



### ACE ACADEMY STUDENT/PARENT APPLICATION

Please complete the following information and return to:

WinnAero ACE Academy c/o Laconia Airport

65 Aviation Way

Gilford, NH 03249-6680

603-556-9762

ACE Academy tuition for 2024 is:

\$330 for elementary sessions

\$600 for middle & high school sessions

\$690 for Drone Academy sessions

A \$50 Registration Fee must accompany this form and will be applied against the cost of tuition.

Checks should be made payable to *WinnAero*.

Circle the session you wish your child to attend.

Week 1: July 8-12, 2024	Elem Mornings-E11	MS Air Traffic Control-M13	MS Emergency Services-M14
	Elem Afternoon-E12	MS Eng. & Manufacturing-M15	HS Systems Tool Kit (STK)-H17
		HS Aero-Medical (effects of high altitude)-H16	

Week 2: July 15-19, 2024	Elem Mornings-E23	MS Space Academy-M26	MS Girls Only-M25
	Elem Afternoons-E24	HS Eng. & Manufacturing-H28	HS Drone Academy-H29

#### Student Information

Name \_\_\_\_\_

Home address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Home phone number \_\_\_\_\_

#### Parent/Legal Guardian (circle one) Information

Name \_\_\_\_\_

Home address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Home phone number \_\_\_\_\_

Cell number \_\_\_\_\_

Work number \_\_\_\_\_

E-Mail address \_\_\_\_\_

#### Student Personal Information

Age \_\_\_\_\_ Grade \_\_\_\_\_

Circle Tee Shirt Size Youth S Youth M Youth L Youth XL Adult S Adult M Adult L Adult XL

Date of birth \_\_\_\_\_

Career goals \_\_\_\_\_

US Citizenship (circle) YES NO (Citizenship may affect eligibility to participate in certain field trips. Alternative activities will be scheduled in these cases.)



## Program Descriptions

### Elementary Aviation Academy Descriptions 2024

#### Entering Grades 3-5 or Ages 8-10

Elementary students meet for five morning sessions, 8:30 - 12:00 or five afternoon sessions, 12:30-4. Activities at this level are geared to interest students in aviation & space science and technologies. Students will “fly” the flight simulators, receive an orientation flight and participate in a field trip. All sessions are the same. Please select only one session.

### Middle School Academy Descriptions 2024

#### Air Traffic Control, Emergency Services, Aerospace Engineering & Manufacturing.

#### Entering Grades 6-8 or Ages 11-13

These three academies are designed for middle school students and will be grouped by career interest. All academies will highlight piloting careers with students working in the flight simulator lab, flying orientation flights with an instructor in a single engine aircraft and other aviation activities. Guest speakers and field trips\* are planned specifically for the career group the student selects: Air Traffic Control, Emergency Services, Aerospace Engineering & Manufacturing.

#### Girls Only (recommended for girls new to ACE)

#### Entering Grades 6-8 or Ages 11-13,

Research has shown that many middle school girls remain quiet when boys are in the same STEM class. This session will provide girls with an opportunity to work with other like-minded individuals. Female instructors and guest speakers will provide positive role models for the girls so they can picture themselves in aerospace careers later in life. This session will be very similar to the regular coed middle school session for manufacturing/engineering described above.

### Space Academy 2024

#### Entering Grades 6-8 or Ages 11-13

This session is designed for students interested in rocketry and space exploration. All activities highlight aerospace and related careers. Planned activities include: model rocketry (designing, building, safety and launching), astronomy and the space environment, spacecraft & space station design, current NASA missions, field trip\* and guest speakers.

### High School Academy Descriptions 2024

#### Learn Everywhere NH High School credit

Upon successful completion of any high school ACE Academies session, New Hampshire high school students can receive ½ credit for a science elective on their transcript. Students will receive a NH Learn Everywhere certificate to present to their school Counseling office.

#### High School Aviation Academy (Engineering/Manufacturing)

#### Entering Grades 9-12 or Ages 14-18



This academy is designed for high school students attending ACE for the first time. Piloting careers are highlighted with students working in the flight simulator lab, flying orientation flights with instructors in a single engine aircraft and a small helicopter. Guest speakers and field trips\* are planned specifically for the career Aerospace Engineering & Manufacturing.

**Drone Academy: Unmanned Aerial Systems (UAS)**

**Recommended for Ages 16-18 or students with previous ACE or Civil Air Patrol experience**

This session is designed to introduce students to FAA UAS regulations and provide experience building and flying a small UAS/drone. Students will participate in orientation flights with instructors in a single engine aircraft and a small helicopter. Guest speakers and field trips\* are planned specifically for the career as a UAS pilot.

**High School, Systems Tool Kit (STK): Orbital Mechanics, Guidance, Navigation and Control**

**Recommended for Ages 16-18 or students with previous ACE or Civil Air Patrol experience**

This session will introduce students to the software used by engineers to control and communicate with orbital spacecraft. This is a rapidly growing field as commercial space operations ramp up and more spacecraft constellations are placed in orbit. If there is a demand, more advanced sessions will be offered.

**High School, Aero-Medical: Effects on High Altitude Flight on the Human Body**

**Recommended for Ages 16-18 or students with previous ACE or Civil Air Patrol experience**

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. Students will become familiar with research and experimentation by the FAA, NACA, and the NASA NeuroLab Mission STS 90.

\*Participation in some field trip locations require students to hold US Citizenship. (Email for details)

All activities are based on prior ACE Academy schedules and are subject to change. Orientation flights conducted by other than ACE staff, (e.g, NHNG, Laconia Flight Academy) are subject to their scheduling priorities and are not guaranteed by the ACE Academy staff.