ELECTRICIAN TECHNICIAN

Overview

Degrees Offered: AAS
Limited Enrollment: Yes
Program Begins: Fall
Delivery Method: On Campus
Phone: 701-224-5651
Email: bsc.energy@bismarckstate.edu

Description

The Electrician Technician program at Bismarck State College prepares students for a career as a residential, commercial or industrial technician. Students receive a hands-on education, learning the tasks and skills they'll need to be successful in the workforce. This will include: electrical safety, electrical theory, wiring methods, and proper operation of a multimeter. Students will learn to read and navigate the National Electrical Code as well as other rules and regulations supplementary to it.

In the second year of the program students are exposed to more advanced industrial equipment and concepts. This includes a familiarization with blue-prints, motor controls, PLCs, electrical services, low voltage applications, three phase systems and the National Electrical Code.

This two-year program is offered entirely on-campus. Upon completion of the program, students will seek employment in industry as apprentice electricians to continue working towards becoming journeyman electricians.

Preparation

Electricians need mechanical aptitude and the ability to solve problems intuitively. Some knowledge of electricity prior to entering the program is helpful. Students may also benefit from backgrounds in high school algebra, physics, and basic computer literacy, plus good reading and interpersonal skills.

Requirements

Students who complete the curriculum requirements receive an Associate of Applied Science degree in Electrician Technician.

Prospective students should be prepared to meet the physical requirements of work in this field. Fear of heights or color blindness may limit the graduate's employment opportunities. Many employers require entry-level applicants to pass a physical and drug test.

Program Pathways

Credits from the Electrician Technician Associate in Applied Science may stack into the following Bachelor of Applied Science degrees:

- Energy Management
- Operations Management

Special Costs

- Program Books: $500 per semester (Fall and Spring)
- Scientific Calculator
- Laptop Computer (PC and Windows operating system required)
  - All BSC courses use a Learning Management System (LMS) called Blackboard.

Total Tool Cost: $700 - $1,200

Career Opportunities

The Electrician Technician program prepares graduates who are well suited for careers as an apprentice electrician in either a residential, commercial, or industrial setting. Graduates may pursue careers as contractors installing, updating and repairing the electrical systems in residential and commercial structures. Graduates are also competent to work in industrial settings like power plants, refineries, manufacturing facilities, food processing facilities and any other similar work environment.

Degree Plans

- Electrician Technician Associate in Applied Science

BISMARCK STATE COLLEGE | North Dakota's Polytechnic Institution

Program Learning Outcomes

Upon graduation, Electrician Technician students will be able to:

- Describe the responsibilities of the electrician and the tools needed for the installation and repair of electrical equipment.
- Demonstrate comprehensive knowledge of electrical theory, safety protocols, and industry codes, including electrical circuits and systems, National Electric Code (NEC), safety procedures and regulations (OSHA), and electrical mathematics and calculations.
- Demonstrate hands-on skills in electrical installation, maintenance, and troubleshooting, including wiring and circuit installation, electrical panel, and device installation, troubleshooting and repair techniques, and electrical testing and measurement.