



Imagine THIS!

...as your final exam!

What is SystemsGo?

SystemsGo is an innovative hands-on high school science, technology, engineering, and mathematics (STEM) set of courses that uses project-based learning to stimulate 21st Century workplace skills in

- Design
- Development
- Testing
- Analysis
- Critical Thinking
- Cognitive Reasoning
- Problem Solving
- Innovation

Why should I have SystemsGo in my school?

SystemsGo fulfills state STEM endorsements, Engineering Pathways, and Programs of Study.

- Proven, 4-year, sequenced curricula
- CTE funded engineering courses
- Meets requirements for STEM endorsements in Engineering Pathways and Programs of Study with advanced courses
- AutoCAD curriculum is an articulated credit with an industry user certification availability

SystemsGo prepares workforce of tomorrow

- Develops the most valued engineers to compete in the global market
- Provides experience with engineering industry standards of design and development
- Develops problem solvers and lifelong learners in any field
- 65% of students pursue STEM-related degrees

How does SystemsGo work in the classroom?

The foundational curricula are designed to provide important introductory information to the students, through hands-on projects and problem-solving projects, that promote a student's understanding of innovation, the R&D industry, and work/life skills such as design and development, testing and analysis, problem-solving, leadership, collaboration, and teamwork.

The upper level curricula guide students to design, develop, test, and analyze professional-grade, free-flight, sounding rockets for research applications.

- **Tsiolkovsky Level** students design and test vehicles to loft a one-pound payload to an apogee of one mile.
- **Oberth Level** students attempt flight beyond Mach 1.
- **Goddard Level** students design and develop a vehicle capable of lofting a scientific payload to an altitude of 50,000 feet.

Each year's projects culminate in a fully-supported launch event for all SystemsGo schools.

(Curricula can be tailored to meet your specific STEM requirements.)

Do I have to be a rocket scientist to teach SystemsGo?

No. SystemsGo provides complete **CPE certified training** during the summer, and yearlong advisory support. Schools will receive full curriculum with labs, rubrics, quizzes, exams, plus lists of tools and materials needed. SystemsGo is your source for ordering specific rocket supplies and rocket motor systems, and provides launch support.

Learn more at www.systemsgo.org



Who supports SystemsGo?

SystemsGo is supported by government, business, education, the public and private grant industry.



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Who is using SystemsGo?

The SystemsGo curriculum is now being taught in high schools in Texas, New Mexico, Colorado, and American Community School, Abu Dhabi.

What are the results of integrating SystemsGo?

Documented findings from Texas Tech University Program Evaluation:

- Student ratings of the rocket program experience reach from extremely positive to near heroic levels of effectiveness.
- Students' evaluation of their experience with the program was very positive to extremely positive.
- The SystemsGo program, including its curriculum and learning effects, has a powerful and positive effect on students.
- SystemsGo is meeting and exceeding its stated objectives.
- 65% of students have continued on to pursue STEM-related degrees. Many are in careers at major space related companies such as NASA, United Space Alliance, JPL, and SpaceX.

What are industry, government, and education leaders saying about SystemsGo?



"Of all the educational programs I've evaluated, SystemsGo brings the best teaching-to-learning impact I've seen. Teachers put students in situations that require deep thought, active learning, goal-setting, problem-solving, and teamwork, while learning aerodynamics, electrical engineering, and Newtonian mechanics. Whether in rural, urban, or suburban areas, the teaching and the learning are inspired. Watching SystemsGo-ers work inspires hope in the limitless capacity of education done right."

Hansel Burley, Ph.D., Dean

College of Education and Human Sciences, University of New Mexico

"The hands-on experience designing, building, and testing rockets is precisely the kind of experience SpaceX seeks in its employees. We have hired students who are products of the SystemsGo program, which has given us the ability to witness firsthand the program's success in preparing students for leadership in this industry."

Gwynne Shotwell, President & COO, SpaceX Technologies



"'Rocket scientist' is such a funny term. I think a rocket scientist is someone who takes risks and isn't afraid to try crazy things. It is not that it even takes a super smart person to put a rocket on the moon or a rover on Mars—it takes questions and that sense of curiosity and wonder. And not everybody that goes through the SystemsGo program becomes a rocket scientist or works in space. But it gives kids some hope and shows them their potential at what they can do. It was very important to me as a kid, especially growing up in a small town."

Bekah Sosland Siegfriedt, SystemsGo alum

Mission Operations Systems Engineer for the Mars Rover project at Jet Propulsion Laboratory



"SystemsGo is the type of educational program we desperately need today. It follows the design, develop, test, and evaluate process, just like we do in the aerospace industry. It prepares students for the aerospace workforce through project-based learning of the highest order. It's not an after-school project, it's not only for gifted and talented students, but for every student—inspiring them to achieve things they may never have thought they could even attempt. I've been proud to be a part of this program since 2008."

Joyce B.K. Abbey, Science Applications International Corporation (SAIC)

"SystemsGo students learn by making decisions and not by following directions."

Carl E. "Gene" Garrett, Jr., Captain, U.S. Navy (Retired)

