

Course description: An introductory to design, construction, and operation of automotive systems.

Student Expectations:

- Be on time and in class every day
- Participate in the designated daily activity
- Work the entire period on automotive activities and behave in a manner which is conducive to a professional setting
- Remain in the assigned area until the bell rings and you are dismissed
- Make up all missed work (it is up to you to do this)
- No food or drink
- FOLLOW ALL SAFETY RULES AND INSTRUCTIONS
- Take care of out side business before entering the class(rest room, locker, office)

Assignments: Through out the semester there will be a number of in class assignments as well as homework. This is a project oriented class and lab work is a big part of your final grade.

Evaluation process:

- Written tests and quizzes
- Written assignments and notes
- In shop projects and assignments
- **Participation**

IPAD Usage:

ipads are to be turned off and put away at all times unless you have asked for and been given permission to use it.

- Covered shoes are required every day, jeans or pants are suggested. There is locker space in the shop, it is a good idea to bring older clothes and shoes for in the shop classes.

It takes the work of students, parents, and teachers working together to ensure a suitable learning environment. Thank you for your support and feel free to contact me any time at 402-443-4332 ext. 3213 or a kweyers1@esu2.org

Student signature

Parent or guardian signature

Date

Course Content

*This is a tentative out line of the chapters/units that we will cover. This is subject to change based on student progress in class and in the automotive lab. It is possible that all units may not be covered.

Unit 1: Safety

Unit 2: Hand Tool I.D and Usage

Unit 3: Parts Identification/Terms

Unit 4: Building an Engine

Unit 5: Design, Construction, Application, and Engine Components

Unit 6: Fuel Injection Systems

Unit 7: Fuel Supply and Carburetors:

Unit 8: Brakes

Unit 9: Lubrication Systems

Unit 10: Exhaust Systems

Unit 11: Computer Systems

Unit 12: Brakes

Unit 13: Suspension Systems

Unit 14: Wheels and Tires

Unit 15: Career Opportunities

Essential Learning - Auto 1

1. Students will be able to demonstrate safe working practices while in the shop.
2. Students will be able to properly identify, describe and use the most commonly used automotive tools.
3. Students will be able to identify the basic parts of an engine
4. Students will be able to explain engine operating systems and explain the function of the major parts of an engine.
5. Students will be able to describe the four-stroke cycle sequence.
6. Students will be able to describe basic engine design
7. Students will be able to describe the gasoline and diesel injection system.
8. Students will be able to describe the components of the fuel supply system.
9. Students will be able to list the functions of an engine cooling system.
10. Students will be able to explain the need for an engine lubrication system.
11. Students will be able to explain the purpose of the exhaust system.
12. Students will be able to explain why computers are used in modern vehicles.
13. Students will be able to explain the difference between drum and disc brakes.
14. Students will be able to identify the purpose of the suspension system.
15. Students will be able to explain different tire construction and size designations.
16. Students will be able to check and perform basic maintenance on their personal vehicles