



## Automotive Technician

Career and College Academy is a unique option for students to explore or begin a career path during high school, graduate with industry-recognized certifications and begin earning post-secondary credits and job training.

- Free college courses.
- Free transportation from high schools.
- In-demand skills.
- Enter a career or go to college.
- All classes at BCCA Hub at HTC Eden Prairie Campus

### Trimester 1

**CT3019A Automotive Technician 1, Periods 4-6**  
**Earn 2 HS STEM/elective credits, 1 Physics credit and 5 HTC credits.**  
**Prerequisite: Intro to Auto Mechanics or PLTW course.**

#### Bundle includes:

**Introduction to Transportation Trades (days 1-10).**  
 Students will learn about the trade, safety and shop operations, and will also get hands-on practice using common hand tools and shop equipment. This class is for students who are interested in the automotive industry or auto mechanics. Course is suitable for students with little or no mechanical or shop experience.

#### Electrical Systems 1 (days 11-35).

This course meets applicable National Automotive Technicians Education Foundation (NATEF) Standards. Students gain working knowledge of basic electrical theory in relation to the automotive field. Topics include: electronic service information, tools, Ohm's Law and use of digital multi-meter. Students inspect and test circuits, circuit breakers & their components.

Students learn wiring repair techniques, measure voltage, current and resistance; use wiring diagrams for reading & diagnosing electrical circuits; perform battery systems test; assemble & check basic electrical circuits; demonstrate proper use of a digital volt ohm meter; demonstrate safe service & repair practices, proper tool terminology, usage, safety & identification.

Course covers the characteristics of hazardous wastes and it's safe handling, storage and disposal.

#### Electrical Systems 2 Pt. 1 (days 36-54).

Part 1 of Electrical Systems 2, course will be completed in Trimester 2.

