

CFISD Principles of Applied Engineering

Scope and Sequence

Endorsement: Business & Industry (or STEM with required math & science)

Cluster: Engineering or Manufacturing

Program of Study: Engineering Foundations, Robotics

Meets advanced course requirement? **NO** ▾

Engineering or Robotics Manufacturing

Meets foundation requirement for math, science, fine arts, English, LOTE? **NO** ▾

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.

TEKS link

- 1 credit
- Grades 7-10
- Lab supplies or fee may be required
- Required prerequisites: n/a

Industry Certification/Credential: n/a

Instructional Units	Grading Period
Safety in the Workplace Introduction to Engineering Careers in Engineering Discovering CTE Engineering Design Process	N1 (fall)
Sketching Introduction to CAD Civil Engineering	N2 (fall)
Industrial Engineering Environmental Engineering Electrical Engineering Introduction to Robotics/CNC	N3 (spring)
Aerospace Engineering Reverse Engineering Mechanical Engineering Design Development & Application	N4 (spring)

Primary Instructional Materials: eDynamic Learning Engineering