STEM CURRICULUM & CERTIFICATION

USI DESIGNED ITS STEM CURRICULUM, INDUSTRY CERTIFICATION AND CAREER DEVELOPMENT SPECIFICALLY FOR **PARTNERS IN K-12, COLLEGES, AND UNIVERSITIES**
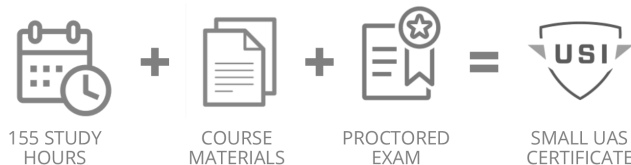
The Unmanned Safety Institute (USI) is a worldwide leader in aviation safety and provider of drone curriculum and industry certification to the academic marketplace. USI has employed its UAS safety programs in over 75 school, trained over 1,500 students, accepted by the FAA as an approved training provider, and recognized by the leading aviation insurance providers, including USAIG and Global Aerospace.

The Unmanned Safety Institute achieves its education and training mission with the foundation of three key objectives: human factors, technology reliability, and building safe organizations.

SMALL UAS SAFETY CERTIFICATION IS DESIGNED TO SET A **SAFETY-INSPIRED FOUNDATION** FOR ANY UAS LEARNER

USI's *Small UAS Safety Certification* is dedicated to providing learners a solid platform of FAA-outlined aeronautical knowledge, coupled with UAS technologies, theoretical concepts, and safety practices to ensure all participants are responsible remote pilots ready to lead the UAS industry.

In order to achieve the USI certification, applicants must complete 155 study hours, required course materials, and pass a proctored exam.

155 STUDY HOURS + COURSE MATERIALS + PROCTORED EXAM = SMALL UAS CERTIFICATE

HIGH-LEVEL COURSE OBJECTIVES FOR LEARNING SUCCESS

1. UNDERSTANDING SYSTEMS
2. RESPONSIBLE OPERATORS
3. OPERATIONS PLANNING
4. HUMAN FACTORS & CRM
5. IDENTIFYING HAZARDS
6. AERONAUTICAL DECISION MAKING
7. DEALING WITH EMERGENCIES

QUICK FACTS

According to the FAA, it is predicted that 400,000-2.3 million licensed Part 107 remote pilots will exist by 2020, and USI has prepared its curriculum to respond to this clear workforce demand:

- USI has been offering its *Small UAS Safety Certification* to over 75 high school

- 75+ high school teachers have been credentialed with a curriculum license

- More than 1,500 students have been taught the DOE-approved curriculum

- Students who earn the *Small UAS Safety Certification* also earn college credit at Embry-Riddle University

- Complete 155-content hour certification program comprised of four (4) college-equivalent courses

- USI's certification is helping create career pathways and workplace development as qualified remote pilots

> **The FAA estimates that there could be as many as 2.3 million new commercial drone pilots by 2020.**
>
> -FAA Air Traffic Organization Policy: Order JO 7200.23

THE SMALL UAS SAFETY CERTIFICATE REVOLVES AROUND **FOUR MAJOR THEMES** THAT ARE DERIVED FROM THE LESSONS LEARNED IN TRADITIONAL AVIATION.

Each of these themes are explored in separate units and sequenced in order to develop a learner's competency in the field of Small UAS aviation safety:

- Capabilities and limitations of the technology to include hardware and software
- Environment in which UAS technology will be applied, both physical and political
- Capabilities and limitations of human remote pilots and become a responsible member of the aviation community
- Concept of safety and the role of managing risk and organizational decision-making

UNMANNED AIRCRAFT SYSTEMS

Explores the key technology used in Unmanned Aircraft Systems to give the learner a deeper understanding of how the Unmanned Aircraft are able to navigate and perform amazing tasks.

This unit focuses on the three major physical components of a UAS to include the unmanned aircraft, the payload, the control station.

UAS APPLICATIONS

Examines how unmanned aircraft are used to accomplish a variety of tasks in a complex environment.

This unit focuses on how remote pilots apply UAS technology for commercial, scientific, and government purposes while respecting both the physical and regulatory limits.

UAS PERSONNEL

Examines the limits and skills employed by professional remote pilots in trapping and mitigating errors.

This unit focuses on human error and management skills used to detect and stop errors during the day-to-day execution of remote pilot tasks.

UAS SAFETY MANAGEMENT

Introduces line remote pilots to a management system and culture that is at the heart of the traditional aviation industry.

This unit focuses on the four pillars of a safety management system to include: safety policy, safety risk management, safety assurance, and safety promotion.

EMBRY-RIDDLE

USI is officially partnered with Embry-Riddle Aeronautical University to provide accredited STEM education in UAS safety to over 75 high schools throughout Florida

FLORIDA EDUCATION

USI is the only UAS educational organization that is recognized by the Florida Department of Education

GLOBAL AEROSPACE

USI is the official UAS safety provider to the Global Aerospace SM4 Safety Initiative

FAA

USI is the only UAS educational organization that is accepted by the FAA to provide official UAS training

ABOUT UNMANNED SAFETY INSTITUTE

The Unmanned Safety Institute (USI) is the industry's most widely recognized leader in flight safety solutions for individuals, enterprises, and organizations focused on integrating and operating Unmanned Aircraft Systems (UAS) for civil or commercial purposes. The Unmanned Safety Institute, widely recognized as "best-in-class" provides UAS flight safety training and certification to operational standards based on the adoption and modification of time-honored aviation safety practices. USI is a portfolio company of ARGUS International, Inc.

Other ARGUS subsidiaries include ARGUS PROS, a leading provider of on-site safety audits; PRISM, a worldwide leader in Safety Management System (SMS) and Certification services. Founded in 1995, ARGUS is headquartered in Cincinnati, Ohio, and actively engaged around the globe.