Washington County Technical High School
Automotive Technology Department
50 West Oak Ridge Drive
Hagerstown, MD 21740

Good Evening,

Congratulations on being accepted into the Automotive Technology Program here at Washington County Technical High School. You have taken the courageous first step in opening up your future to a vast array of opportunities. Successful completion of this program opens many doors including post-secondary education, internships, and career placement.

The Automotive Technology Program is certified through the ASE Education Foundation. In the Automotive Technology Program students will complete the ASE and MSDE Maintenance and Light Repair Plus program. This program is designed to prepare students for post-secondary education and to become entry level Automotive Technicians. The Automotive Technology Program has active articulation agreements with UTI and UNOH as well as having partnerships with other post-secondary schools including: PIA, YTI, CCBC, OTC, Lincoln Tech, NADC, and ACC.

Through the Student Trades Foundation there is an active "Mini Dealership" integrated into the program designed to provide students real life experience, responsibility and pride in their work and craftsmanship as they repair and recondition automobiles for sale to the public.

This packet includes preliminary information about the program including a required supplies list, technical uniform requirements, cooperative learning policy, grading policy and the scope and sequence of the program. A more detailed and extensive packet will be provided during Junior Orientation and/or the first day of school. If you have any questions about the Automotive Technology Program please feel free to contact me via phone or email.

(301) 766-8064
violeway@wcps.k12.md.us

Wayne E. Violet
Automotive Technology Instructor
M.Ed

AUTOMOTIVE TECHNOLOGY

REQUIRED SUPPLY LIST

- **SPIRAL NOTEBOOK**
  DEDICATED TO NOTE TAKING IN CLASS
- **PENS AND PENCILS**
- **BASIC FLASHDRIVE (THUMBDRIVE)**
  DEDICATED TO AUTOMOTIVE TECHNOLOGY

REQUIRED PERSONAL PROTECTION EQUIPMENT (PPE)

- **SAFETY GLASSES OR GOGGLES**
  - **REGULAR EYEGLASSES ARE NOT SAFETY GLASSES AND MUST BE COVERED WITH SAFETY GLASSES OR BE CLEARLY MARKED WITH ANSI CERTIFICATION**
- **BLACK WORK SHIRTS AND PANTS OR BLACK COVERALLS**
  - **DICKIES BRAND ARE SUGGESTED**
- **WORK BOOTS – (STEEL TOE IS OPTIONAL BUT PREFERABLY BLACK IN COLOR)**
  - **NO OPEN-TOE SHOES OR FLIP-FLOPS ARE ALLOWED!**

Scope and Sequence for Automotive Technology Level I and II

Course Title: Automotive Technology

Instructor: Wayne Violet

Major Resource(s): MSDE MLR+ Curriculum, Goodheart-Wilcox Modern Automotive Technology Curriculum

Term (Marking Period)	Unit (s) Covered: (Topics only)	Unit Objectives: (Lesson objectives will be more specific)	Tentative Formal Course Assessment Dates:	Technical Skill Attainment(s): ASE Student Certifications
Overview	Automotive Technology curriculum to be completed in Level I			
Unit I: Sept 4 - Oct. 1 60 hrs.	• (Concurrent courses) • Introduction to Automotive Technology • Extensive Safety Training	Students will complete the following sections: ➢ Introduction to the Automobile ➢ Automotive Careers and ASE Certification ➢ Hand tools, power tools and equipment ➢ Automotive shop safety ➢ Repair Orders and Service Information ➢ Basic electricity and electronics fundamentals ➢ Fasteners, gaskets, seals and sealants	Last week of September	MLR (Maintenance and Light Repair)
Unit II: Oct 1 - Nov. 16 84 hrs.	• (Concurrent courses) • Steering and Suspension • Brakes	Students will complete the following sections: ➢ Tire, wheel and wheel bearing fundamentals and service ➢ Suspension system fundamentals ➢ Suspension systems diagnosis and repair ➢ Steering system fundamentals ➢ Steering system diagnosis and repair ➢ Brake system fundamentals ➢ Brake system diagnosis and repair ➢ Anti-lock brakes and traction control handling systems ➢ Wheel alignment	Second week of November	MLR Steering and Suspension Brakes ASE
Unit III: Nov.16 – Jan. 30 120 hrs.	• (Concurrent courses) • Electrical and Electronics • Computer systems	Students will complete the following sections: ➢ Automotive batteries ➢ Battery testing and service ➢ Starting system fundamentals ➢ Starting systems diagnosis and repair	Last week of January	MLR Electrical/Electronics ASE

