

Community Emergency Response Team (CERT) Basic Training

CERT Basic Training is a foundational course that provides new CERT volunteers an overview of different types of emergencies and shares ways teams can provide response and assistance. The curriculum covers topics in disaster preparedness, fire, medical operations, search and rescue, and team building. This course is great to have from the perspective of individual and family preparedness even if you do not eventually join an organized CERT team.

Part 107 Ground School

This course will prepare students with the knowledge items specified in the Federal Aviation Administration (FAA) Airmen Certification Standards (ACS) for the remote pilot certificate with a small unmanned aircraft rating. During the course, students will also develop psychomotor skills operating the Skydio X2 DoD/FL DMS approved sUAS. NOTE: FAA certification exam must be taken separately at an approved testing center.

Skydio Training

This course is for already certificated Part 107 remote pilots on the Skydio X2, which is a DoD/FL DMS approved quad-copter equipped with electrooptical and thermal cameras. The course will cover pre-flight checks, manual operations, basic autonomous flight functions, and post-flight procedures.

Censys Sentaero 5 Training

This course is designed for experienced remote pilots who are prepared for extended flight time and beyond line-of-sight operations. The Sentaero aircraft is capable of 90-minute flight times and can provide live thermal and electrooptical feeds back to the ground control station, which can then be transmitted to other locations when internet service is available.

Trinity F90+ Training

This course is designed for experienced remote pilots who are prepared for extended flight time and beyond line-of-sight operations. The Trinity is a long-range mapping platform with orthophotography and LiDAR payload packages.

Basic Sonar / EMILY Sonar Training

This course prepares students to perform field and post-processing analysis of side-scan sonar data recordings, generate sonar object reports, and export scan missions as a GIS-readable raster file. Specific equipment and software used includes the EdgeTech4125i Towfish, EMILY Sonar Autonomous Small Boat, EdgeTech Discover, and SAR Hawk.

Outland ROV 1000 Training

After taking this course, students will know how to set-up and operate the Outland ROV 1000, which is a tethered ROV capable of diving to depths of down to 1000'. The platform is equipped with two cameras, lights, forward-looking and 360-degree sonar, a manipulator/cutter attachment arm. Developing skills in the operation of this device will grant operators value-added capabilities in the search and recovery, critical marine infrastructure inspection, and scientific research fields.

L3 Harris IVER3

After completing this course students should be able to participate in the preparation, launch, operation, and recovery of the L3 Harris IVER 3, which is a fully autonomous underwater vehicle capable of 8-to-14-hour missions to perform wide-area recovery searches, aquatic infrastructure security monitoring, and environmental surveys.

SARCOS Guardian S Training

Training on this device prepares learners to use the Guardian S robot while responding to Urban Search & Rescue incidents involving collapsed structures and other confined spaces. At the courses' completion participants should be able to leverage the Guardian S' multitude of cameras, microphones, and hypermobility features to safely locate and access individuals in unstable or confined environments.

SuperDroid Firebot Training

Taking this course will prepare students to use the Firebot to traverse and assess scenes that may contain hazardous materials or other environmental hazards to responders from a safe distance.

Thermography Awareness Training

This course will give students knowledge on the basic physics concepts and terminology used when operating thermal cameras, as well as some operational considerations that can affect the accuracy of temperature readings while using handheld and unmanned vehicle mounted devices. The course will conclude with some hands-on exercises using thermal cameras.

GIS Collection Team

One of the biggest challenges after a disaster is establishing a ground truth for emergency management personnel to operate from. This course aims to address this challenge by teaching CERT Team Members, Public Works Employees, First Responders, and other personnel how to use a ESRI field collection application, from which data can be shared with the agency having jurisdiction. During the course students will learn field safety, how to properly capture critical information (damage, high water marks, flood boundaries, etc.), and how input the information into the ESRI field collector app.

GIS Basic Map Functions

During this course students will learn basic GIS skills required to get started with ESRI GIS products as a person without previous training and experience in the field. Using a combination of instructor-led and web-based modules students will learn what GIS systems are; how locate, assess, and import existing GIS data; format maps using imported layers, metadata and attribute table editing, and some basic spatial queries. QGIS software can also be used during training upon request.

GIS/Remote Sensing Familiarization

During this course students will receive training on collection, processing, and exploitation of orthophotography, LiDAR, and Sonar imagery using a combination of equipment-specific and ESRI products.

FLIR Ranger Radar / Spectral Analyzer Training

This course will train students on basic radar and direction-finding theory required to establish tactical counter sUAS surveillance, in addition to general airspace and coastal domain awareness. Students will also get hands-on training in the safe operation of the FLIR Ranger tactical radar and Tectronix Spectral Analyzer, which will enable them to locate and track sUAS, other aircraft, marine craft, and remote operators.

sUAS Regulations, Safety, and Airworthiness

Performing small unmanned aircraft operations in a legal, safe, and efficient manner is not always easy. This course is designed for sUAS program managers and chief pilots to gain a better grasp of regulatory and supplemental materials produced by the Federal Aviation Administration (FAA), Part 107 waiver request processes, basic human factors and safety management system concepts, and airworthiness assurance processes that can be applied to your sUAS operation.

sUAS Mission Planning

Preparing to get approval for beyond line-of-sight operations? Complicated airspace? Special operations and hazards? This class will provide in-depth considerations for planning advanced sUAS operations from start to finish, including pre-flight weather, route planning, communications, contingencies and emergency procedures, risk management, and mission documentation.