

AUTO MECHANICS

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COURSE OBJECTIVE

Students will obtain education and skills to work as Mechanics in the automobile industry.

COURSE DESCRIPTION

The three-year Automotive Mechanics program is for tenth, eleventh, and twelfth grade students. This program will prepare students for employment in the auto repair industry working with engines, brakes, steering, suspension, engine performance, and electrical. The program will also assist in the diagnosis and repair of various drivability conditions and routine vehicle maintenance.

COURSE TOPICS

Brakes | Coolants | Electrical Systems | General and Specialized Tools
Identification and Functions of All Major Components of a Motor Vehicle | Lubricants
S/P2 Safety & Pollution Prevention Training | Safety Procedures for Automotive Shop Repairs
Suspension and Steering | Transmission and Engine Service | Vehicle Roadworthiness
Workplace Skills in Accordance with Automotive Service Excellence (ASE)

REQUIRED SUPPLIES

Earbuds or Headphones | Leather Work Boots (Steel Toed Required) | Safety Glasses
Shop Shirt (Black Tee) | Workwear Pants (Black)

TEXTBOOK

Electude Online Training; ShopKey Pro, Service Info

COOPERATING COMPANIES

Bobby Rahal BMW–Canonsburg, PA
Budd Baer, Inc.–Washington, PA
South Hills Chrysler–McMurray, PA

Vasko Dodge–McMurray, PA
Washington Auto Mall–Washington, PA
Washington Ford–Washington, PA

SPECIALIZED SHOP EQUIPMENT

Brake Rotor/Drum Lathes | 4-Wheel Alignment Machine | Scan Tools
Tire Changing and Balancing Equipment | Various Electric and Air Power Tools and Hand Tools

CERTIFICATIONS

Automotive Lift Institute: Lifting it Right
Mobile Air Conditioning Society Worldwide: Section 609 Certification for Refrigerant Recycling and Recovery
National Coalition of Certification Centers: NC3 Electronics/Electrical Certification
National Institute for Automotive Service Excellence: Section 609 Certification for Refrigerant Recycling and Recovery
PA Skills Certificate
S/P2: Automotive
S/P2: Safety & Pollution Prevention
Snap-On: Automotive Scanner Diagnostics
Snap-On: Meter Certification
Valvoline: Motor Oil Certification

POST-SECONDARY TRAINING OPTIONS

Community College of Allegheny County–Automotive Engineering Technology
Ohio Technical College–Auto/Diesel Technology
Pennsylvania College of Technology–Automotive Engineering Technology
Rosedale Technical Institute–Automotive Mechanics Technology

POTENTIAL CAREERS

Auto Dealer Technician | Automotive Sales | Brake System Specialist | Emissions Technician
Engine Performance Specialist | Insurance Adjuster | Parts Manager | Parts Specialist | Service Advisor
Service Manager | Service Station Proprietor | Tire and Suspension Specialist

AUTO MECHANICS SKILLS

Troubleshooting — Determining causes of operating errors and deciding what to do about it.
Repairing — Repairing machines or systems using the needed tools.
Equipment Selection — Determining the kind of tools and equipment needed to do a job.
Active Learning — Understanding the implications of new information for both current and future problem-solving and decision-making.
Critical Thinking — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
Reading Comprehension — Understanding written sentences and paragraphs in work related documents.
Installation — Installing equipment, machines, wiring, or programs to meet specifications.
Complex Problem Solving — Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
Active Listening — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate and not interrupting at inappropriate times.
Equipment Maintenance — Performing routine maintenance on equipment and determining when and what kind of maintenance is needed.

WAGES AND EMPLOYMENT TRENDS FOR AUTO SERVICE TECHNICIANS & MECHANICS

Median Wages (2020)	\$21.18 Hourly, \$44,050 Annually
Number of Jobs (2019)	756,600 Employees
Job Outlook (2019-2029)	-4% (Decline)
Employment Change (2019-2029)	-27,800

Source: *Occupational Outlook Handbook*

WESTERN AREA CAREER & TECHNOLOGY CENTER
AUTO MECHANICS
2021-2022 Shop Requirements

Shop Uniform/Accessories

- Earbuds or Headphones
- Hat with Shop Logo (Optional)
- Leather Work Boots (Steel-Toed Required)
- Safety Glasses (First Pair Provided by Western Area CTC)
- Tee Shirt, Black (Use Enclosed Order Form)
- Workwear Pants, Black

APPROXIMATE COST: \$150

Hats with the shop logo may be worn in the shop, but are not mandatory. No other hats are permitted. Order uniform tee shirts and hats by mailing the enclosed order form to TNT Manufacturing or by ordering online at companycasuals.com/WACTC. All uniform orders are delivered to Western Area and will be distributed to students after the start of the school year.

Uniform pants may be purchased at any discount chain or department store. Workwear brands such as Dickies, Dockers and Carharrt are suggested. Lost or broken safety glasses may be replaced throughout the year in the Main Office. Cost is approximately \$3.

Clinical activities/learning situations may require that any body piercings be removed and any tattoos covered.

Students may be required to wear professional clothing for vocational student organization conferences, competitions and meetings.

All criteria is subject to change.