



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 Electrical/Electronics Technology (A35220)

The Curriculum Review Committee has completed its review of the courses from the Electrical-Related Curriculum Improvement Project (CIP). The attached curriculum standard is now available for your consideration:

Electrical/Electronics Technology (A35220)

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

S07-001
Email

College Response Form
Electronic CIP Project
Proposed Curriculum Standard
Electrical/Electronics Technology (A35220)

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

PROPOSED

CURRICULUM STANDARD

*Effective Term
Fall 2007
[2007*03]*

Curriculum Program
Title
Concentration

Electrical/Electronics Technology

Code

A35220

(not applicable)

Curriculum Description

The Electrical/Electronics Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical/electronic systems found in residential, commercial, and industrial facilities.

Training, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, electronics, programmable logic controllers, industrial motor controls, applications of the National Electric Code, and other subjects as local needs require.

Graduates should qualify for a variety of jobs in the electrical/electronics field as an on-the-job trainee or apprentice assisting in the layout, installation, and maintenance of electrical/electronic systems.

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.

	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

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 (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.</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>			
Electrical/Electronics Technology A35220			
	AAS	Diploma	Certificate
Minimum Major Hours Required	49 SHC	30 SHC	12 SHC
<p>A. CORE <i>Courses required for the diploma are designated with *</i></p> <p>Required Subject Areas:</p> <p>* Wiring. Select one: ELC 113 Basic Wiring I 4 SHC ELC 115 Industrial Wiring 4 SHC</p> <p>*Motor Controls. Select one: ELC 117 Motors and Controls 4 SHC ELN 231 Industrial Controls 3 SHC</p> <p>*DC/AC. Select 5-6 SHC: ELC 112 DC/AC Electricity 5 SHC <i>or</i> 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>Electronics. Select one: ELN 131 Semiconductor Applications 4 SHC ELN 137 Electr Devices & Circuits 5 SHC ELN 229 Industrial Electronics 4 SHC</p> <p>Automated Controls. Select one: ELC 128 Introduction to PLC 3 SHC ELN 260 Prog Logic Controls 4 SHC</p>	19-23 SHC	12-14 SHC	
B. CONCENTRATION <i>(Not applicable)</i>			
<p>C. OTHER MAJOR HOURS <i>To be selected from the following prefixes:</i></p> <p>AHR, ATR, BIO, BPR, BUS, CET, CHM, CIS, COE, CST, DFT, EGR, ELC, ELN, HYD, ISC, MAT, MEC, MNT, NET, OMT, PCI, PHY, PLA, **SPA, WLD, and WOL</p> <p>** This prefix is limited to a maximum of 3 SHC</p>			

Curriculum Program
Title
Concentration

Electrical/Electronics Technology

Code

A35220

(not applicable)

Curriculum Description

The Electrical/Electronics Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical/electronic systems found in residential, commercial, and industrial facilities.

Training, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, digital electronics, programmable logic controllers, industrial motor controls, the National Electric Code, and other subjects as local needs require.

Graduates should qualify for a variety of jobs in the electrical/electronics field as an on-the-job trainee or apprentice assisting in the layout, installation, and maintenance of electrical/electronic systems.

Curriculum Requirements*

- II. 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.

	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

CURRENT

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 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.

Electrical/Electronics Technology A35220

	AAS	Diploma	Certificate
Minimum Major Hours Required	49 SHC	30 SHC	12 SHC
A. CORE <i>Courses required for the diploma are designated with *</i> Required Courses: * ELC 112 DC/AC Electricity 5 SHC * ELC 113 Basic Wiring I 4 SHC * ELC 117 Motors and Controls 4 SHC ELC 128 Introduction to PLC 3 SHC Required Subject Areas: * WIRING. Select one: ELC 114 Basic Wiring II 4 SHC ELC 115 Industrial Wiring 4 SHC ELECTRONICS. Select one: ELN 131 Electronic Devices 4 SHC ELN 229 Industrial Electronics 4 SHC DIGITAL ELECTRONICS. Select one. ELN 133 Digital Electronics 4 SHC ELN 141 Digital Fundamentals 6 SHC	28-30 SHC	17 SHC	
B. CONCENTRATION <i>(Not applicable)</i>			
C. OTHER MAJOR HOURS <i>To be selected from the following prefixes:</i> ATR, BPR, BUS, CIS, COE, CST, DFT, EGR, ELC, ELN, HYD, ISC, MEC, OMT, PCI, PHY, **SPA and WOL ** This prefix is limited to a maximum of 3 SHC			