

Giving Children WINGS

By Tami Althoff

OU's Sooner Flight Academy has connected kids with the world of flight for nearly three decades.

Jace Bonsu crouches beneath one of the University of Oklahoma's Piper Warrior airplanes at a hangar at Max Westheimer Airport. He's trying to get a closer look at the plane's tire. He reaches out with his hands, squeezes the round piece of rubber and declares, "It needs more air. It's squishy like a pom-pom."

Bonsu was participating in a pre-flight check, one of the many hands-on activities that are part of Sooner Flight Academy summer camps offered for students ages 6 to 18. Held annually, the OU camps offer curious students a first-hand look into the world of aviation. Bonsu traveled all the way from Arizona to attend the Sooner Flight Academy, or SFA.

"Airplanes are one thing I always wanted to learn," says the 6-year-old before joining a group of other young children to get a close-up look at a fuel truck.

He and his new friends pinch their noses tightly between their fingers.

"It stinks!" they cry in unison.

After a quick lesson about fuel, with a demonstration showing that fuel and water don't mix, the excited campers

line up to look inside an airplane and sit in the cockpit.

Dawn Machalinski, SFA program manager, has been with the academy since 2006. She says the weeklong, immersive camps give children the opportunity to explore science, technology, engineering and math (STEM) as it relates to flight, all from an age-appropriate perspective.

Bonsu and his classmates were in the Penguin session, which teaches the youngest aviation enthusiasts about flight using objects they're familiar with, such as insects and birds. They explore the physics of flight by flying kites and building rockets.

Once a camper turns 8, they join the Cardinals class, and the curriculum goes deeper. Students learn about weather, electricity and communication. Campers build small terrariums that start the water-cycle process, giving them a firsthand look at the effects of evaporation, condensation, precipitation and collection.

"We keep the kids' attention by offering hands-on activities throughout the day that engage their natural curiosity and desire to build and explore," Machalinski says, adding that scholarships are available to make SFA available for most children.





Erikah Brown

“We also learn silly songs and actions that help us remember Newton’s Laws of Motion and fun poems to remember Bernoulli’s Principle behind fluid dynamics.”

The 8-year-olds’ attention is riveted during an orientation flight in one of OU’s fleet of Piper Warriors, piloted by certified flight instructors with OU’s School of Aviation Studies.

“I see a change in many of the children after their flights, a rite-of-passage moment, if you will,” Machalinski says. “Young people need those moments to recognize their own growth.”

The curriculum goes more in depth as students enter the Condor and Eagles levels, where topics include space science, aircraft design and more.

“Each camp has a different theme that ensures learning new material every year of camp. Many campers return for 10 years in a row,” Machalinski says.

Ashley Chrisman works as a “navigator,” or counselor, for SFA. She’s also a camp alumnus.

“I started going when I was 6, and I went every year until I hit the 10-year mark. After that, I interned as a navigator,” she explains. “I think the thing that really kept me coming back

was all of the different activities that we get to do. Each year is different.”

Chrisman says the pinnacle of the camp is reaching the Eagles level for ages 14 to 18, when students get to actually fly a plane. At this point, many campers have already made plans to enter aviation-related careers, so the curriculum focuses on leadership and other advanced topics.

“Flying is such a cool part of doing the camp, and when you know you get to fly, you keep going back year after year,” she says. “The oldest kids actually get to do touch-and-goes, so they get to come in, land and take back off. It’s something that always kept me coming back every year.”

While flying is the ultimate goal of many campers who see themselves as future pilots, there’s plenty more to be learned by those who never want to leave the ground. Campers begin experiencing other aviation careers through play-acting at the mock “Scissortail Airlines.”

“We have different stations the kids go to—security, maintenance, ramp personnel, air traffic controllers, flight attendants—they love it,” Chrisman says. “They get to see that



Even the youngest Sooner Flight Academy campers experience sitting in the cockpit of an airplane.



Dawn Machalinski, Sooner Flight Academy program manager, says that each camp has a different theme to ensure students learn new material every year.

there's more to aviation than just flying."

Chrisman, 28, says the camp sparked her own interest in engineering. She began attending engineering camps, joined a robotics team in high school and even majored in engineering at OU before switching to public relations and earning a 2017 degree.

