

Automotive Technology
Maintenance & Light Repair 2
Course Syllabus

Instructor: Craig Bowers
Course Number: 5880/C20H10
Class Location: Room 204

COURSE DESCRIPTION: Introduces students to principles of electricity and electronics. Course includes the development of skills in basic automotive maintenance, service and repair. Students are introduced to diagnosis of systems and concerns, causes and correction of problems. Critical thinking skills and shop safety are emphasized. Course includes applied academics of math, science and language arts. Minimum performance requirements for this course are based on successful completion according to the National Automotive Technicians Education Foundation (NATEF) Automobile Program Standards.

PREREQUISITE (S): MLR1,

COURSE OBJECTIVES, on completion of this course, the student will:

1. Students will perform safety examinations and maintain safety records.
2. Students will demonstrate leadership, citizenship, and teamwork skills required for success in the workplace.
3. Students will properly test, diagnose, repair, and service general automotive electrical systems.
4. Students will inspect, test, and service vehicle batteries.
5. Students will inspect, test, service, and repair vehicle starting and charging systems.

For additional information go to:

<https://tn.gov/education/article/cte-cluster-transportation-distribution-logistics>

INSTRUCTIONAL DELIVERY METHODS: Lecture, demonstration, power point, audiovisual, training modules, and multimedia.

REQUIRED TEXTBOOKS, MATERIALS, TOOLS BY THE STUDENT:

Textbook and all tools are provided
Student need to bring Pen or pencil & Paper

MATERIAL USED IN THE CLASSROOM/LAB: Textbooks, computers, repair software, projector, hand tools, air powered tools, electric tools, training modules, jacks and automotive lifts, automobiles, digital multimeter, battery system analyzers, and precision measurement tools.

EVALUATION: The student will be evaluated on daily work, test, performance evaluations, work ethics and lab work. **Evaluation Make-up:** Any missed work must be completed following the guidelines in the school handbook. This is the students' responsibility.

ASSIGNMENTS: The student must complete all assignments within the allotted time frame given. **Assignment Make-up:** Any missed work must be completed following the guidelines in the school handbook. This is the students' responsibility

GRADING SYSTEM: Grading system

A= 100-93

B= 92-85

C= 84-75

D= 74-70

F= 69-0

ATTENDANCE POLICY: The attendance policy found in the student handbook will be followed. It is important that the student attend class regularly. Missed labs must be made up on student's time after school. Make up lab days/times will be posted.

SAFETY POLICY: Due to the possible dangers associated with automotive shop, additional rules to the student handbook will be followed in the automotive shop. These rules will be covered in detail during the shop safety lessons at the beginning of the semester. All students must wear the appropriate clothing and safety glasses to be able to work in the shop area. All students must pass safety performance test with score of 100 % to enter lab.

SHOP ACTIVITIES: Shop activities shall include but not limited to the following;

Locating vehicle information – decoding vehicle identification number – identifying power-train configurations – identifying chassis configurations - using a shop manual – using an owners manual – using a repair manual – using computerized service information – using a parts manual – using a labor guide – recording service procedures – checking and changing engine oil and filter – checking and adjusting power train fluids – checking and changing transmission/ transaxle fluids and filters – checking and adjusting differential fluids – checking and adjusting coolant levels – checking and adjusting brake fluid – checking and adjusting power steering fluid – checking and adjusting windshield washer fluid –inspecting and adjusting engine drive belts – servicing air conditioning systems, inspecting vehicle safety features – checking exterior lighting – checking and replacing windshield wiper blades – checking and adjusting tire pressures – checking tire wear patterns- new car pre delivery inspection- lubrication service of wear points- cleaning and care of vehicle.

Parent signature: _____