

CFISD Robotics II

Scope and Sequence

Course Description: In Robotics II, students will explore artificial intelligence and programming in the robotic and automation industry. Through implementation of the design process, students will transfer academic skills to component designs in a project-based environment. Students will build prototypes and use software to test their designs.

- **1 credit**
- Grades 10– 12
- **Required Prerequisite:** *Robotics I*
- Completing this course satisfies a math credit required for graduation.
- Lab fee will be required.

TEKS

Program of Study: *Engineering Foundations*

Cluster: *Engineering*

Endorsement: *STEM*

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

Industry Certification/Credentials: *FANUC Certified Robot Operator 1*

Instructional Units	Pacing
1st Semester	
Safety History of Robotics and Automation Resource Career Paths (<i>update Resumes</i>) Professionalism and Employability Skills, Tools and equipment used in Robotics	1st Grading PD
Teamwork Team Project Management Robotics competition(s)	2nd Grading PD
2nd Semester	
Technological Systems Engineering principles and Automated systems operations	3rd Grading PD
Robotics competition FANUC Robotics	4th Grading PD

Primary Instructional Materials: *REC Modules, Vex Cortex kits, Robo Guide FANUC Robotics*