

Course Outcomes AET-101 Problem Solving for AET

Course Title: AET-101 Problem Solving for Alternative Energy Technology

Date: Fall 2017

Course Team: Greg Betz

Programs: Alternative Energy Technology

Expected Learning Outcomes

1. Apply computational techniques and algebraic skills to solve problems encountered in the alternative energy workplace setting (Computational and Algebraic Skills).
2. Apply visualization, spatial reasoning, as well as geometric properties and strategies to model and solve problems related to AET (Geometric Skills).
3. Apply technology, where appropriate, to enhance and facilitate mathematical understanding, as well as an aid in solving problems and presenting solutions to AET situations. (Technological Skills).
4. Communicate and understand mathematical statements, ideas and results, both verbally and in writing which apply to AET problems and situations. (Communication Skills).
5. Work collaboratively with peers and instructors to apply mathematical concepts and solve problems related to AET situations. (Collaborative Skills)

Assessment

Assessments will include:

2 written tests and a final written exam

Validation

- Comparison of students grades with previous semesters
- The evaluation of student performance and ability to transfer knowledge to next level of class in the program.
- Consult Advisory Committee participants as to performance of interns and hired students based on ability and knowledge gained.

Results

- Fall 2018
 - Class average 84%
- The results of the testing and final examination show retention of the classroom materials.
- The results of the practice exercises show the ability of the student to transfer textbook information to hands-on applications.
- The data will be evaluated to improve teaching techniques

Follow Up

- The results will be used to alter the course content to focus on areas were students had the most issues
- The data will be evaluated to improve teaching techniques

Budget Justification

Update textbook to include changes in technology

Update classroom equipment to keep pace with changes in technology

There is no new budget request for this particular course.