HIGHER LEARNING

UAV education programs reach new heights

BY **MATT BOYD**

We devote pages and pages in every issue of *RotorDrone* to the ever-expanding role that unmanned aircraft systems (UAS) of all types play in our world. Much of our focus is recreational, but increasingly you see us documenting (and celebrating!) the commercial, environmental, and public-safety advancements that drones are ushering in. UAS is far and away the fastest-growing segment of the aviation industry. It's been estimated that its economic impact could climb past $100 *billion* by the year 2020!

Think about that for a second. With that much money almost literally just floating out there, there's an entire generation of technically adept kids coming up through the schools that are looking at drones as a viable career path. And there are plenty of the rest of us with an entrepreneurial streak just dying to take our recreational fascination with all things drone-related into the professional sphere.

What will take all of that ambition and transform it into a reality is education and training, and there are hundreds of institutions out there looking to provide it. I went looking to see what programs are already in place to help students get their drone careers off the ground. What follows here is by no means comprehensive—there are already far too many institutions offering some form of drone education or technical-training classes to have a hope of listing every one. Rather, we sought to give you a good cross-section of the programs that are out there, with examples of some we felt stood out in some way or another. We've got everything from beginner courses lasting a couple of hours to doctorate-level graduate programs. Some are conducted in person, while other classes are delivered online. Some prepare you for the FAA's Part 107 Unmanned Aircraft General Exam, necessary for anyone looking to use a drone for commercial purposes. Other courses focus on piloting, design, or maintenance. Still others focus on specific skill sets relating to a particular use. In total, I found more than 50 programs from nearly 20 schools. Because I had to organize them somehow, I chose to group them into categories based roughly on the time required to complete the course of study and/or the type of certification or degree awarded. I have highlighted a few notable institutions and created a reference chart for the different programs. I hope you find it useful, and maybe the glimpse of the educational opportunities that are already available to drone enthusiasts of all experience levels will inspire you to take your love of drones to the next level by pursuing one of them.

Embry–Riddle Aeronautical University's UAS club operates their quadcopter on campus in Daytona Beach, Florida, December 1, 2014. (Photo courtesy of Embry–Riddle/David Massey)

FAA PART 107 TEST-PREP CLASSES

The most basic level of organized UAS training courses consist of various test-preparation programs for the FAA's Airman Knowledge Test as part of Title 14, Part 107 ("Part 107" for short)—the certificate required for commercial operation of a drone weighing less than 55 pounds. These classes can range from prerecorded online audio/video tutorial programs, done at the student's own pace, to live-webcast video classes to in-person classes and seminars, ranging from a few hours to several days. Often these types of training are administered by companies, but many are also conducted by continuing-education and/or professional-development departments of academic institutions. Typically these classes have no special requirements or prerequisites, and are geared toward general enthusiasts rather than full-time students. Some in-person programs roll the cost of the test itself into the tuition and are licensed by the FAA to administer it, while others simply prepare you for the exam and leave it to the student to schedule their own. When comparing class format, prices, and times, make sure that you consider what will work best for your schedule and budget.

Relevant schools: Academy of Model Aeronautics; Eye In The Sky UAS Training Academy; Kansas State University; Monroe Community College; Northwest Michigan College

SEMINARS AND SHORT-TERM TRAINING

This is the next step up from the FAA Part 107 test prep and sometimes works in concert with those classes. Most of these seminars are geared toward practical flight-training skills, be they general stick time or task-specific knowledge and techniques like agriculture, cinematography, or emergency response. I have defined these as classes ranging from a several hours to a few weeks, but the common element is that they focus on specific skill sets rather than FAA testing. Again, we have a mix of options delivered in person and online, and prices vary according to class length, intensity, and specialty. Commercial companies, private universities, and public colleges all offer options in this category. Some of these programs offer completion certificates, but these are less important than the practical skills themselves. Pilots will likely not need to take more than one general flight-training class, but some might wish to take multiple courses in specialized skills.

