (C40160)
COURSE REQUIREMENTS

			Class	Lab	Work/ Clinical	Credit
CIS	115	Introduction to Programming & Logic	2	3	0	3
CTS	120	Hardware/Software Support	2	3	0	3
ELC	131	Circuit Analysis I	3	3	0	4
ELN	131	Analog Electronics I	3	3	0	4
ELN	133	Digital Electronics	3	3	0	4

Total Credit Hours **18**