



UNITED STATES
AIR FORCE ACADEMY

USAFA K-12 STEM Outreach Program Newsletter

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USAFA and AF STEM webpages

<https://www.usafa.edu/stem-outreach/>

<http://www.usafa.af.mil/>

<https://afstem.afciviliancareers.com/>

USAFA K-12 STEM Outreach Mission

The United States Air Force Academy Science, Technology, Engineering, and Math (STEM) Outreach Program mission is to offer a variety of programs and services that effectively engage, inspire, and attract the next generation of STEM talent.

What does the USAFA K-12 Science, Technology, Engineering, Math (STEM) Outreach Program offer?

Lending Library

Individuals, organizations or groups may check out STEM related equipment for up to an 8 week period. Current items in the STEM Lending Library include Lego Mindstorms EV3 kits and portable spectrometers. Additions to the Lending Library will be made in 2017 and will appear in the STEM Outreach Program Newsletter.

STEM Presentations

When available, Air Force Academy staff and faculty travel to schools and various organizational meetings to present interactive and engaging STEM presentations to include: Chemistry Magic Shows, robotics demonstrations, Physics is Phun, Girls in the Middle, which promotes STEM career awareness to middle school girls; and other informational talks.

Support for local STEM Events

Cadets are permitted to miss one class per semester so daytime event availability is limited. Events after 4:00PM or on Saturdays are easier to accommodate. Cadet clubs supporting STEM outreach include:

- Physics Club - Physics is Phun Shows
- Girls in the Middle events
- STEM Outreach Club
- Robotics Club
- Astronomy Club

USAFA Tours

Visits can be coordinated to support classroom STEM related standards. Some of the tours available include:

- Aeronautics Research Center
- Air Force Cyberworx
- CASTLE Research Center
- Chemistry Research Center
- Computer Science Research Center
- Human Performance Lab
- Physics Research Center
- Space Systems Research Center
- USAFA Observatory

Contact Us

USAFA Office of Research

The Office of Research strives to build a positive relationship with K-12 students and educators and encourage recruitment/growth of future cadets to develop skills implicit to national security and the nation's competitive edge.

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USAFA Sponsored Challenger Learning Center Events

- Sea Perch Design Challenges
- Lego WeDo Robotics Design Challenges
- Summer Camps
- STEM Teacher Professional Development – STEM Boot Camp and monthly eleSTEMary workshops

Cadets Support Lego Robotics Competitions



Cadets from the AFA STEM Outreach Club volunteered as judges at the USAFA sponsored Challenger Learning Center WeDo Robotics competitions. 140 teams of kindergarten-5th grade students competed at the 21C Library in Colorado Springs. Teams created simple machines that moved "Martian rocks."

Local STEM Summer Events



Society of American Military Engineers (SAME) Camps @ USAFA

<http://www.same.org/STEMCAMPS>

June 26 - July 2

STEM Boot Camp for Teachers @ USAFA

<http://www.ccesse.org/Educators/STEMBootCamp.aspx>

July 18-20 (Sold Out)

FIRST Robotics Mentor Leadership Training for Coaches @ USAFA

Apply at firstinspires.org

This 3 day event inspires coaches from all over the United States to be stronger mentors to FIRST robotics clubs.

July 24-26

Challenger Learning Center Student Summer Camps

<http://www.challengercolorado.org/summer-camps.html>

June 5-8 - Mountain View Elementary School

June 12-16 - Challenger Learning Center

June 19-22 - St. Paul Catholic School

June 19-23 - Challenger Learning Center
June 26-29 - Bear Creek Elementary School
June 26-29 - Challenger Learning Center
July 24-27 - Challenger Learning Center
July 31 - August 4 - Challenger Learning Center

Space Foundation - Explore Space Experience

[http:// www.SpaceFoundation.org/ExploreSpace](http://www.SpaceFoundation.org/ExploreSpace)

UCCS Girl Power! STEM Camp

<http://www.UCCS.edu>

Colorado Springs School Full STEAM Ahead

<http://www.css.org/summercamps>

June 12-29

Ages: completed 5th-8th grade

Computer Camp in Minecraft this Summer!

www.programmingcamps.com

Ages 9 and up

Science Playhouse

<http://www.scienceplayhouse.com>

Grades 1-6

3D Design and Printing June 12-16 and June 26-30

Xtreme Engineering June 19-23

STEMTASTIC Camp May 30-June 2, June 26-30 and July 10-14

Game Programming Workshop July 17-21

Robot Warz June 19-23

Green Beret Survival Camp June 5-9 and July 10-14

Young Bot Builders

<http://www.youngbotbuilders.com>

Catamount Institute

<http://www.catamountinstitute.org/education/camps>

Creepy Crawly Safari Ages 6-8, June 5-9 or July 17-21

Outdoor Explorers Ages 9-11, June 12-16 or July 24-28,

Field Science Camp Ages 10-12, June 26-30

Dirt Camp Ages 10-12, July 10-14

Adventure Camp Ages 12-14, June 19-23.

Wilderness Adventure Ages 13-15, July 31- Aug 4.

Rocky Mountain Adventure Ages 13-16, July 10-14





QR Code for USAFA K-12
STEM Outreach page

Cheyenne Mountain Zoo Summer Camp

<http://www.cmzoo.org/index.php/explore-learn/kids-teens/summer-camp/>
Ages 4-17

El Paso County Parks

www.elpasocountynaturecenters.com.
ianwilson@elpasoco.com.

Bear Creek Nature Camps- grades 1- 5 (June 19-23) Full-day camps (June 5-9, July 24-28, and July 31-August 4

Fountain Creek Nature Camps- grades 1-5, (June 12-16, & July 31-August 4) 6th-8th graders (July 10-14).

Fox Run Park Nature Camp-June 26-30

Primrose School of Springs Ranch

www.PrimroseSpringsRanch.com
Ages 5-10

STEMsCO

<http://stemsco.org>

Middle School STEM Professional Development

June 19 & 20

Cyber Professional Development for High School Educators

June 21 & June 22

Student Cyber Day

June 23