



Welcome

Welcome to WinnAero’s ACE Academies, co-sponsored by WinnAero, Laconia Airport Authority and the FAA. The purpose of the Academies is to make students aware of the variety of careers available in the aerospace industry. These activities can only be made possible with strong support and encouragement from the aerospace community throughout New Hampshire. Please let our supporters and sponsors know that their support of youth in aerospace is greatly appreciated.

The Big Idea

When students hear the words “Aviation and Aerospace” they think of pilots and astronauts. The career fields of Aviation and Aerospace include hundreds of careers beginning on the surface of the Earth, extending into the atmosphere and reaching through the solar system to the edge of the universe.

Goals

- To use aerospace activities as the vehicle to demonstrate the interrelationships of STEM subjects: science, technology, engineering, and math,
- To develop an awareness of the variety of careers in the aerospace field,
- To encourage students to explore a variety of aerospace careers,
- To provide hands-on experiences for students as they use technology related to aerospace careers.

WinnAero ACE Faculty

All faculty members are current or retired STEM educators serving the roles of Director and Instructor.

Licensed pilots, Civil Air Patrol educators and other aerospace professionals round out the instructional staff.

Dan Caron, Director, Technology/Engineering Education teacher Gilford High School, NHTEA Teacher of the Year, AFA Teacher of the Year, CAP Teacher of the Year

Jess Cardinal, Instructor, Pre-school and Kindergarten teacher at Elm St. School in Laconia

Andrea Damato, Instructor, Technology Integration teacher at Gilford Middle School, NHAFA Teacher of the Year

Paul Gelinas, Instructor, Technology/Engineering Education teacher at Woodbury Middle School in Salem, NHAFA Teacher of the Year

Zach Glennon, Sim Lab Instructor, Technology Educator at Moultonborough Academy, ITEEA Program Excellence Recipient

Christine Landry, Instructor, Technology/Engineering Education teacher (retired), NHTEA Teacher of the Year

Amber McLane, Instructor, Physical Education & Health Educator Gilford Middle School, NH MSPE Teacher of The Year, SHAPE AED MSPE Teacher of The Year,

Karen Mitchell, Instructor, Science/Math teacher (retired), NHAFA Teacher of the Year, CFI at Laconia Flight Academy.

James O’Donnell, Instructor, Information Technology teacher at Franklin High School, certified STK Instructor

Jenna Reynolds, Instructor, Science teacher at Amherst Middle School, AeroMechanical Engineer (retired)

Robert Rotier, Instructor, Engineering/Physics teacher (retired), Chemical Engineer (retired), NHAFA Teacher of the Year

Julie Sicks-Panus, Instructor, STEM teacher at Plymouth Elementary School, NHTEA Teacher of the Year, NHAFA Teacher of the Year, CAP Aerospace Educator of the Year

Registration Information

Each Academy is designed to accommodate 10 students. Registration is open until an Academy is filled.

Tuition

Half day elementary academies are \$330.
Full day middle school academies are \$600.
Full day high school academies are \$600.
Full day Drone Academy is \$690.

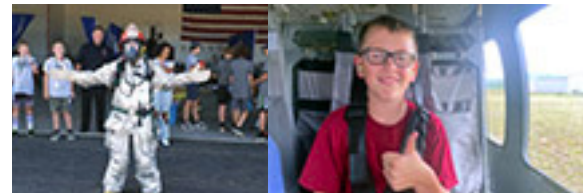
Pictures and testimonials from past participants are on the WinnAero web site under the “Education” pull down menu and on Facebook.

Applications and Tuition information is available at <http://www.winnaero.org/>

We begin awarding Financial Assistance on March 1, 2024 and continue accepting requests until all funds are awarded.

Return Applications to:

**WinnAero ACE Academies
Laconia Airport
65 Aviation Way
Gilford, NH 03249**



WinnAero/FAA



ACE Academies

**Aerospace Career Education
for grades 3 through 12
July 8-12, 2024
July 15-19, 2024**

See inside panels for further information
Financial Assistance available



2023 Middle School Emergency Services at the NH Aircraft Rescue Fire Fighter (ARFF) Training Facility



ACE Academies for 2024

All Academies offer a mix of hands-on work, speakers, and field trips. All Aviation Academies include flight simulation and orientation flights. Groups are divided by career strands. Activities are subject to change due to availability and/or weather.

Four Elementary Aerospace Academies

Grades 3-5; July 8-12; 8:30-12 noon

Grades 3-5; July 8-12; 12:30-4

Grades 3-5; July 15-19; 8:30-12 noon

Grades 3-5; July 15-19; 12:30-4

Students meet for five mornings or five afternoons. Activities at this level are geared to interest students in aviation & space science and technologies. All four sessions will be the same. Please do not register your child for more than one elementary session.

Middle School Girls ONLY Aviation Academy

Grades 6-8; July 15-19; 8:30-4:00

Open to girls participating in ACE for the first time. Some girls can be intimidated by boys when they are in STEM related classes. Female instructors will provide positive role models for the girls as they guide them through a variety of aerospace activities.

Three Middle School Aviation Academy Strands

Students meet for five days. Activities highlight aviation and related careers. Field trips and speakers relate directly to the specified career strand. The following career strands will be offered:

Grades 6-8; July 8-12; 8:30-4

- Pilot and Air Traffic Control
- Pilot and Search/Rescue & Emergency Services
- Pilot and Aerospace Engineering/Manufacturing

Middle School Space Academy

Grades 6-8; July 15-19; 8:30-4

All activities highlight aerospace and related careers. Topics include model rocketry, astronomy and the space environment, spacecraft & space station design.

High School Academies

Students meet for five days. Aviation Academy is recommended for high school students new to ACE Academies. ACE attendance qualifies New Hampshire high school students to earn 1/2 credit toward graduation through the NHDOE Learn Everywhere Program.

High School Aviation Academy

Grades 9-12; July 15-19; 8:30-4

Activities highlight Pilot, Engineering/Manufacturing and related careers. Field trips and speakers relate directly to these careers.

Drone/UAS Academy

Grades 9-12; July 15-19; 8:30-4

Students assemble and fly a small drone. FAA rules and regulations are covered. Flying skills are emphasized.

Systems Tool Kit: Orbital Mechanics, Guidance, Navigation and Control

Grades 9-12; July 8-12; 8:30-4

This session will introduce students to the software used by engineers to control and communicate with orbital spacecraft and terrestrial transportation systems.

Aero-Medical: Effects of High Altitude Flight on the Human the Body

Grades 9-12; July 8-12; 8:30-4

This session will introduce students to the effects of high altitude flight on the human body in Earth's atmosphere and in the micro-gravity environment of space.

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NH Department of Safety, ARFF

NH Department of Transportation, Aeronautics

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NTSB - Plymouth State University

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RDF - Rogue Space Systems, Inc.

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