

Advanced Technology 120

Advanced Technology deals with the practical application of Environmental Science with respect to such concepts as energy conservation, alternative energy and efficient building design. Students will learn how to calculate electrical power, energy and cost. Students will learn ways to reduce or save energy using data based decision making. In order for students to make data based decisions they will learn how to use various data collection and manipulation devices. The course has a large emphasis on group project work. Past projects have included energy efficient building design, solar hot water heaters and solar thermal air heaters, solar PV panel testing, electrical and water audits. As this is a Project Based class, a large emphasis is placed on use of group work, as well as presentations and data manipulation.

Course Objectives

1. Students will assess a real-world problem and design, develop, implement, and evaluate a technological solution.
2. Students will critically evaluate the social and cultural implications and consequences of technological developments and choices.
3. Students will demonstrate appropriate interpersonal skills within a variety of media and social contexts and will work effectively as a member of a team.
4. Students will manage, access, process, evaluate, and present information clearly, logically, concisely, and accurately for a variety of audiences.

Assessment

Individual log books – 10%

Projects – 90%

- Group or Individual Assignments
- Progress Reports and Presentations
- Self and Peer assessments
- Final Reports and Presentations
- Products

* Because the projects will vary depending on time, group composition, etc, the percentages will vary. Instructor and group members can discuss the break down of marks on a per project basis. (For example: if your group builds a project it will need a different break down than a project that only has report.)

** There are no exemptions as the final exam is the final presentation of your project. Often I invite guests from the community. In the past we have had the local MLA, school admin, members of the GAIA Project, and members of town council.