Relevant schools: Academy of Model Aeronautics; Drone University USA; Eye In The Sky UAS Training Academy; Indiana State University; Kansas State University; Monroe Community College; National Drone School; University of Nevada, Reno; Unmanned Vehicle University
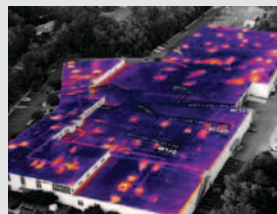
Monroe Community College
Rochester, NY
monroecc.edu

Monroe Community College is an excellent example of a regional school that recognizes the commercial potential of UAVs and has taken a proactive approach to drone education. As part of its Corporate College Economic Development and Innovation Workforce Services Division (which is the fancy way of saying "professional adult education" geared toward us folks with full-time jobs), Monroe offers night classes starting with FAA Part 107 Test Prep as well as an introductory "Learn to Fly" course, which even includes a Syma X5C and a copy of the AeroSIM RC flight simulator. Monroe also sees an important role for drones in the public-service sector, and offers a course for public-safety personnel that introduces them to the various benefits of drone technology in emergency situations as well as their value in training personnel during both drills and post-emergency evaluation.

Corporate College
MONROE COMMUNITY COLLEGE

Drone University USA
Sacramento, CA
droneuniversityusa.com

Drone University USA is a commercial UAV education organization that offers an impressive program of specific flight-training and technical skills, including classes on aerial agriculture management, first responder search and rescue, commercial disaster response, and aerial cinematography. Drone University USA contracts with industry professionals to conduct its training seminars and classes. (The cinematography course, for example, is headed by Nick Swartzendruber, whom we featured in the "Drone Cowboys" feature in the Nov/Dec 2016 issue.) Most of these topic-specific courses comprise one to two days at the company's Sacramento facility, but if a client books a full class of 12 students, Drone University USA will take its show on the road and run its training seminars at any appropriate facility that a client specifies. It has also partnered with the Tesla Foundation (teslafoundationgroup.org) to offer, starting in 2017, its base flight-training course at more than 20 colleges and universities across the country.

COURTESY OF DRONE UNIVERSITY USA

Academy of Model Aeronautics (AMA)
amaflightschool.org / **fly-robotics.com**

The AMA has decades of experience in training and support of all kinds of model aircraft, so of course it offers a variety of programs relevant to UAS. In conjunction with Fly Robotics, the AMA offers Part 107 prep and UAS Public Safety courses, but most interesting is its STEM (Science, Technology, Engineering, and Math) Education program for young students. It's a team-based program run through local schools and supported with online curriculum. The ground-school component of the STEM UAS program will prepare students to take the FAA Part 107 test upon completion.

AMA®
ACADEMY OF MODEL AERONAUTICS

TECHNICAL CERTIFICATIONS

I define this category as longer-term programs that comprise multiple classes or topics but tend to remain more skill-oriented rather than academic in nature. Duration can range from a few weeks up to a full year, and students typically receive a technical certificate upon successful completion. Many of these offerings are comparable to vocational-school programs and commonly share their focus on practical knowledge that has a specific and immediate application in a job environment. There are some technical-certification programs offered entirely online, but the benefits of hands-on training make an in-person class environment start to be more common at this level. Pilots and crew seeking employment with a UAV-oriented business or to establish their own would be candidates for this type of program; the technical certifications would likely be useful in obtaining liability insurance, which a serious commercial drone enterprise would need. Some institutions offer job-placement assistance starting at this level, and if a prospective student has a specific target job in mind, it definitely makes sense to check out what requirements an employer looks for in terms of certification and accreditation.

