



NORTH CAROLINA COMMUNITY COLLEGE SYSTEM
H. Martin Lancaster, President

January 16, 2007

RESPONSE DEADLINE: January 31, 2007

MEMORANDUM

TO: Select Chief Academic Officers

FROM: Delores A. Parker, Vice President
Academic and Student Services

SUBJECT: Requested Revision in Computer Engineering Technology (A40160)

The Curriculum Review Committee has completed its review of the courses from the Electrical-Related Curriculum Improvement Project (CIP). Based on those actions, the attached curriculum standard differs from that originally presented to you in numbered memo CC06-148.

Computer Engineering Technology (A40160)

Attached is a form for indicating your approval or disapproval of the proposed change. ***Please complete and return the form to Edith Lang by January 31, 2007.*** You may fax your response to 919-807-7164. Once the responses have been received at the System Office, the request will be presented to the State Board of Community Colleges.

Thank you for your prompt attention to this matter. If you have questions, please contact Edith Lang at 919-807-7119 or lange@nccommunitycolleges.edu.

DAP/el
Attachments
c: Select Presidents
Judith Mann
Edith Lang

S07-002
Email

College Response Form
Electronic CIP Project
Proposed Curriculum Standard
Computer Engineering Technology ((A40160))

Curriculum standard as proposed by CIP revised to reflect CRC action on CIP courses.

_____ We have reviewed the proposed revision and **recommend** adoption of the proposed curriculum standard.

_____ We have reviewed the proposed revision and **do not recommend** adoption of the proposed curriculum standard for the following reason(s):

College: _____

President's Signature; _____ Date: _____

Please return this form by **January 31, 2007**:

Edith Lang, Director
Program Services
NC Community College System
5016 Mail Service Center
Raleigh, NC 27699-5016
Fax: 919-807-7164

CURRICULUM STANDARD

Effective Term
Fall 2007
[2007*03]

Curriculum Program
Title
Concentration

Computer Engineering Technology

Code

A40160

(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, 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.

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 a degree or diploma program up to a maximum of 8 semester hours and in a certificate program up to a maximum of 2 semester hours. (*see back of page for Major Hours requirements*)
- III. Other Required Hours.** A college may require other subjects or courses to complete graduation requirements. These requirements may include electives, orientation, study skills courses, or other graduation requirements.

PROPOSED

	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

**Approved by the State Board of Community Colleges on November 13, 1996; SBCC
Revised 05/17/02; Revised 02/07/03; Revised 05/14/04;
CRC Revised 06/13/05; Revised 02/15/06; Revised 05/15/06; Revised 05/25/06; SBCC
Revised _____.**

PROPOSED

Major Hours

<p>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.</p> <p>B. Concentration (<i>if applicable</i>). 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.</p> <p>C. Other Major Hours. Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours 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 degree and diploma curriculum programs up to a maximum of 8 semester hours credit and in certificate programs up to a maximum of 2 semester hours credit.</p>			
Computer Engineering Technology A40160			
	AAS	Diploma	Certificate
Minimum Major Hours Required	49 SHC	30 SHC	12 SHC
<p>A. CORE</p> <p>Required Courses: CET 111 Computer Upgrade/Repair I 3 SHC ELN 133 Digital Electronics 4 SHC</p> <p>Required Subject Areas: DC/AC. Select 5-6 SHC. ELC 131 DC/AC Circuit Analysis 5 SHC <i>or</i> ELC 138 DC Circuit Analysis 3 SHC <i>and</i> ELC 139 AC Circuit Analysis 3 SHC</p> <p>Devices. Select one. ELN 131 Semiconductor Applications 4 SHC ELN 137 Electr Devices & Circuits 5 SHC</p> <p>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</p>	19-21 SHC	NR	

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 Revised 05/17/02; Revised 02/07/03; Revised 05/14/04;**

**CRC Revised 06/13/05; Revised 02/15/06; Revised 05/15/06; Revised 05/25/06; SBCC
 Revised _____.**

PROPOSED

<p>B. CONCENTRATION <i>(Not applicable)</i></p>			
<p>C. OTHER MAJOR HOURS <i>To be selected from the following prefixes:</i> 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, **SPA, TNE, and WEB <i>** This prefix is limited to a maximum of 3 SHC</i></p>			

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 CRC Revised 06/13/05; Revised 02/15/06; Revised 05/15/06; Revised 05/25/06; SBCC
 Revised _____.**