

TECHNICAL & VOCATIONAL PROGRAMS

Computer Engineering Technology A 40 16 0 Associate in Applied Science

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. Course work includes mathematics, physics, 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.

General Education Courses

<i>Communications</i>	<i>[prerequisite]</i>	<i>Seq</i>	<i>Class</i>	<i>Lab</i>	<i>Credits</i>
ENG 111 Expository Writing	[ENG 090/RED 090]	F1	3	0	3
ENG 111A Expository Writing Lab	[Coreq. - ENG 111]	F1	0	1	1
<i>Choose one of the following:</i>					
ENG 112 Argument Based Research	[ENG 111]	S1	3	0	3
or					
ENG 113 Literature Based Research	[ENG 111]	S1	3	0	3
or					
ENG 114 Professional Research & Reporting	[ENG 111]	S1	3	0	3
<i>Choose one of the following:</i>					
COM 110 Introduction to Communications	[ENG 090/RED 090]	F1	3	0	3
or					
COM 120 Interpersonal Communication	[ENG 090/RED 090]	F1	3	0	3
or					
COM 231 Public Speaking	[ENG 111]	F1	3	0	3
<i>Natural Science/Mathematics</i>	<i>[prerequisite]</i>	<i>Seq</i>	<i>Class</i>	<i>Lab</i>	<i>Credits</i>
MAT 161 College Algebra I	[MAT 080/MAT 090]	F1	3	0	3
MAT 162 College Trigonometry	[MAT 161]	S1	3	0	3
<i>Social/Behavioral Science:</i>	<i>[prerequisite]</i>	<i>Seq</i>	<i>Class</i>	<i>Lab</i>	<i>Credits</i>
(Choose 3 semester credit hours of approved courses from the CAA Course List)					
_____	[Varies]	S2	3	0	3
<i>Humanities/Fine Arts:</i>	<i>[prerequisite]</i>	<i>Seq</i>	<i>Class</i>	<i>Lab</i>	<i>Credits</i>
(Choose 3 semester credit hours of approved courses from the CAA Course List. Humanities elective cannot be elementary foreign language course or COM course.)					
_____	[Varies]	F2	3	0	3

Major Courses: Core

<i>Core courses</i>	<i>[prerequisite]</i>	<i>Seq</i>	<i>Class</i>	<i>Lab</i>	<i>Credits</i>
CIS 110 Introduction to Computers	[ENG 090/RED 090/MAT 070]	F1	2	2	3
or CIS 111 Basic PC Literacy	[None]		1	2	2
NOS 110 Operating Systems	[CIS 110 or CIS 111]	S1	2	3	3
CET 111 Computer Upgrade/Repair I	[CIS 110 or CIS 111 or Equivalent]	S2	2	3	3
ELN 133 Digital Electronics	[EGR 131]	S1	3	3	4
ELC 131 DC/AC Circuit Analysis	[MAT 080 or MAT 090] [Coreq. - MAT 161]	F1	4	3	5
ELN 137 Electric Devices & Circuits	[ELC 131]	S1	4	3	5
CSC 134 C++ Programming	[CIS 110 or CIS 111]	F2	2	3	3
or CSC 139 Visual BASIC Programming	[Coreq. - CIS 110 or CIS 111]		2	3	3

Other Required Hours

<i>Courses</i>	<i>[prerequisite]</i>	<i>Seq</i>	<i>Class</i>	<i>Lab</i>	<i>Credits</i>
COE 110 World of Work		F1	1	0	1
EGR 131 Intro to Electronics Technology	[None]	F1	2	1	2
CET 121 Assembly Programming	[CIS 110 or CIS 111][Coreq.- CIS 115 or ELN 133]	S1	2	3	3
ELN 232 Intro to Microprocessors	[ELN 133]	F2	3	3	4
ELN 233 Microprocessor Systems	[ELN 232]	F2	3	3	4
ELN 275 Troubleshooting	[EGR 131]	F2	1	3	2
CET 211 Computer Upgrade and Repair II	[CET 111]	S2	2	3	3
EGR 285 Design Project	[ELN 233/ELN 275]	S2	0	4	2
or COE Co-op	[min. GPA 2.0 & 9 hrs in major]		Varies	Varies	2
ELN 235 Data Communications Systems	[ELN 232/ELN 275]	S2	3	3	4
CET Elective	[Varies]	F2	Varies	Varies	2-3

*CET Electives. Choose from the following:

<i>Courses:</i>	<i>[prerequisite]</i>	<i>Class</i>	<i>Lab</i>	<i>Credits</i>
COE 112 Cooperative Education	[min GPA 2.0, 9 hrs in major]	Varies	Varies	2
CSC 134 Advanced C++	[CSC 134]	2	3	3
CSC 239 Advanced Visual Basic	[CSC 139]	2	3	3
NET 115 Telecom Fundamentals		1	2	2
NOS 120 Linux/Unix Single User	[NOS 110]	2	2	3
NOS 130 Windows Single User	[NOS 110]	2	2	3

Total Semester Hours Required for Associate Degree: **74-76**

The following list course requirements for certificate programs. Please note that courses listed are not order based on semester.