Relevant schools: Oklahoma State University; Sinclair Community College; Unmanned Vehicle University

PHOTOS COURTESY OF SINCLAIR COMMUNITY COLLEGE

Sinclair Community College
Dayton, OH **sinclair.edu**

Located barely 10 miles from Wright-Patterson Air Force Base in the aviation hub that is Dayton, Ohio, it makes sense that Sinclair would be one of the foremost community institutions specializing in technical certifications and associate degree programs relating to the UAS field. How that came to be illustrates an innovative approach to problem-solving that will serve as an excellent example to students enrolled in the program. Back in 2008, the Dayton area—like many such communities—was in the midst of a significant economic downturn, thanks to the contraction of manufacturing and traditional tech industries. Dr. Andrew Shepherd, director of Sinclair's UAS program, told me how Deb Norris, Sinclair's Senior Vice President for Workforce Development, had come back from a trade conference in Israel impressed by that country's leadership role in UAS development; she recognized that Dayton was well positioned, with its rich aviation tradition, technical infrastructure, and human resources, to excel in the UAS field. Sinclair then made the decision to specialize in UAS and has invested heavily in its UAS program. It went so far as to develop the one-of-a-kind, 40-foot-high, 3200-square-foot Indoor Flying Pavilion specifically for UAV flight training and research. The school also worked with Unmanned Solutions Technology, a local business, to develop a custom mobile ground-control station—essentially, a laboratory and control center on wheels—to support UAS training and research in the field. All of that serves students in any of its several one-year technical-certification programs or its two-year associate degree program.

National UAS
Training and Certification Center

ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAMS

Think of the programs that confer associate of applied science degrees as those that bridge the gap between technical-certification programs and traditional four-year academic degrees. Community colleges are the most common hosts for associate degree programs, although larger institutions sometimes offer them as well. They can serve as a stand-alone degree, but sometimes the credits can also be applied to a bachelor's program or even transferred to another institution offering a bachelor's program. These programs comprise multiple classes covering a broad range of UAV-related content, from engineering and technical skills to flight training to project management. We've found examples offered in person and online, and an associate degree program typically takes approximately two years to complete.

Relevant schools: Central Oregon Community College; Community College of Beaver County; Sinclair Community College; Troy University

BACHELOR OF SCIENCE DEGREE PROGRAMS

The proliferation of new bachelor's degree programs is the surest sign of the anticipated growth of the UAV field and the professional opportunities it offers. Dozens of universities offer UAS courses as part of their four-year bachelor's programs, and many have expanded their UAS class catalog sufficiently to offer the subject as a concentration or minor. But the most important growth area we've seen is the impressive number of fully accredited institutions—both private colleges and state-level public universities—that now offer degrees specifically in the UAS field. With drones being, by far, the fastest-growing category in the aviation industry, schools are scrambling to develop programs to serve this important technical sector, and the forward-thinking ones are investing to establish themselves as leaders in preparing students for this ever-more-in-demand field. A number of universities have opened multiple tracks within their UAS programs, offering individual focuses on engineering, design, operations, and management. Schools are realizing that most of the specializations available in the full-size aviation industry are applicable to UAVs as well, so look for this trend to only accelerate in the coming years.

Relevant schools: Embry-Riddle Aeronautical University; Indiana State University; Kansas State University Polytechnic Campus; Kent State University; LeTourneau University; Northwest Michigan College; Oklahoma State University; University of Nevada, Reno

Kansas State University Polytechnic Campus

Salina, KS **polytechnic.k-state.edu**

> Kansas State University is one of a growing category of state schools that have introduced full bachelor's degree programs specializing in UAS as part of its Polytechnic Campus (aka K-State Salina). Dr. Michael Most told me that the origin of his school's UAS program can be traced back to a need to improve emergency response after the extraordinarily destructive tornado outbreak in May 2007. More than 100 storms ripped across the Midwest, including a giant EF5 tornado that destroyed 95 percent of the town of Greensburg, Kansas, and killed 11 residents. In response, Kansas's legislature approved state funds to help develop technology to better deal with such disasters in the future, and K-State Salina's UAS program was founded with a portion of those funds. Of course, the program has grown far beyond that scope in the decade since, and now encompasses full four-year programs, with majors in UAS Flight and Operations and another in UAS Design and Integration. The flight program includes five separate flight-training courses, and graduates receive an FAA Private Pilot license and their Instrument Rating. In addition to the two bachelor's programs, the Polytechnic Campus also conducts several short-term courses, ranging from a single four-hour class on hobbyist-level multirotor safety and flight-techniques course to a comprehensive FAA Part 107 Test Prep as well as one- and two-week flight-training courses.

