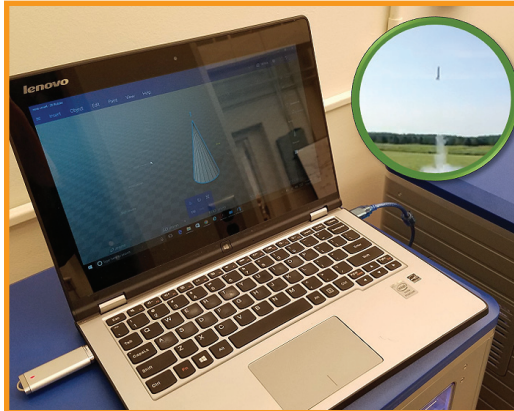


Advanced Career News

AUGUST 2017

Advanced Career Aerospace Engineering Teachers Fly High at Summer Training



AC Aerospace Engineering teachers design, test and 3-D print a nose cone for a rocket using National Instruments LabView and Siemens Solid Edge CAD software. (Upper right: Inset photo is the actual rocket being launched.)

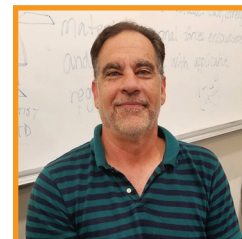
It's a bird! It's a plane! No, it's a rocket designed and launched by high school teachers. They were participating in the Southern Regional Education Board's (SREB's) Advanced Career (AC) Aerospace Engineering Summer Teacher Training Institute (STTI). It's not the only airborne craft that could be seen soaring across the Georgia sky. Teachers participating in the STTI, hosted by the Georgia Institute of Technology (Georgia Tech), designed, built, tested and launched model gliders, planes and kites too!

The AC Aerospace Engineering STEM (science, technology, engineering and mathematics) Pathway Academy curriculum was developed by SREB and Alabama as a part of a multi-state consortium to improve student learning in career and technical education in this country and increase opportunities for student success after high school.

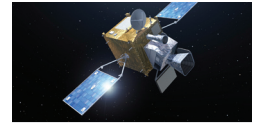
Today, 19 schools in nine states have adopted the AC Aerospace Engineering curriculum. AC teachers are required to participate in a two-week STTI for each AC course they will teach. The training prepares teachers to:

- use a project-based, student-centered approach to teaching;
- use the required technology and software to complete student projects and assignments; and
- develop skills for using formative and summative assessments to improve both instructional methodology and student learning.

In July, Georgia Tech hosted AC Aerospace Engineering teachers as they prepared to teach the SREB curriculum this school year. Glen Kirk, a general science teacher at Early College High School in Roswell, New Mexico, is excited to teach this course and introduce his students to aerospace engineering projects. "This course is project-based learning with an emphasis on literacy, math and science. In addition, computer-aided design (CAD) software is not only introduced, it is implemented. My students will respond with enthusiasm to these projects," he says.



Glen Kirk



Aerospace Engineering



Automated Materials
Joining Technology



Clean Energy
Technology



Energy and Power



Global Logistics



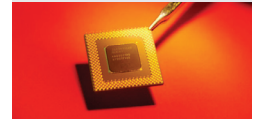
Health Informatics



Informatics



Innovations in Science
and Technology



Integrated Production
Technologies



Oil and Gas

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Vincent Prince, who teaches aviation history and aviation careers at DuVal High School in Lanham, Maryland, is also looking forward to offering the curriculum to his students. “This STEM-based course is focused on preparing students for college and the 21st-century workforce. It will attract and retain students desirous of pursuing careers in aviation-aerospace engineering design and technology. It will capture the interest of some students who may have the mechanical acumen, but who are not quite focused on the pathway to aviation or aerospace engineering,” he states.



Vince Prince

Both teachers feel the STTI has prepared them to teach the first course of the four-course AC curriculum. Prince says, “My personal experience and journey through the AC Aerospace Engineering STTI has been extremely challenging, yet rewarding. I was exposed to a vast compilation of professionals who possess a variety of aviation experience or who have used the Solid Edge and LabView software we use in class. With the help of the SREB academic and technological teams and my fellow team members, I was able to grasp the technology and apply many of the concepts I was afraid to tackle.”

Kirk mirrors those sentiments, “The overall STTI experience was wonderful. The training, materials, access to equipment and support of Georgia Tech’s aerospace engineering program faculty and staff resonated excellence. I felt overwhelmed as I discovered that some of my fellow classmates were pilots, college physics instructors and engineers. Fortunately, those classmates were more than willing to help and guide. Furthermore, Georgia Tech’s facilities, equipment and personnel were remarkable. The partnership between SREB and Georgia Tech is one that works.”



Bill Vivian

Bill Vivian, an AC STTI master teacher and Sun Valley High School AC Aerospace Engineering teacher asserts, “When I first trained at the STTI, the program was not as fine-tuned as it is today. That’s what I like about SREB. They provide updates and immediately address your needs. The teachers I coach through the STTI and the students I teach in the classroom have access to the most up-to-date curriculum and technology.”

AC STEM Pathway Academy Curricula

SREB’s 10 AC curricula fuse a rigorous academic core with challenging project work and advanced technology in high-demand career pathways.

Visit sreb.org/advanced-career to learn more about the following pathways: (Click on a title to view or download a program brochure.)

- Aerospace Engineering
- Automated Materials Joining Technology
- Clean Energy Technology
- Energy and Power
- Global Logistics & Supply Chain Management
- Health Informatics
- Informatics
- Innovations in Science and Technology
- Integrated Production Technologies
- Oil and Gas

To learn how your school can offer one or more AC STEM Pathway Academy curricula in the 2018-19 school year, contact:

- Gene Bottoms: gene.bottoms@sreb.org
- Zachary Riffell: zachary.riffell@sreb.org or (850) 879-5539
- Jim Berto: james.berto@sreb.org or (404) 879-5528
- Dale Winkler: dale.winkler@sreb.org or (859) 608-5926



AC Aerospace Engineering Course II teachers Christy McKenzie and Natalie Campana build a plane.

Has your school adopted or does it plan to adopt an AC curriculum?

If so, attend the AC Fall Planning Retreat in Jacksonville, Florida, October 15-17, 2017.

Visit www.sreb.org/event/fall-planning-retreat to learn more.