



Mission Statement

“To enhance education for better workforce development; and to ignite tomorrow’s innovators while developing the most valued engineering and manufacturing workforce to compete in the global market.”

Program Intent

Improve education in America by inspiring students, teachers, and administrators within the present educational system. Motivate and equip high school students to develop 21st Century skills and pursue careers in science, technology, engineering, and mathematics.

Program Description

A four-year, sequenced, STEM curricula that meets Career and Tech Ed (CTE) course TEKS and HB-5 requirements and receives CTE funding. Curricula covers introductions to the R&D industry and innovation; mechanical drafting/CAD for working drawings capture; and applied physics of main energy systems - mechanical, electrical, thermal, fluid - through design, build, and test projects.

Educational Approach

- Learning primarily through application, not memorization.
- Project-based teaching that engages all types of learners.
- Knowledge and skills are reinforced and expanded through increasingly complex project goals.
- The possibility of project failure, and its analysis if it occurs, is part of the learning experience.
- Life skill development in problem-solving, critical thinking, cognitive reasoning, project management, team work, leadership, and R&D skills and innovation are incorporated.

Accreditation

- The Texas Education Agency has approved *SystemsGo* for the fourth year science credit required for graduation.
- Sophomore curriculum is an articulated credit with an industry user certification availability.
- *SystemsGo* is certified as a Continuing Professional Education (CPE) Provider for the State of Texas.
- Endorsed by NASA, Space Foundation, US Army, Boeing, SpaceX, SAIC, Texas Space Grant Consortium, Texas A&M, and Texas State Technical College.

Successes to Date

- 65% of *SystemsGo* high school graduates are pursuing studies in engineering.
- *SystemsGo* alumni now work for NASA, commercial space companies, private space companies, the military and military/aerospace contractors.
- 75 teachers, across 50 schools, have been professionally trained to implement *SystemsGo* in their schools over the past eight years.

STEM Endorsement

9 th Grade:	Concepts of Engineering and Technology PEIMS # 13036200
10 th Grade:	Engineering Design and Presentation PEIMS # 13036500
11 th Grade:	Scientific Research and Design* (1cr) PEIMS # 13037200 OR Advanced Engineering Design and Presentation (2cr) PEIMS # 13036600
12 th Grade:	Engineering Design and Problem Solving* (1cr) PEIMS # 13037300 OR Practicum in STEM (2cr) PEIMS # 13037400

*Science Credit

