Student ID:_____
Student Name:_____
Adviser Name:_____

Catalog: 2015-2016 Catalog
Program: Electrical Engineering Technology - Electrical Engineering Technology Concentration, A.A.S.
Minimum Credits Required:_____

Electrical Engineering Technology - Electrical Engineering Technology Concentration, A.A.S.

Electrical Engineering Technology

Associate of Applied Science (A.A.S.)
Contact Information: Program Office 615-353-3475, electric.tech@nscc.edu, Program Site

The Electrical Engineering Technology A.A.S. degree is accredited by the Association of Technology, Management, and Applied Engineering (ATMAE) including Automated Control Systems, Electrical, and Electronic concentrations.

The Electrical Engineering Technology program is a comprehensive program with various options. This program offers three concentrations: Electrical Engineering Technology, Electronic Engineering Technology, and Automated Control Systems (offered only at the Cookeville campus). See information below for specifics for each option.

Transfer/Advising

The A.A.S. degree is designed to prepare a student for employment upon graduation. Some universities, at their discretion, accept some technical courses for transfer. A student who plans to transfer to a university should consult his/her advisor and the receiving university about transfer and articulation policies. Failure to do so could result in loss of transfer credits.

Degree Requirement

Students earning the A.A.S. degree in Electrical Engineering Technology must complete a minimum of 12 semester hours of technical course work at Nashville State.

Electrical Engineering Technology Concentration

Associate of Applied Science (A.A.S.)

The Electrical Engineering Technology concentration emphasizes both theory and practical applications in applied electrical engineering technology. Graduates have a diversified understanding of modern methods and insight in comprehending new and future developments. Applied mathematics, science, and liberal arts courses support comprehensive electrical technology studies. Laboratory experiments coordinate with classroom theory to provide practical hands-on learning. Students analyze industrial, commercial, and utility electrical power systems and study electrical and automated control systems with application to processing and manufacturing industries.

Graduates are typically employed as electrical engineering technicians - working with engineering teams; planning, specifying, purchasing, installing, testing, operating, and maintaining electrical systems, equipment, and controls in such important activities as: industrial plant engineering; manufacturing methods and quality assurance; automatic control of complex industrial processes; electrical facilities in building construction; operation and maintenance of electrical and associated equipment; electrical design and specifications and drawing development in professional consulting engineering activities; and electrical power company systems and equipment.

Program Outcomes

- Demonstrate the knowledge and ability to apply circuit analysis and design, computer technology, analog and digital electronics, and electrical and electronic principles to install, test, and maintain systems;
- Demonstrate the ability to effectively communicate using oral, written, and graphical skills;
- Function on teams demonstrating leadership, individual ability, and team skills;
- Exhibit a commitment to quality and dependability; and
- Differentiate, analyze, and construct DC and AC circuits.

Concentration Outcomes

- Examine and demonstrate the application of discrete devices, digital, and analog circuits;
- Understand and apply proper techniques for analyzing and producing drawings;
- Create original and modify existing PLC programs;
- Assemble and wire transformers and rotating machinery; and
- Demonstrate knowledge of industrial electrical hardware, codes, and various electrical/electronic systems.

Career Opportunities

- Electrical Engineering Technician
- Electrical Power Companies
- Maintenance of electrical systems and equipment
- Industrial Process Control

Course Requirements

General Education

Course Name	Credits	Term Taken	Grade	Gen Ed
ECON 2010 - Macroeconomics*	3 Credits			
ENGL 1010 - English Composition I*	3 Credits			
Humanities/Fine Arts Elective 3 Credits				
MATH 1630 - Finite Mathematics*	3 Credits			
PSCI 1030 - Survey of Physical Science*	4 Credits			
SPCH 1010 - Fundamentals of Speech Comm*	3 Credits			
OR				
SPCH 1112 - Speech*	3 Credits			

Other Technologies

Course Name	Credits	Term Taken	Grade	Gen Ed
CAD 1200 - Computer-Aided Drafting I	3 Credits			
CPT 2425 - UNIX/Linux	4 Credits			
ENGT 1000 - Intro to Engr Technology	3 Credits			