		➢ Charging system fundamentals ➢ Charging system diagnosis and repair ➢ Ignition system fundamentals ➢ Ignition system diagnosis and repair ➢ Lights instrumentation, wipers and horns operation and service ➢ Sound systems and power accessories ➢ Hybrid drive system operation and repair ➢ Computer system fundamentals ➢ On-board diagnostics and scan tools ➢ Computer system service		
Unit IV: Feb. 1 – Feb. 15 30 hrs.	• Safety, Security and Navigation Systems	Students will complete the following sections: ➢ Restraint systems ➢ Restraint systems service ➢ Security and navigation systems, new and future technologies	Second week of February	MLR Electrical/Electronics ASE
Unit V Feb 16 – March 7 42 hrs.	• Emission Control Systems	Students will complete the following sections: ➢ Emission control systems ➢ Emission control system testing, service and repair	First week of March	MLR Engine Performance ASE
Unit VI March 8 – March 15 24 hrs.	• Engine Performance	Students will complete the following sections: ➢ Engine performance and driveability ➢ Advanced diagnostics ➢ Engine tune-up	Third week of March	MLR Engine Performance ASE
Unit VII March 15 – April 15 48 hrs.	• Fuel Systems	Students will complete the following sections: ➢ Automotive fuels, gasoline and diesel combustion ➢ Fuel tanks, pumps, lines and filters ➢ Gasoline injection fundamentals ➢ Gasoline injection diagnosis and repair ➢ Carburetor operation and service ➢ Diesel injection fundamentals ➢ Diesel injection diagnosis and repair ➢ Exhaust systems, turbochargers, and superchargers	Third week of April	MLR Engine Performance ASE
Unit VIII April 16 – April 30 30 hrs.	• Heating and Air conditioning	Students will complete the following sections: ➢ Heating and air conditioning fundamentals ➢ Heating and air conditioning diagnosis and repair	Last week of April	MLR HVAC ASE

Unit IX May 1 – May 15 30 hrs.	• Cooling and Lubrication	Students will complete the following sections: ➢ Cooling system fundamentals ➢ Cooling system testing, maintenance and repair ➢ Lubrication system fundamentals ➢ Lubrication system testing, maintenance and repair	Second week of May	MLR HVAC ASE Engine Repair ASE Engine Performance ASE
Unit X May 16 – June 11 66 hrs.	• Drive Trains and Axles	Students will complete the following sections: ➢ Clutch fundamentals ➢ Clutch diagnosis and repair ➢ Manual transmission fundamentals ➢ Manual transmission diagnosis and repair ➢ Automatic transmission fundamentals ➢ Automatic transmission service ➢ Drive shafts and transfer cases ➢ Drive shaft and transfer case diagnosis, service and repair ➢ Differential and rear axle fundamentals ➢ Differential and rear drive axle diagnosis and repair ➢ Transaxle and front drive axle fundamentals ➢ Transaxle and front drive axle diagnosis and repair	Second week of June	MLR Automatic Transmissions Manual Transmissions Drivetrains ASE
		Level II		
SP2 Safety Training for Level II Sep 4 - 18 24 hrs.	Safety Refresher Course Comprehensive Safety Plan SP2 Training	Students will complete the following sections: ➢ Comprehensive Safety Plan ➢ Automotive Safety Refresher Course ➢ Complete SP2 in Mechanical Safety, Pollution Prevention and the Supervisors Course	End of August	MLR
Unit XI Sept. 18- Dec. 21 180 hrs.	• Engine Repair	Students will complete the following sections: ➢ Engine Fundamentals ➢ Engine Design Classifications ➢ Engine Top End Construction ➢ Engine Bottom End Construction	End of November	MLR

		➢ Engine Front End Construction ➢ Engine Size and Performance Measurements ➢ Complete Engine Teardown, Inspection, Measurement , Advisement for Repairs and Reassembly		
Dec 21. – Jan. 15 52 hrs.	• Preparation for First ASE Student Certification Testing Window	Students will complete the following: ➢ Complete G1 ASE Practice Exams ➢ Complete ASE Practice Exams in Brakes ➢ Complete ASE Practice Exams in Electrical ➢ Complete ASE Practice Exams in Steering and Suspension	End of January	MLR Brakes ASE Steering and Suspension ASE Electrical/Electronics ASE
Unit XII Jan 16 – Feb 28 36 hrs.	• Advanced Brakes	Students will complete the following sections: ➢ Advanced braking system ➢ Advanced brake system diagnosis and repair ➢ Advanced anti-lock brakes and traction control handling systems	End of February	MLR Brakes ASE
Unit XIII Mar 1 – April 15 84 hrs.	• Advanced Steering and Suspension	Students will complete the following sections: ➢ Advanced suspension system fundamentals ➢ Advanced suspension systems diagnosis and repair ➢ Advanced steering system fundamentals ➢ Advanced steering system diagnosis and repair ➢ Advanced wheel alignment	Middle of April	MLR Steering and Suspension ASE
Unit XIV April 16 – May 30 52 hrs.	• Advanced Electrical/Electronics	Students will complete the following sections: ➢ Advanced Electrical Training ➢ Extensive DVOM training ➢ Wiring repair ➢ Terminal/connector repair ➢ Parasitic draw testing ➢ Waveform readings / PWM measurements ➢ Digital vs. analogue ➢ Sensor diagnosis	End of May	MLR Electrical/Electronics ASE
June 1	• Final ASE Student Certification Testing Window	Students will complete ASE Student Certification Exams as Applicable	Beginning of June	

Automotive Technology Grading Policy

Revised 4/5/2019

The following grading procedures will apply to all students enrolled in Automotive Technology and will be in effect throughout the school year.

Each marking period you will earn a grade based on your performance in the following areas:

1. **Exam/Assessment Scores** **50%**
2. **Classwork/Homework** **30%**
3. **Daily Professionalism Grade** **20%**

It is the responsibility of the student to request missed work due to absenteeism. There will be a ten percent deduction for each day work is turned in late. Most assignments are provided through Google Classroom and can be accessed by students who are not present at WCTHS.

Parent/Guardian Signature_____Date_____

Student Signature_____Date_____

Student Name (Printed)_____