

# AUTOMOTIVE TECHNOLOGY

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## Overview

**Degrees Offered:** AAS, Diploma, Program Certificate

**Limited Enrollment:** Yes

**Program Begins:** Fall

**Delivery Method:** On Campus

**Phone:** 701-224-2429

**Email:** bsc.cet@bismarckstate.edu

## Description

The Automotive Technology program provides training in all eight Automotive Service Excellence (ASE) instructional areas and is Master Automobile Service Technology certified by the ASE Education Foundation. Certification is based on compliance with standards developed by the automotive industry. All BSC instructors have achieved Master ASE certification as experts in the field. Automotive Technology is a limited enrollment, two-year program that prepares graduates for entry-level jobs. Admission occurs in the Fall. Students are encouraged to apply early as openings are limited.

Students use classroom and hands-on knowledge to learn how to repair automotive, mechanical, and electrical systems. Using the latest diagnostic technology, students work on training vehicles to develop skills. Study units include electronics, fuel delivery systems, transmissions, clutches, ignition systems, braking and steering systems, transaxles, drive trains, heating/air conditioning diagnosis, and emission control systems.

## Preparation

Technicians need reading, mathematics, and computer skills to study technical manuals. Employers look for people with strong communication and analytical skills. Recommended high school courses include physics, chemistry, algebra, keyboarding, introduction to electricity, English, and business management. Prior automotive training is helpful. Continuing education after graduation is common to keep up with changes in technology and service procedures.

Awareness of these technical standards may help students determine suitability for this career.

- Must have the ability to perform accurate work in a timely fashion, communicate effectively with others, present information in a clear, concise manner, and follow verbal and written instructions.
- Requires good manual dexterity, good color vision and hearing, and ability to communicate.
- Requires continuous walking, frequent standing, bending, stooping, climbing stairs and ladders, kneeling, lifting and carrying up to 50 pounds, reaching above and below shoulder level, and occasional sitting, crawling, lifting 50 pounds from knee to shoulder high, pushing and pulling up to 25 pounds.
- Requires continuous use of tools and occasional use of foot controls.
- Continuously exposed to noise; frequently exposed to dirt, dust, fumes, chemicals, and extreme heat and cold, and occasionally exposed to vibration, poor ventilation, and confined areas.

## Requirements

Students who complete the curriculum requirements earn a Program Certificate, Diploma, or Associate in Applied Science degree.

The Automotive Technology Program Certificate is made up of two sections:

- Students receive an Electrical/Chassis Systems Certificate upon completion of Freshman Fall and Spring semesters.
- Students receive an Engine Performance/Air Conditioning Systems Certificate upon completion of Sophomore Fall and Spring semesters.

## Special Costs

Students must have a specified tool set, books, four-function pocket calculator, padlock and sturdy leather shoes. Toolboxes will be provided for student use through the Dean D. Gunsch Toolbox Program.

## Career Opportunities

BSC's Automotive Technology program is vital for those planning to work as auto technicians but also valuable for those interested in auto sales and service, parts manufacturing and sales, farming and ranching.

## Degree Plans

- Automotive Technology Associate in Applied Science
- Automotive Technology Diploma

- Automotive Technology Electrical/Chassis Systems Program Certificate - 1st Year
- Automotive Technology Engine Performance/Air Conditioning Program Certificate - 2nd Year

## **Program Learning Outcomes**

Upon graduation, Automotive Technology students will be able to:

- Comply with personal and environmental safety practices specific to the automotive industry.
- Perform diagnostics and repairs consistent with an entry-level automotive technician (in all 8 areas required by the ASE standards).
- Understand and communicate work to be performed using trade specific language.