Electrical Engineering Technology

Course Name	Credits	Term Taken	Grade	Gen Ed
EETH 1110 - Electric Circuits	4 Credits			
EETH 1115 - Electric Circuits Lab	1 Credit			
EETH 1210 - Electronic Circuits	4 Credits			
EETH 1215 - Electronic Circuits Lab	1 Credit			
EETH 1220 - Transformers/Rotating Machines	2 Credits			
EETH 1225 - Transformers/Rotat. Mach. Lab	1 Credit			
EETH 1400 - Digital Electronics	2 Credits			
EETH 1405 - Digital Electronics Lab	1 Credit			
EETH 2010 - Industrial Electronic Controls	3 Credits			
EETH 2015 - Industrial Elec. Controls Lab	1 Credit			
EETH 2240 - Instrumentation	2 Credits			
EETH 2245 - Instrumentation Lab	1 Credit			
EETH 2600 - Automatic Control Systems	4 Credits			
EETH 2640 - Electrical Code	4 Credits			
EETH 2800 - Electrical Capstone Course	1 Credit			

Technical Electives (3 credits required)

Course Name	Credits	Term Taken	Grade	Gen Ed
Co-operative Education 1-3 Credits				
EETH 2250 - Fiber Optics & Cabling	3 Credits			
EETH 2255 - Fiber Optics & Cabling Lab	1 Credit			
EETH 2410 - Hydraulics and Pneumatics	4 Credits			
ENGT 1150 - Technical Graphics	3 Credits			

Total Required – Associate's Degree: 64 Credits

Recommended Full-Time Schedule

First Year

Fall Semester

Course Name	Credits	Term Taken	Grade	Gen Ed
EETH 1110 - Electric Circuits	4 Credits			
EETH 1115 - Electric Circuits Lab	1 Credit			
ENGL 1010 - English Composition I*	3 Credits			
ENGT 1000 - Intro to Engr Technology	3 Credits			
MATH 1630 - Finite Mathematics*	3 Credits			

Spring Semester

Course Name	Credits	Term Taken	Grade	Gen Ed
CAD 1200 - Computer-Aided Drafting I	3 Credits			
EETH 1210 - Electronic Circuits	4 Credits			
EETH 1215 - Electronic Circuits Lab	1 Credit			
EETH 1400 - Digital Electronics	2 Credits			
EETH 1405 - Digital Electronics Lab	1 Credit			
Humanities/Fine Arts Elective 3 Credits				
SPCH 1010 - Fundamentals of Speech Comm*	3 Credits			
OR				
SPCH 1112 - Speech*	3 Credits			

Second Year

Fall Semester

Course Name	Credits	Term Taken	Grade	Gen Ed
CPT 2425 - UNIX/Linux	4 Credits			
ECON 2010 - Macroeconomics*	3 Credits			
EETH 1220 - Transformers/Rotating Machines	2 Credits			
EETH 1225 - Transformers/Rotat. Mach. Lab	1 Credit			
EETH 2010 - Industrial Electronic Controls	3 Credits			
EETH 2015 - Industrial Elec. Controls Lab	1 Credit			
EETH 2240 - Instrumentation	2 Credits			
EETH 2245 - Instrumentation Lab	1 Credit			

Spring Semester

Course Name	Credits	Term Taken	Grade	Gen Ed
EETH 2600 - Automatic Control Systems	4 Credits			
EETH 2640 - Electrical Code	4 Credits			
EETH 2800 - Electrical Capstone Course	1 Credit			
PSCI 1030 - Survey of Physical Science*	4 Credits			
Technical Elective 3 Credits				

Note:

Additional course requirements: The Tennessee Board of Regents requires that students either demonstrate the appropriate skill levels in math, reading, and/or writing before enrolling in college-level courses or enroll in appropriate co-requisite experiences with college-level courses to develop competency in those skills while performing college-level work. ACT/SAT scores, COMPASS test scores, or other relevant information determine whether a student needs to enroll in co-requisite courses in math, reading, and/or writing (English).

Cooperative work experience can be an important addition to a student's formal classroom work. Co-op courses may substitute for technical courses with the prior approval of the instructor. The Career Services Office will provide the correct course numbers.

* This course is part of the general education core.

Notes: