

WPAFB Educational Outreach Free K-12 Programs

The WPAFB Educational Outreach Office was established in 1999 to spark student excitement and enthusiasm in **S**cience, **T**echnology, **E**ngineering, **M**athematics, and aviation in hopes they pursue STEM-related studies and career paths.

Over the past 19 years, WPAFB personnel have had a direct impact on over 600,000 local K-12 students through programs that range from classroom visits and one-on-one job mentoring to tutoring young students on reading fundamentals.

Recognizing the need to inspire students toward science and technology, the WPAFB EO Office has

been leading the way for many years. To date, over \$35 million in free educational programs have been provided to the local area. In addition, WPAFB volunteers donate over 7,900 volunteer hours each month to support educational outreach!

Local classroom teachers, like you, have come to rely on the many free services our office and educational partners offer. The Air Force celebrates *Bright Horizons 2.0*—the national initiative promoting STEM education and a strong, future workforce.

Will you please consider joining us as we pave



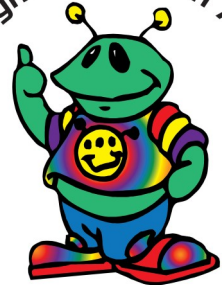
the way for your students to experience brighter horizons?

About Us

Our mission is to facilitate partnerships with the kindergarten - 12th grade educational community to increase student awareness and excitement in all fields of math, science, aviation and aerospace in order to develop our nation's future scientific and technical workforce.

Our goal is to be the best one-stop resource for encouragement and enhancement of K-12 science, math, and technology education throughout the Air Force...the world...and beyond!!

Wright-Patterson AFB



Educational Outreach

wpafbstem.com

EO Stats:

- 600,000+ locals students impacted
- \$35+ mil. in educational programs
- 7,900+ volunteer hrs. donated/month
- 25k+ teachers impacted




<https://www.facebook.com/>





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K-12 STEM Programs

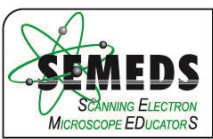
- ◆ **Wizards of Wright (WOW!)**
- ◆ **WOW! on Wheels**
- ◆ **Teacher Workshops**
- ◆ **STARBASE**
- ◆ **STARBASE 2.0**
- ◆ **SEMEDS**
- ◆ **Science Fair Judges**
- ◆ **FIRST LEGO League (Robotics)**
- ◆ **FIRST LEGO League Jr.**
- ◆ **FIRST Robotics Competition**
- ◆ **Job Shadow Day**
- ◆ **Academic Tutors/Mentors**
- ◆ **Classroom Speakers**
- ◆ **LEGACY**


WIZARDS OF WRIGHT (WOW!) - WPAFB Educational Outreach Office	
	<p>Wizards of Wright (WOW!) Program - If you would like help motivating your students in science, technology, engineering, or math, this program is for you. WOW! volunteers take a variety of STEM related demos out to local schools for free hands-on lessons. There are many different demos currently available with new ones on the way!</p> <p>WOW! welcomes the opportunity to send wizards to YOU! Please visit our website to see what Demos are available, and to request a Wizard visit.</p> <p>wpafbstem.com</p>
When:	On-going
Grade Level:	All K-12 grades but emphasis on Elementary/Middle School standard topics
Location:	Local area
Time Requirement:	Subject to availability of "Wizards"
How to Apply:	For more information contact Angel Callahan. Email: antoINETTE.callahan.ctr@us.af.mil or phone 937-938-4868


WIZARDS OF WRIGHT (WOW!) ON WHEELS - WPAFB Educational Outreach Office	
	<p>WOW on Wheels is a free program for all teachers. Many STEM related materials and demo kits are available for teachers to borrow and use in their classrooms.</p> <p>Please visit our website to see what's available and request the materials you need.</p> <p>wpafbstem.com</p>
When:	On-going
Grade Level:	K-12
Location:	Local area
Time Requirement:	Varies
For More Information:	For more information contact Angel Callahan. Email: antoINETTE.callahan.ctr@us.af.mil or phone 937-938-4868

TEACHER WORKSHOPS	
	<p>WOW Your Students with STEM Workshop focuses on providing hands-on lesson ideas with an emphasis on STEM content for teachers. The workshop is designed to highlight the many STEM resources available.</p>
When:	June, July, or August
Grade Level:	K-12
Location:	varies
Time Requirement:	Course dependent
How to Apply:	Please check our website in early Spring for dates and sign-up information. wpafbstem.com For questions contact Angel Callahan. Email: antoINETTE.callahan.ctr@us.af.mil or phone 937-938-4868


	STARBASE, Wright-Patt
	STARBASE Wright-Patt is a Department of Defense (DoD) program serving the Dayton, Ohio community by offering 5th grade students an opportunity to participate in 25 hours of hands-on learning experiences designed to increase interest and knowledge of STEM. Wpafbstem.com
When:	August-May
Grade Level:	5 th grade
Location:	STARBASE, Wright-Patt
Time Requirement:	Based on mutual scheduling availability
How to Apply:	Contact: Jennifer Elfritz WPAFB Educational Outreach Office Email: jenstarbase@gmail.com or phone 937.656.8673


	SEMEDS – Scanning Electron Microscope Educators
	SEMEDS - is a unique program that brings local students and their teachers to Wright-Patterson Air Force Base (WPAFB) to operate state-of-the-art scanning electron microscopes in a real life laboratory setting. This motivating educational outreach program is conducted by volunteers from across WPAFB and is sponsored by the Air Force Research Laboratory Materials and Manufacturing Directorate. Wpafbstem.com
When:	The teacher orientation meeting is TBD.
Grade Level:	All K-12 Grades (mostly middle/high schools)
Location:	WPAFB, Area B, Bldg. 653
Time:	Sessions run from 4:30-6:30 p.m. (twice a month)
How to Apply:	Contact: Kim Stultz, WPAFB Educational Outreach Office Email: Kimberly.Stultz.ctr@us.af.mil or phone 937.938.4861



	Need Judges?? - Many scientists, engineers and other professionals from WPAFB volunteer their time to judge projects at local science fairs. It's a wonderful way to help groom the technical workforce we need for the future and to let your students interact with professionals who actually work in the types of careers they may be interested in! wpafbstem.com
Grade Level:	All grades
Location:	Local area
Who to Contact:	Contact: Kim Stultz, WPAFB Educational Outreach Office Email: Kimberly.Stultz.ctr@us.af.mil or phone 937.938.4861


ROBOTICS- FIRST LEGO League Jr.	
	Individuals interested in Student Robotics! WPAFB is the coordinating body for the State of Ohio for the <i>FIRST</i> (For Inspiration and Recognition of Science and Technology) LEGO League Jr., an international educational program for 6-10 year-olds to explore basic engineering concepts while exploring real world themes (www.firstinspires.org).
When:	Nov—April
Grade Level:	K - 4th grade (ages 6-10)
Location:	Statewide
Time Requirement:	Coaching a team requires a minimum of one hour per week. Single day opportunities for volunteers are available at local Expos.
Training Opportunities for Coaches:	Available throughout the state pre-season (July - September). Details here: wpafbstem.com
How to Apply:	For information about the <i>FIRST</i> LEGO League Jr. Program, please contact Kelli at Kelli.Dubendorfer.ctr@us.af.mil or 937.938.4864.

