

EPT 11 - Energy, Power, & Transportation

Course Rationale

EPT 11 students will gain an appreciation and understanding of energy usage historically, presently, and potential energy sources of the future. This course examines the various sources of energy in the world we live and how we convert and control these various sources of energy to meet human needs (power). One of the most observable uses of this energy is in transportation systems. Students will examine how sources of energy are converted into motion and how they are used to carry people & materials on the ground, in the air, on water, and into space.

Course Objectives

Upon completion of the course students will be able to:

- Identify, describe, and explain various ways in which energy is harnessed and used to meet the wants and needs of humans.
- Identify many traditional, current, and revolutionary energy sources.
- Demonstrate an understanding of engines and engine systems.
- Express their creativity through the problem solving process
- Identify ways to conserve energy and make better choices with respect to consuming and conserving energy
- Work safely and productively in the lab.

Expectations

Students are expected to:

- Take ownership of their learning by attending class regularly, on time and prepared to work. Each student has different strengths and weaknesses; you will be expected to do your best and take the course seriously.
- Pass in assignments on the indicated deadlines or except a late penalty. Unexcused lateness, absences, and other in-class indicators of poor attitude and participation will have a direct effect on grades.
- Respect the role of the instructor and the rights of peers to learn, by acting in a mature fashion.
- Treat equipment and resources as if they are on loan. The equipment must operate reliably for other students too. While accidents happen, misuse of equipment will result in removal of privileges and/or compensation for damaged goods.

Evaluation:

Lab-work and Projects 40%
Safety.....20%
Tool and Machines.....30%
Cleanup.....10%