

CFISD Principles of Applied Engineering

Scope and Sequence

Course Description:

Principles of Applied Engineering provides an overview of the various fields of science, technology, engineering, and mathematics and their interrelationships. Students will develop engineering communication skills, which include computer graphics, modeling, and presentations, by using a variety of computer hardware and software applications to complete assignments and projects. Upon completing this course, students will have an understanding of the various fields of engineering and will be able to make informed career decisions. 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

- Grades 7- 10
- A Lab fee will be required.

TEKS

Cluster: STEM (*Science Technology Engineering and Mathematics*)

Endorsement: STEM (*Science Technology Engineering and Mathematics*)

- Meets advanced course requirement (Y/N): *No*
- Meets foundation requirement for math, science, fine arts, English, LOTE (Y/N-area): *No*

Industry Certification/Credentials: *None*

Instructional Units	Pacing
<p>1st Semester</p> <p>Safety in the Workplace</p> <p>Introduction to Engineering</p> <p>Engineering Design Process</p> <p>Technical Communication</p> <p>Teamwork</p> <p>Introduction to CAD</p>	<p>1st Grading Pd</p> <p>2nd Grading Pd</p>
<p>2nd Semester</p> <p>Problem Solving, Design, and Modeling</p> <p>Engineering Systems</p> <p>Electronic/Electrical Systems</p> <p>Robotic Systems</p> <p>Alternative Energy</p> <p>Team Projects</p>	<p>3rd Grading pd</p> <p>4th Grading Pd</p>

Primary Instructional Materials: *Engineering Fundamentals-GW*