ROBOTICS- FIRST LEGO League - Includes FLL State of Ohio Championship Tournament	
	WPAFB Educational Outreach is the coordinating body for <i>FIRST</i> LEGO League in Ohio. <i>FIRST</i> LEGO League offers opportunities for kids in 4th through 8th grade to learn and apply principles of engineering, communication, problem solving, and teamwork in a competitive and cooperative environment. Throughout the season, teams will design and build a robot using LEGO Mindstorm kits and program these robots to accomplish missions on a field of LEGO obstacles. Additionally, teams will conduct a full PBL project centered on solving a problem within an annual theme (Many teams even invent their solutions!) wpafbstem.com
When:	Nov-Dec Regional Events Jan 2019 District Events Feb 2019 State Championship
Grade Level:	4 th - 8 th Grades (ages 9-14)
Location:	Statewide
Time Requirement:	Varies by volunteer commitment. Coaching a team requires a minimum of two hours per week. Single day opportunities for volunteers are available at local tournaments.
Training Opportunities for Coaches:	Available throughout the state pre-season (July - September). Details here: wpafbstem.com
How to Apply:	For information about the FLL Program, please contact Brenda Ronnebaum at Brenda.Ronnebaum.ctr@us.af.mil or 937.938.4862.

ROBOTICS- FIRST Robotics Competition	
	<i>FIRST</i> Robotics Competition is the “Varsity Sport for the Mind.” It is an international high school robotics competition. Each year, under strict rules and limited resources, teams of high school students and mentors, from around the world, have just six weeks to build and program a robot, usually weighing up to 120 lbs (depending on the game), to perform challenging tasks against a field of competitors. These teams must also raise funds, design a team "brand," hone teamwork skills, and perform community outreach. In addition to learning valuable STEM and life skills, participants are eligible to apply for \$80+ million in college scholarships. It is truly a sport where every person can go pro!
When:	Build season is Jan-Feb Competition season is Feb-May
Grade Level:	9-12th grades
Location:	Local teams—Regional Competitions
Time Requirement:	Varies by volunteer commitment - Coaching a team is intensive for 6 week build season. Single day and weekend opportunities for volunteers are available at local tournaments.
How to Apply:	For more information about teams or volunteering contact: Katie Dunn at Katherine.dunn.1.ctr@us.af.mil or 937.938.4642

JOB SHADOW DAY - High School Juniors and Seniors	
	The WPAFB Educational Outreach Office sponsors a Job Shadow Day for high school juniors and seniors twice a year, once in the spring and once in the fall.
When:	2018 Fall Job Shadow Day: October 26, 2018
Grade Level:	High School Juniors and Seniors
Location:	National Museum of the US Air Force and Mentor's Job Site
Time Requirement:	Approximately 8:30 a.m.–2:30 p.m.
What Career Fields are Offered:	The career fields all depend on the mentors who sign up. The list of careers will be available when the registration form is sent out to the schools in September. http://wpafbstem.com/pages/k12_jobShadow.html
How to Apply:	Contact: Kim Stultz, WPAFB Educational Outreach Office, Email: Kimberly.Stultz.ctr@us.af.mil or phone 937.938.4861

CLASSROOM SPEAKERS and ACADEMIC TUTORS /MENTORS	
	WPAFB employees are available to share their expertise, job information, or an area of interest with local students in a variety of settings to include school career days.
	WPAFB Educational Outreach Office often receives requests from base employees looking for opportunities to be academic tutors /mentors to assist students in various subjects and projects.
When:	On-Going
Grade Level:	All K-12 Grades
Location:	Local Area
Time Requirement:	Varies with need and availability of individual volunteers.
How to Apply:	Contact: Kathy Emrick, WPAFB Educational Outreach Office Email: Katherine.Emrick.ctr@us.af.mil or phone 937.938.4860

LEGACY	
	The Air Force LEGACY program is dedicated to everyday students by building an interest in STEM through free hands-on summer camps and developing research and professional skills during paid apprenticeships. Students are mentored as they graduate through each phase of the program.
When:	Summer 2019
Age:	Camp: 11-15 year olds; Jr. Apprentice: must be 16 yrs as of June 1st
Location:	Wright-Patterson Air Force Base
Time Requirement:	Camp: 1 week; Jr. Apprentice: 6-8 weeks
How to Apply:	Website: Applications will be available in January 2019. http://wpafbstem.com/pages/legacy.html