KANSAS STATE POLYTECHNIC

K-State's program includes training on up to 16 different types of UAV, and the Applied Aviation Research Center flies more than 100 missions a year in conjunction with federal agencies, private-sector companies, and other universities, giving lots of hands-on experience in the field.

COURTESY OF KANSAS STATE UNIVERSITY

GRADUATE-LEVEL PROGRAMS: MASTER'S AND DOCTORAL DEGREES

With the expansion of bachelor's programs across the country, growth within the graduate program segment was an inevitable—and welcome!—next step, which we see already picking up momentum. Look for the number and diversity of master's and doctoral programs to grow even faster in the coming years. Graduates of a bachelor's program can typically complete master's work within two years and doctoral work in perhaps a year more, positioning themselves as prime candidates for top-level job opportunities across the UAS field. Interestingly, when it comes to graduate-level programs, online seems to be as much the norm as in-person classes, so it should be possible for graduates with bachelor's degrees to continue their education with greater flexibility.

Relevant schools: Embry-Riddle Aeronautical University; Oklahoma State University; Unmanned Vehicle University

COURTESY OF EMBRY-RIDDLE AERONAUTICAL UNIVERSITY

Embry-Riddle Aeronautical University
Daytona Beach, FL; Prescott, AZ
erau.edu

No private university embodies more aviation tradition and prestige than Embry-Riddle, and it was one of the first universities to translate its full-size aviation bachelor of science and master of science degree programs into UAS equivalents. Currently, Embry-Riddle offers four such program categories: two each at the bachelor's and master's level. What is interesting is that the school offers both either in person or online and at Embry-Riddle's worldwide campus network. A bachelor's in UAS Science is available at either the Daytona Beach or Prescott campus; the master's in Unmanned & Autonomous Systems Engineering is available at the Daytona Beach campus only. A bachelor's in UAS Applications and a master's in Unmanned Systems are available worldwide. The latter two obviously make the programs especially appealing to prospective students who might not have an accredited degree program near where they live. Both sets of programs emphasize not only flight and technical proficiency but also development, application, and management of UAS programs, plus the policies and regulations necessary to stay relevant in the expanding field.

Unmanned Vehicle University
Phoenix, AZ
uxvuniversity.com

Unmanned Vehicle University proudly touts itself as the first university to be licensed to grant master's and doctoral degrees in Unmanned Systems Engineering using curriculum delivered totally online, and remains one of very few doctorate-level degrees available in UAS in any form. UVU emphasizes the industry experience of its instructor staff—ranging from military to commercial, adding up to a combined 500 years of UAV operations' experience to draw from—offering students more real-world knowledge than most other institutions of any size. Graduates from these programs will be well positioned to apply for positions as chief engineers, researchers, systems engineers, and engineering managers in the UAV field. In addition to its graduate-level programs,

UVU also offers more traditional short-term training courses focusing on flight training and FAA Part 107 test prep as well as technical-certification programs for UAS Project Management.

Students in UVU's postgraduate programs will be well positioned to work on projects like professional aerial cinematography, now being utilized in everything up to and including Hollywood feature films.

