

# CURRICULUM STANDARD

Effective Term  
Spring 2007  
[2007\*01]

Curriculum Program Title

**Electrical Power Production Technology**

Code

**A50130**

Concentration

**(not applicable)**

## *Curriculum Description*

The Electric Power Production Technology curriculum is designed to provide students with the skills and technical background required for entry-level employment in the operation of modern non-nuclear fueled power facilities.

Students will study major plant systems needed for the reliable operation of power plants, including but not limited to, boilers, combustion equipment, steam/gas turbines, generators, controls logic, fundamentals of operation, equipment maintenance, environmental control equipment, and associated governmental regulations.

Upon successful completion of this program, graduates should qualify for entry-level employment in the electric utility industry, industrial power facilities, and other power-production occupations.

## *Curriculum Requirements\**

*[for associate degree, diploma, and certificate programs in accordance with 23 NCAC 02E.0204 (3)]*

- 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.

	<b>AAS</b>	<b>Diploma</b>	<b>Certificate</b>
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	12
Other Required Hours	0-7	0-4	0-1
<b>Total Semester Hours Credit (SHC)</b>	<b>64-76</b>	<b>36-48</b>	<b>12-18</b>

*\*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*

[ref. 23 NCAC 02E.0204 (3)]

- 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.

### Electrical Power Production Technology A50130

	AAS	Diploma	Certificate
<b>Minimum Major Hours Required</b>	<b>49 SHC</b>	<b>30 SHC</b>	<b>12 SHC</b>
<b>A. CORE</b>  <b>Required Courses:</b> BPR 115 Elc/Fluid Power Diagrams 2 SHC ELC 112 DC/AC Electricity 5 SHC EPP 110 Intro to Power Plant Oper 2 SHC EPP 112 Fuels and Combustion 3 SHC EPP 210 Power Plant Systems 3 SHC EPP 212 Steam & Combustion TG 3 SHC EPP 214 Power Plant Environ Mgt 2 SHC ISC 112 Industrial Safety 2 SHC WAT 120 Intro to Water Treatment 2 SHC	<b>24 SHC</b>		
<b>B. CONCENTRATION</b> (Not applicable)			
<b>C. OTHER MAJOR HOURS</b> <i>To be selected from the following prefixes:</i>  BPR, CIS, COE, CSC, DFT, EGR, ELC, ELN, EPP, HYD, ISC, MNT, PCI, PHY, and WAT  <i>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.</i>			