"I never would have done those things if I hadn't gone to Sooner Flight Academy," she says. "There's so much you can do in aviation. A lot of Sooner Flight Academy alumni have gone on to do really awesome things. Many people who attend the camps are very successful later in life."

Now, Chrisman enjoys coming back each summer to share what she's learned with a new generation of future leaders.

"It really is just so much fun to watch them learn and to see their faces light up when they learn something new," she says. "It's such a cool experience. At the beginning of the week, a lot of them don't know anything about engineering or aviation, and by the end of the week they can recite the phonetic alphabet and tell you the different parts of the planes."

Daylen Gipson, a private pilot majoring in aviation at OU, also honed his interest in aviation at the SFA. Gipson began attending the camp at age 13.

"I have always been fascinated when it comes to aviation. I attended many events, summer camps and museums to learn more about aviation; one of my favorites was Sooner

Flight Academy," Gipson says. "Every day was an engaging or leadership activity that dealt with aviation. I learned a lot that I would not have known otherwise."

Gipson is also involved in "pathway programs" that OU's School of Aviation Studies has established with airlines. Students are guaranteed a job after meeting certain requirements, and Gipson hopes his involvement will help launch an aviation career.

"It's all been an awesome experience so far, and I can tell you that Sooner Flight Academy prepares you for your years at OU's flight school," he says.

Machalinski says although SFA has been around for nearly three decades, it's becoming more and more relevant for people like Gipson.

Aviation is the second-largest industry in Oklahoma, she points out, and with a new Oklahoma Aviation Academy for high school students opening this fall in Norman, there are increasing opportunities for students interested in aviation and aerospace to prepare for lucrative careers beginning at a young age.

"If you wait until youth are entering college or even high school to get them interested in aviation, they may miss taking the kinds of courses in middle school and high school that set them on the right trajectory for STEM careers," says Machalinski. "Inspiring children and youth early can lead to better decision-making—not only in

Elijah Brown



Navigator Ashley Chrisman (right) shows campers how to tap fuel.

Sooner Flight Academy



An Oklahoma educator gets a lesson on how to use the Sooner Flight Academy app, which allows students to fly and land a virtual plane in a space as small as a school gym.

Sooner Flight Academy



Campers learn to fly a plane under certified flight instructors after reaching the Eagles level for ages 14 to 18.

scholastics, but in life—that will help them once entering high school and higher education.

“Many of our campers are applying to the new aviation high school program, and many more will because of the inspiration received through attending SFA camps and field trips that spike or add to their interest.”

While hundreds of kids turn out each year for OU’s summer aviation camps, as many as 2,000 more get a dose of STEM-based fun through SFA’s year-round programming, which includes field trips to Max Westheimer Airport and community-based “fly-in” programs that bring STEM experiences to schools, camps and community events across Oklahoma.

SFA extended that reach even further last year through a little digital magic. Collaborating with outside vendor Trifecta Communications, the team created an educational, augmented reality app. The Sooner Flight Academy app allows users to explore and interact with a life-sized OU “airplane” using a smartphone or tablet. The app is the first of its kind, free to download and available for both iOS and Android devices.

“The app has been a good tool to bring life-sized aircraft into the presence of children when outside of the airport,” Machalinski says. “The younger students are mystified by the plane being so large and lifelike, and the older students feel right at home with the virtual experience. The connection is immediate.”

She hopes as aviation and aerospace continue to grow in

Oklahoma, so will interest in their programs when SFA, along with the OU School of Aviation Studies, moves from the OU College of Professional and Continuing Studies to the College of Atmospheric and Geographic Sciences this fall.

“It’s a perfect fit in that aviation is all about exploration and discovery,” she says. “How the atmosphere and phenomena that affect the globe must be considered when putting an aircraft into the atmosphere—that’s what we want to explore with our students.

“We all want to learn by doing. At SFA, we learn about flight, and then we do it. We hope to welcome more and more children to our programs and continue to grow all aspects of STEM in fun, hands-on ways that will help children enjoy learning.”

Chrisman says she’ll keep returning as a navigator to further that message as long as she’s welcome.

“Sooner Flight Academy is just such an amazing place to work. It’s so much fun, and it’s a great atmosphere with people from all different backgrounds and interests,” she says. “For anyone who loves to help kids learn while having fun, there’s no better place.”

To learn more about the Sooner Flight Academy and its programs, visit pacs.ou.edu/flightcamp.



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