COURTESY OF UNMANNED VEHICLE UNIVERSITY
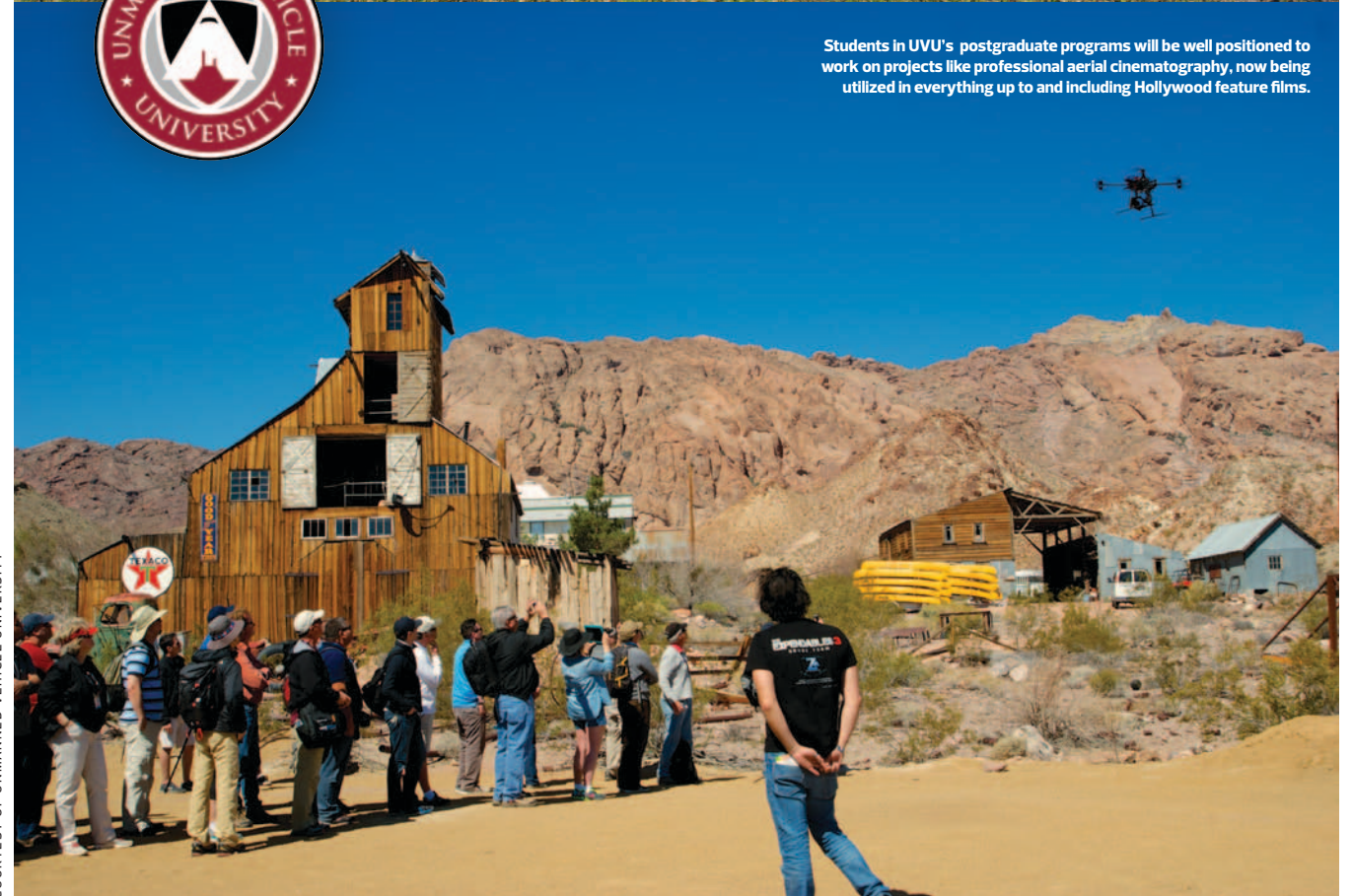
Drone Education Programs by Category