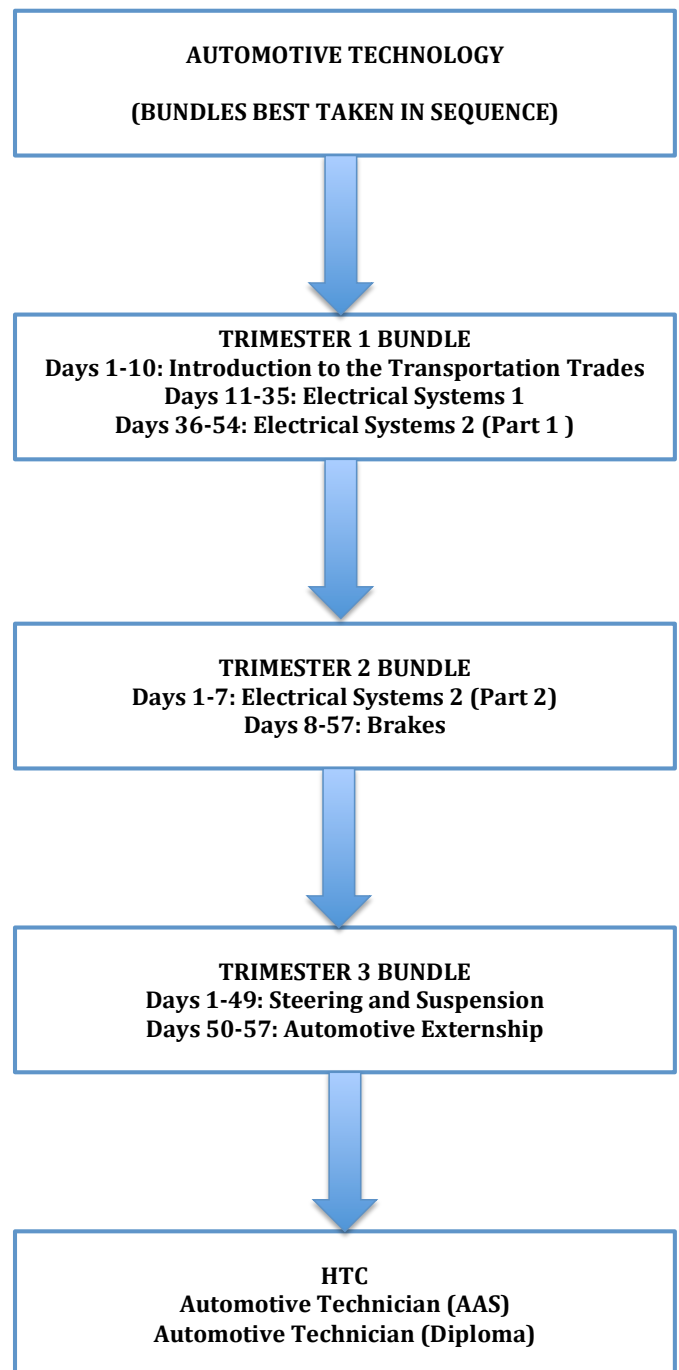
### Automotive Technician

Grades: 11 & 12.

Dual Enrollment/Concurrent credits at Hennepin Technical College

Value of 1 HTC credit = \$157

Business Partner: Walser Automotive Group



## Trimester 2

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### CT3019B Automotive Technician 2, Periods 4-6

Earn 3 HS STEM/elective credits, 1 Physics Credit and 7 HTC Credits.

Prerequisite: Automotive Technician 1

#### Bundle Includes:

##### Electrical Systems 2, Part 2 (days 1-7)

This course meets all applicable National Automotive Technicians Education Foundation (NATEF) standards. Students learn the operation of automotive starting and charging systems, including the diagnosis and repair of cranking motors, alternators, starter control, and charging system circuits.

##### Brakes (days 8-57)

This course meets all applicable National Automotive Technicians Education Foundation (NATEF) standards. Students learn the theory and operation of modern automotive braking systems, including all related components and how they work both individually and as part of the system. Students learn maintenance, repair & troubleshooting on front, rear, standard and Anti-Lock braking systems. Skills include: disassemble/reassemble both disc and drum brake assemblies; diagnosing brake systems, hydraulic brakes systems, power-assist brake units; perform master cylinder bench bleeding procedures, and drum and rotor machining; describe and diagnose anti-lock braking systems; learn wheel bearing operation, service and repair (sealed units/non sealed units).

## Trimester 3

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### CT3019C Automotive Technician 3, Periods 4-6

Earn 1 HS STEM/elective credits, 1 Physics credit and 4 HTC Credits.

Prerequisite: Automotive Technician 2

#### Bundle Includes:

##### Steering and Suspension (days 1-49).

This course meets all applicable National Automotive Technicians Education Foundation (NATEF) standards. Students learn the design, operation and repair of all types of steering and suspension components and systems, including conventional and McPherson strut suspensions, tire mounting, balancing and suspension alignment. Skills include: inspect and diagnose steering and suspension issues; remove and install components; alignment theory, operate alignment equipment and perform alignments; diagnose tire wear problems, understand tire pressure monitoring system theory, remove and repair tires.

##### 8926 Automotive Externship (days 50-57, 40 hours).

Students further develop skills and experiences in a formal work setting. Students will interview for and acquire their externship site with help from BCCA. A minimum of 120 hours of work experience is required throughout the year to receive credit.

## Degree Options

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Automotive Technician (Diploma)

Automotive Engineering (BS)

Automotive Technician (AAS)

## Career Options and Average Salaries

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Bus & Truck Mechanics: \$45,160

Tire Repairers and Changers: \$25,610

Automotive Service Technicians & Mechanics: \$39,980

Automotive and Watercraft Service Attendants: \$22,660

Parts Specialists: \$32,450

Diesel Engine Specialists: \$45,160

RV Service Technicians: \$37,030

Automotive Electronics Installers: \$32,920

Automotive Body Repairers: \$43,870

## To Learn More:

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#### Visit:

[www.bloomingtonschools.info/bcca](http://www.bloomingtonschools.info/bcca)

#### Contact:

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