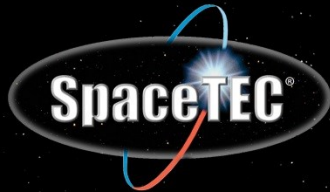


**SPACETEC® SCHOOLS-TO-SPACE®
OUTREACH PROGRAM**



Schools-to-Space.com



Funded in part by a grant from the National Science Foundation

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HISTORY

Schools-to-Space[®] is a national outreach program for secondary schools whose purpose is to introduce students to the STEM career of a Nationally Certified Aerospace Technician.

What had began as an idea at SpaceTEC[®] in April of 2015, Schools-to-Space[®] has rapidly become a nationwide and growing program leader for aerospace secondary school outreach in just a little over a year. Contacts and outreach accomplished in this short time period include:

- Over 1,400 secondary school students, including Title I, directly reached nationwide.
- Nearly 400 STEM educators reached,
- Nearly 150 organizations reached out to and introduced to Schools-to-Space,
- 24 secondary schools reached out to about the aerospace technician apprentice program including Title I schools,
- 8 STEM educator workshops taught,
- Work started on an Aerospace Technician Apprentice Program at two high schools in Florida.
- Sponsored 8 high schools who are sending CubeSat experiments on a glider to 90,000 feet called the Perlan Project.
- Schools-to-Space[®] web portal (www.schools-to-space.com) created and online providing resources to both educators and students. (1,014 visitors in Sept 2016 and over 2,000 visitors in October of 2016).

WHAT IS AN AEROSPACE TECHNICIAN?

“An aerospace technician, is a STEM professional that assembles, services, tests, operates, and repairs systems associated with both expendable and reusable space launch vehicles, payloads, related laboratories, and ground support equipment.”

GOALS

1. Perform outreach to students, primarily at the middle and high school levels to increase awareness of aerospace industry career opportunities.
2. Define activities appropriate to middle and high school students which introduce performance-based certification competencies as building blocks to aerospace careers.
3. Develop interactive workshops for presentation at educator professional development conferences using aerospace-related materials and curricula to build capability for fostering student interest in STEM fields.
4. Work with community-based organizations to coordinate space-related events appropriate to primary school students which educate and excite.

GOAL #1: PERFORM OUTREACH TO STUDENTS, PRIMARILY AT THE MIDDLE AND HIGH SCHOOL LEVELS TO INCREASE AWARENESS OF AEROSPACE INDUSTRY CAREER OPPORTUNITIES.

Current school wide presentations available:

- **“What was it Like to Work on the Space Shuttle: The Misadventures of a Space Cadet.”**
- This entertaining 45 minute presentation explains what it was like to work on the Space Shuttle from an aerospace technician’s point of view. with a Q&A session afterwards.
- **“I Want to be an Astronaut.”**
- This award winning documentary, first premiered on the International Space Station, follows high school senior Blair Mason as he pursues his dream to become an astronaut. The 38 minute long movie discusses past, current, and future human space flight. A Q&A session follows after the movie.



GOAL #1: PERFORM OUTREACH TO STUDENTS, PRIMARILY AT THE MIDDLE AND HIGH SCHOOL LEVELS TO INCREASE AWARENESS OF AEROSPACE INDUSTRY CAREER OPPORTUNITIES.

Current school wide presentations available continued:

- How do you Capture a 4 ½ Ton Satellite? (30 minutes with activity)
- Designing the Future: Building a Home on the Moon (15 minutes)
- Coming in Spring 2017: “What is an Aerospace Technician?”
- The SpaceTEC[®] Satellite will be available for students to explore and perform “hands on work” in a clean room environment as aerospace technicians to prepare the satellite for launch. (1-2 hours) Available late spring 2017



GOAL #2: DEFINE ACTIVITIES APPROPRIATE TO MIDDLE AND HIGH SCHOOL STUDENTS WHICH INTRODUCE PERFORMANCE-BASED CERTIFICATION COMPETENCIES AS BUILDING BLOCKS TO AEROSPACE CAREERS.

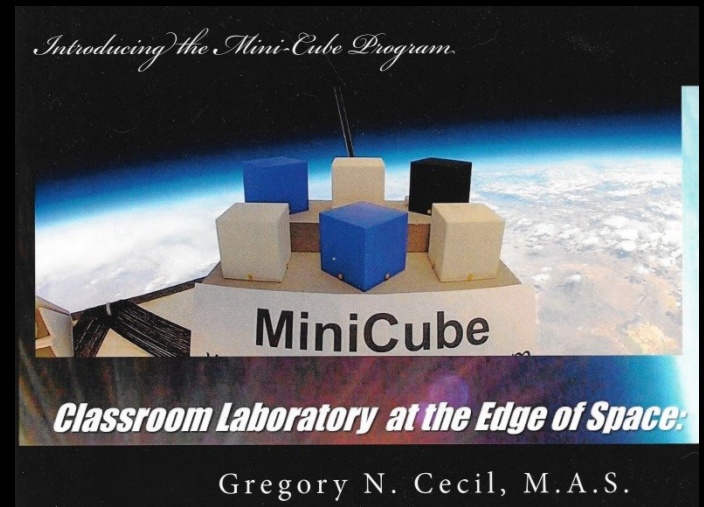
- SpaceTEC[®] wishes to perform outreach and possible partnerships with secondary schools nationwide that have aerospace/aviation technology programs, starting with schools around partner colleges.
- SpaceTEC[®] will assist those schools with setting up a SpaceTEC[®] Aerospace Technician Apprentice Curriculum, based on SpaceTEC[®] Core Competencies, within their aerospace/aviation technology programs, with the goal of those students obtaining an internship with a local aerospace company, potential employment after graduation, and successfully passing the Nationally Certified Aerospace Technician two years later.



GOAL #3: DEVELOP INTERACTIVE WORKSHOPS FOR PRESENTATION AT EDUCATOR PROFESSIONAL DEVELOPMENT CONFERENCES USING AEROSPACE-RELATED MATERIALS AND CURRICULA TO BUILD CAPABILITY FOR FOSTERING STUDENT INTEREST IN STEM FIELDS.

STEM Educator Workshops

- Classroom Laboratory at the Edge of Space: Introducing the Mini-Cube Program. 4 hours
- Teaching Human SpaceFlight in the Secondary Classroom 2 hours
- What is an Aerospace Technician? 2 hours (Late Spring 2017)
- Both courses are taught by author Gregory N. Cecil, M.A.S. of AeroSTEM Consulting LLC



GOAL #4: WORK WITH COMMUNITY-BASED ORGANIZATIONS TO COORDINATE SPACE-RELATED EVENTS APPROPRIATE TO PRIMARY SCHOOL STUDENTS WHICH EDUCATE AND EXCITE.

www.Schools-to-Space.com

- Website developed and now online as a space education resource/portal for both teachers and students.
- Various games and activities are being developed for students that introduce them to the role of an aerospace technician such as:
- Paper rockets launched by a pneumatic tube system has been used for years by SpaceTEC®. Plans for construction of the system will be available on the Schools-to-Space website.
- Build your own Satellite! Can be edible or non-edible!



RESOURCES AND CONTACTS

SpaceTEC[®] : www.spacetec.org

321-730-1020

info@spacetec.org

Schools-to-Space[®] : www.Schools-to-Space.com

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