

Automotive Technology

Auto Basics

Lehman High School

2019-2020 Syllabus

Mr. Yargeau

Automotive Basics Course Description

This program prepares students to become automotive technicians, who are trained in the latest automotive service technologies and methods. Course includes an introduction to the automotive industry, including automotive history, safety practices, shop tools and equipment, parts identification, fundamental technical training on current model vehicles and components with emphasis on the latest developments in engine repair, automotive electrical, electronic systems, and emission control systems.

- Personal/Shop safety
- Professional development
- Hand tools
- Shop equipment
- Basic/advanced electrical systems
- Engine repair
- Hydraulics and ABS brake systems
- HVAC systems
- Steering
- Suspension
- Transmission and Drivetrain
- Basic/advanced engine performance

Instructional Philosophy

The goal of this program is to have students gain knowledge of the automotive theories as well as acquire the aptitude skills required to be an automotive technician. In the automotive program, we do not just train the students to have technical skills; we train them to be productive by also teaching them personal skills. This course will be heavily theory and laboratory based with a minimum on lecture and demonstration. Students will work in teams and independently to diagnose and repair the different systems of a vehicle, using the proper tools and equipment in a safe manner. Assignments will require students to draw upon academic skills in mathematics, science, writing, reading and communications. Student assessment will be based on safety, group participation and individual completion of projects and tests of students' knowledge. If necessary, students will be given more than one opportunity to complete assignments to meet course standards.

Program Goals — Students will

- Utilize testing procedures and equipment associated with vehicle diagnostics
- Read, understand and communicate in the language of the automotive field
- Use mathematical skills and processes to solve problems related to the automotive field
- Demonstrate basic knowledge of the parts of an automobile

- Have the ability to identify and choose the proper tool
- Demonstrate proper safety practices in the automotive field
- Prepare for entry level employment in the automotive industry
- Have the ability to perform tasks expected of new auto industry hires

Examples of Major Course Projects and Assignments

1. Technical Performance Projects throughout the course that students will disassemble and reassemble:

- Gasoline engine
- Brake components
- HVAC components
- Suspension parts
- Fuel system components

2. Applied Academics Projects:

- Writing repair orders and calculating costs and percentages of parts and labor
- Reading a micrometer
- Operating a Snap-on A/C refrigerant recovery and recharge unit
- Researching vehicle information utilizing ALLDATA

3. Problem Solving Projects:

- Diagnose various electrical problems of a vehicle and communicate actions to solve
- Perform wheel alignment and communicate actions for corrections made to the vehicle
- Diagnose engine performance codes
- Diagnose hydraulic and antilock brake problems

Rules & Procedures

Due to the time consuming shop set-up and clean-up procedures, students are expected to be in their seats and ready to work before the tardy bell rings every day to utilize every minute of class. *Students are to dress out in work clothes and wear safety glasses in the shop **at all times**.

*Students are to participate in all class and shop activities.

*Students must properly clean and store all equipment used.

*Students are to clean work area at the end of every class.

*No personal electronics or backpacks will be allowed in shop area unless directed otherwise.

*Students are not to leave classroom or shop at any time without permission from the teacher.

*Students must comply with all rules and procedures in their handbook.

Materials

- Paper
- Pens/Pencils
- Journal (composition notebook)
- Proper clothing for a shop environment

Grading policy

We will be on 9 week grading periods. Grades will be calculated as follows:

Major Grades - Tests and Unit Assessments 60%

Minor Grades: 40%, will include the following

- Warm-ups and Participation

- Homework and Assignments
- Professionalism
- Class Preparedness

Dismissal

Students may be dismissed from Auto Tech if:

1. They are a danger to themselves or others (teacher discretion).
2. Consistently refuse to dress out and/or participate.
3. Cause property damage.
4. Displays any other behavior deemed unsuitable for this class.

Certifications

Students will have the opportunity to become OSHA (Occupation Safety and Health Administration) certified. They will also have the opportunity to receive certifications through the SP2 and Valvoline Ignition programs. Students may be responsible for some the certification fees.

Educational Trips/Competitions

Students must meet the following requirements to attend:

- Maintain an 85 or above average for each grading period in auto classes
- Be assigned to ISS no more than once all year.
- Not be assigned to DAEP.
- No more than 1 unexcused absences per grading period.
- No more than 2 tardy per period.
- No more than 1 teacher assigned detention per grading period.

Plagiarism, Cheating, and Academic Dishonesty

None of these are acceptable or tolerated. If information is used that is not your own for any reason you must cite the source and give credit to the originator off the work. If caught cheating the assignment will be given a grade of zero, and the same assignment may not be made up. Parents/guardians will be notified of the occurrence. If there are repeat incidents then a meeting will be requested with parents/guardians, and administration.

I look forward to working with you and your child and am very excited about this year. If you have any questions or concerns, please do not hesitate to contact me at (512)-268-8454 ext. 47702 or email me at Michael.Yargeau@hayscisd.net.

By signing this document you are agreeing to participate in the program as outlined above and understand the expectations of the program.

Printed Name of Student: _____

Student Signature: _____

Printed Name of Parent/Guardian: _____

Signature of Parent/Guardian: _____

Parent/Guardian Preferred Contact Method: Call Text Email

Parent/Guardian Phone Number: _____

Parent/Guardian Email Address: _____

Please Circle Any Activities That You Or Your Child Are Not Comfortable Participating In

Lifting/Jacking a Vehicle Working/diagnosing moving parts Handling hazardous chemicals

Operating moving machinery Handling dirty equipment/items Using Power Tools

Using high compressed air Working on someone's personal vehicle

Wearing safety glasses and closed toes shoes at all times in the shop area