

Principles of Applied Engineering

Engineers make a world of difference!

Principles of Applied Engineering (POAE) is a high school level foundation course in the Fort Bend ISD Engineering Program. Students are introduced to the engineering design process, applying math, science, and engineering standards to identify and design solutions to a variety of real problems. POAE provides an overview of the various fields of science, technology, engineering and mathematics and their interrelationships. Students will use a variety of computer hardware and software applications to complete assignments and projects.

Students are introduced to the engineering design process, applying math, science, and engineering standards to identify and design solutions to a variety of real problems. They work both individually and in collaborative teams to develop and document design solutions using engineering notebooks and 3D modeling software. Upon completing this course, students will understand the various fields and will be able to make informed decisions regarding a coherent sequence of subsequent courses. Further, students will have worked on a design team to develop a product or system. Students will use multiple software applications to prepare and present course assignments.

Are you ready to design the future?

Supplies:

- *Composition Book Quad Rule (graphing paper)*
- *Pencil*
- *Tape*
- *Scissors*

Student Expectations:

- All students will be on time. Tardiness is not acceptable
- Students must come to class prepared each day by completing all assignments/ materials learned in class.
- Students will be expected to participate in all activities involved with the class.
- Any student who is absent from class is responsible for getting material from another student in the class and be prepared when returning to class.
- Each student is responsible for their own belongings and materials.
- Follow all rules and regulations of RPHS
- ALL students are expected to participate no matter the circumstance!!!! Participation is imperative for this type of class. If a student refuses to participate, then points may be deducted from the student's grade. Participation grades may be given at any time throughout the semester.

Requirements:

- All students must come to class prepared with the following materials: Engineering Notebook and Pencil (Additional materials will be announced before the next class when they are needed.)
- Students will be required to keep up with an interactive notebook for their assignments.

Grading Policy:

- Major 50%
- Daily: 50%

*Each nine weeks, is worth 42.5% of the semester grade. The final exam is worth 15%

Daily Grades:

- Most activities assigned will be daily grades. Rubrics for each activity will be communicated to students
- Hands on lab activities will also occur in this class. These will usually be daily grades, but will more heavily weighted, depending on how many class days it takes us to complete these activities
- Daily warm-ups will be graded at the end of every week. These will be worth one-quarter that of normal daily grades.

Major Grades:

- There will be written, hands on, and visual tests (or projects) given. Written exams will consist of facts, problems and vocabulary given prior to the test date. Visuals, and hands on exams will be assigned throughout the semester with given due dates.
- Notebook Checks: Students will be required to actively keep their Engineering Notebook up to date. Expect a notebook check every 2-3 weeks to ensure proper notebook keeping. These will be worth half of what your normal major grade is worth.
- Retakes: Retakes will be allowed for written test only. Students have one week (5 school days) from the date the scored test was returned to make up the test. The maximum score that can be achieved is a 75.

- Every day an activity is late, you will lose 5 points.

Schoology:

- Schoology is implemented in the classroom as a blended learning tool to help students be successful. Lessons, including video lessons, will be posted in schoology for students to access at any time. You can also expect activities posted here. This information will be provided to students throughout the year as needed.