



# AUTOMOTIVE TECHNOLOGY

## PROGRAM OVERVIEW



It takes more than the turn of a key to make a car go. Working on today's cars requires and understanding of the science and technology that goes into the modern automobile. The Automotive Technology program at Edison Career and Technology High School will introduce students to the history, evolution and systems of the automobile. Students will gain necessary experience needed to diagnose, maintain, and fix the many systems that

make up today's automobiles. Automotive Technology is continually changing due to advances in other technological fields. This course will help students understand how mechanical and electrical systems work through hands-on labs and projects. Knowledge in these automotive systems will prepare students for real life problem solving. This course uses a combination of older technology and the latest tools and equipment available for automotive diagnosis.



### **CAREER OPPORTUNITIES**

- Professional Mechanic
- Lube Technician
- Tire Technician
- Parts Counter Person
- Service Writer
- Motorcycle Technician
- Power Sports Technician
- Marine Technician
- Fleet Maintenance Technician



### **POST-SECONDARY EDUCATION OPPORTUNITIES**

- Monroe Community College
- Alfred State
- Morrisville State
- Universal Technical Institute
- Motorcycle Mechanics Institute
- Ohio Technical College
- University of Northwestern Ohio
- NASCAR Technical Institute
- WyoTech





## PROGRAMS OF STUDY

### FOUNDATIONAL COURSES

#### **CTE Foundations: Manufacturing**

9th Grade // 1 CTE Credit

Career Research and Exploration

Safety, Tools, and Materials

Basic Manufacturing and Metalworking

#### **Introduction to Integrated Technology**

10th Grade // 2 CTE Credits

Rotation of Experiences in Metalworking

Automotive Technology, Advanced

Manufacturing, Engineering and Optical Technology

### CAREER MAJOR COURSES

#### **Auto Tech I**

11th Grade // 2 CTE Credits

Wheel, Tire & Wheel Bearing Diagnosis and Repair

Steering and Suspension Repair

Disc Brake Systems

Drum Brake Systems

Antilock Braking Systems

Traction Control Systems

#### **Auto Tech II**

12th Grade // 2 CTE Credits

Electrical and Electronics

Schematic Reading

Accessory Installation and Operation

Engine Diagnostics

Engine Mechanical Testing

NYS Inspection



## EMPLOYABILITY PROFILE:

*The Proficient Automotive Technology Student will...*

- Demonstrate employability skills that will help them get a job and meet employer's professional expectations.
- Demonstrate academic knowledge and skills that meet postsecondary requirements.
- Consistently demonstrate safe practices and healthy relationships.
- Properly select, use, store, and maintain all tools and equipment.
- Effectively read a variety of materials and communicate in a variety of situations.
- Accurately solve mathematical calculations, and apply geometric concepts, in context.
- Accurately measure within industry-standard tolerances.
- Demonstrate GRIT. Persevere through challenges and not give up.
- Prepare vehicle for service.
- Diagnose and repair disc brake systems.
- Diagnose and repair drum brake systems.
- Diagnose and repair steering and suspension systems.
- Inspect and adjust manual drive trains.
- Diagnose and repair electrical/electronic components and systems.
- Inspect tires and perform tire service.
- Evaluate the condition of a battery and determine what action should be taken.
- Diagnose and repair the starting system.
- Diagnose and repair charging systems.
- Inspect and repair lighting and accessory systems.
- Inspect and identify parts of heating and cooling systems.
- Demonstrate proper torch and welder operation.
- Inspect and replace engine performance parts.
- Inspect and repair hydraulic brake systems.