

Course description: The Power Drive Program encourages interest in energy-related and automotive-related industries. A light-electric vehicle (LEV) competition, Power Drive does so by bringing a practical focus to students' math, science and/or vocational education. During the course of a school year, students design and construct a safe, energy-efficient electric vehicle that they get to showcase during a series of rallies in the spring. They work in teams, under the direction of instructors who have been trained at Power Drive workshops. Instructors report the program boosts academics, school spirit and community interest and support.

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**
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- 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: What is Power Drive

Unit 3: Designing and Creating models to scale

Unit 4: Chassis and Frame Construction

Unit 5: Front end and Suspension

Unit 6: Steering and Breaking

Unit 7: Charging and Maintaining Batteries

Unit 8: Body and Aerodynamics

Unit 9: RACE DAY PROCEDURE AND EXPECTATIONS