Computer Engineering Technology

C 40 16 0 Certificate

<i>Courses:</i>	<i>[prerequisite]</i>	<i>Class</i>	<i>Lab</i>	<i>Credits</i>
CIS 110 Introduction to Computers or CIS 111 PC Literacy	[ENG 090/RED 090/MAT 070] [None]	2 1	2 2	3 2
EGR 131 Intro. to Electronics Tech.	[None]	1	2	2
CET 111 Comp Upgrade/Rpr I (8wk)	[CIS 110 or CIS 111 or Equivalent]	2	3	3
CET 211 Comp Upgrade/Rpr II (8wk)	[CET 111]	2	3	3
NOS 110 Operating Systems Concepts or NET 115 Telecommunications	[CIS 110 or CIS 111]	2 1	3 2	3 2

Total Semester Hours Required for Certificate: **12-14**



College of The Albemarle

Associate in Applied Science
 Computer Engineering Technology (A 40 16 0)
 Graduation Check Sheet – 2009-2011 Catalog

Listed below are the requirements for your degree program. It is your responsibility to keep this sheet up-to-date and review it with your advisor to know what you need to graduate. Complete the Graduation Application one semester prior to the intended date of graduation.

Title	Sequence	Credit	Grade	Semester
I. GENERAL EDUCATION COURSES				
Communications				
ENG 111 Expository Writing [P=ENG090/RED090, C=ENG111A]	F1	3	_____	_____
ENG 111A Expository Writing Lab [C=ENG111]	F1	1	_____	_____
ENG 112 Argument Based Research [P=ENG111]				
-or-				
ENG 113 Literature Based Research [P=ENG111]	S1	3	_____	_____
-or-				
ENG 114 [P=ENG111]				
COM 110 Introduction to Communications [P=ENG090/RED090]				
-or-				
COM 120 Interpersonal Communication [P=ENG090/RED090]	F1	3	_____	_____
-or-				
COM 231 Public Speaking [P=ENG111]				
Natural Science/Mathematics:				
MAT161 College Algebra I [MAT080 or MAT090]	F1	3	_____	_____
MAT162 College Trigonometry [MAT161]	S1	3	_____	_____
Social/Behavioral Science: (Choose 3 semester credit hours of approved courses from the CAA course List)				
_____ [P=Varies]	S2	3	_____	_____
Humanities/Fine Arts: (Choose 3 semester credit hours of approved courses from the CAA course List. Humanities elective cannot be foreign language course or COM class.)				
_____ [P=Varies]	F2	3	_____	_____
II. MAJOR COURSES:				
A. CORE				
CIS 110 Introduction to Computers [P=ENG090, RED090, MAT070] or CIS 111 Basic PC Literacy	F1	2-3	_____	_____
NOS 110 Operating Systems [P=CIS110 or CIS111]	S1	3	_____	_____
CET 111 Computer Upgrade/Repair I [P=CIS110 or CIS111 or equivalent]	S2	3	_____	_____
ELN 133 Digital Electronics [P=EGR131]	S1	4	_____	_____
ELC 131 DC/AC Circuit Analysis [P=MAT080 or MAT090]	F1	5	_____	_____
ELN 137 Electr Devices & Circuits [P=ELC131]	S1	5	_____	_____

CSC 134 C++ Programming [P=CIS110 or CIS111]	F2	3	_____	_____
Or CSC 139 Visual BASIC Programming [P=CIS110 or CIS111]				

C. OTHER MAJOR HOURS

COE 110 World of Work	F1	1	_____	_____
EGR131 Intro to Electronics Technology	F1	2	_____	_____
CET121 Assembly Programming [P=CIS110 or CIS111 C=CIS115 or ELN133]	S1	3	_____	_____
ELN232 Intro to Microprocessors [P=ELN133]	F2	4	_____	_____
ELN233 Microprocessor Systems [P=ELN233]	F2	4	_____	_____
ELN275 Troubleshooting [P=EGR131]	F2	2	_____	_____
CET211 Computer Upgrade and Repair II [P=CET111]	S2	3	_____	_____
EGR285 Design Project [P=ELN23, ELN275] or COE Coop	S2	2	_____	_____
ELN235 Data Communications Systems [P=ELN232,ELN275]	S2	4	_____	_____
CET Elective*	F2	2-3	_____	_____

* **Computer Engineering Electives.** Choose from the following:
 COE112: Cooperative Education [P=min GPA 2.0, 9 hrs in major] (2 hrs)
 CSC 134: Advanced C++ [P=CSC134] (3 hrs)
 CSC239: Advanced Visual Basic [P=CSC139] (3 hrs)
 NET115: Telecom Fundamentals (2 hrs)
 NOS120: OS: Linux/Unix Single User [P=NOS110] (3 hrs)
 NOS130: OS: Windows Single User [P=NOS110] (3 hrs)

Total Semester Hours Required for Degree 74-76



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Title	Sequence	Credit	Grade	Semester
CIS 110 Introduction to Computers [P=ENG090, RED090, MAT070] or CIS 111 Basic PC Literacy	F1	2-3	_____	_____
NOS 110 Operating Systems [P=CIS110 or CIS111] Or NET 115 Telecommunications	S1	2-3	_____	_____
CET 111 Computer Upgrade/Repair I [P=CIS110 or CIS111 or equivalent]	S1	3	_____	_____
EGR131 Intro to Electronics Technology	F1	2	_____	_____
CET211 Computer Upgrade and Repair II [P=CET111]	Varies	3	_____	_____
Total Semester Hours for Certificate		12-14		