

# CFISD Engineering Design and Presentation II

## Scope and Sequence

### Course Description

Students will work on a variety of projects that will help them develop design skills including those related to team building, problem solving, time management, project design and development. Students will be encouraged to enter competitive events that lead to the completion of industry certifications, internships, and career opportunities. (2 Credits)

- Grades 10 – 12
- Required prerequisite: Engineering Design and Presentation I
- Lab supplies or fee is required.

### TEKS

Program of Study: Engineering

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

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

- Meets advanced course requirement (Y/N): Y
- Meets foundation requirement for math, science, fine arts, English, LOTE (Y/N-area): N

Industry Certification/Credentials: **Autodesk Certified User Certification**

Instructional Units	Pacing
<b>1<sup>st</sup> Semester</b> Career Paths in Engineering Review Documenting the process The design process Reverse Engineering Codes and Standards	1 <sup>st</sup> Grading Prd
Advanced CAD Software Interface Prototypes Project Constraints	2 <sup>nd</sup> Grading Prd
<b>2<sup>nd</sup> Semester</b> Multiview Projection Pictorials Auxiliary Views Section Views Assemblies	3 <sup>rd</sup> Grading Prd
Design Development & Application Systems Work Team Dynamics Documentation Prototyping <b>Certification Practice</b> <b>Certification Testing</b>	4 <sup>th</sup> Grading Prd

Primary Instructional Materials: *Exploring Drafting- GW, Autodesk software.*