INSTITUTION	CATEGORY	PROGRAM NAME	LOCATION	TYPE OF ATTENDANCE	LENGTH	ESTIMATED COST	PREREQUISITES	TYPE OF CERTIFICATION UPON COMPLETION	SHORT URL
Academy of Model Aeronautics	Test prep	FAA Part 107 Preparatory Course	Various	Online	4–6 hours	$249 ($174 for AMA members)	None	FAA Part 107 Certificate	fly-robotics.com/ground-school
Eye In The Sky UAS Training Academy	Test prep	FAA Part 107 Test Prep	Nevada Institute of Autonomous Systems (NIAS), ND, NY, and TX Test Sites	In person	3 days	NA	None	Certificate of Completion	eyeintheskyuas.com
Kansas State University	Test prep	sUAS Commercial Pilot Training (Part 107)	K-State Polytechnic Campus, Salina, KS	In person	5 days (40-hour course)	$1,400	None	FAA Part 107 Certification	polytechnic.k-state.edu
Monroe Community College	Test prep	Remote Pilot Knowledge (FAA Part 107) Test Preparation Class	Rochester, NY, campus	In person	6 hours (2x 3-hour evening classes)	$495, plus test fee	None	FAA Part 107 Certification	monroecc.edu
Northwest Michigan College	Test prep	Remote Pilot Ground School and FAA Test Prep	Traverse City, MI, campus	Online	Self-paced	$299	None	UAS Operator Certification	nmc.edu/drone
Northwest Michigan College	Test prep	Remote Pilot Ground School and FAA Test Prep with Individual Instruction	Traverse City, MI, campus	Online	10 hours, plus self-paced	$599	None	UAS Operator Certification	nmc.edu/drone
Academy of Model Aeronautics	Seminar/Short-term training	UAS 4 Public Safety Course	Various	In person or online	3 days	$1,295	Public Safety Officers	FAA Part 107 Certificate	fly-robotics.com/public-safety-2
Academy of Model Aeronautics	Seminar/Short-term training	UAS4STEM Search & Rescue Challenge	Various	In person or online	Self-paced	$2,495	Middle/High school + adult sponsor	FAA Part 107 Certificate	uas4stem.org
Aviation Seminars	Seminar/Short-term training	UAS/UAV/Drone Ground School	55 cities across the U.S.	In person	2 days	$429	None	Certificate of Completion	avsem.com
Drone University USA	Seminar/Short-term training	Specialized Training Courses in Agriculture Aerial Vegetation Management, First Responder/Search and Rescue, and Commercial Disaster Preparedness/Response	Sacramento, CA	In person	1 day (8 hours) each	$1,299 each	None	Technical Certificate	droneuniversityusa.com
Drone University USA	Seminar/Short-term training	Small UAV/Drone Advanced Aerial Cinematography Training Course	Sacramento, CA	In person	2 days (16 hours)	$1,599	Requires that students own equipment and have basic flying skills	Technical Certificate	droneuniversityusa.com
Drone University USA	Seminar/Short-term training	Small UAV/Drone Commercial, Remote Pilot Training & Certification Course	20 affiliate campuses through Tesla Foundation	In person	2 days (16 hours)	$2,199		Technical Certificate	droneuniversityusa.com
Eye In The Sky UAS Training Academy	Seminar/Short-term training	Training Courses in Fixed-Wing UAS, Rotary UAS, and Hybrid UAS	Reno, NV (Silver Springs Airport); Alamosa, CO (Leech Airport); Carrabelle, FL; PA; and MI	In person	5 days	NA	None	Certificate of Completion	eyeintheskyuas.com
Indiana State University	Seminar/Short-term training	FAA Part 107 Course	Terra-Haute, IN	In person	2-day seminar	$120	None	FAA Part 107 Certificate	indstate.edu/technology/ums
Indiana State University	Seminar/Short-term training	First-Responder Training	Terra-Haute, IN	In person	2-week training class	NA	None	NA	indstate.edu/technology/ums
Kansas State University	Seminar/Short-term training	sUAS Fixed-Wing or Multirotor Course	K-State Polytechnic Campus, Salina, KS	In person	5 to 9 days (40-72 hours)	$3,100 to $4,500	FAA Part 107 certificate	Kansas State University Fixed-Wing Course Achievement Certification	polytechnic.k-state.edu
Kansas State University	Seminar/Short-term training	sUAS Multirotor Hobbyist Course	K-State Polytechnic Campus, Salina, KS	In person	1/2 day (4-hour course)	$200	Under age of 14 must have permission of parent or guardian	NA	polytechnic.k-state.edu
Monroe Community College	Seminar/Short-term training	Introduction to Small Unmanned Aerial Systems/Learn to Fly (sUAS)	Rochester, NY, campus	In person	12 hours (4x 3-hour evening classes)	$995	None	Training Certificate of Completion	monroecc.edu
Monroe Community College	Seminar/Short-term training	Introduction to Small Unmanned Aerial Systems—Public Safety (sUAS)	Rochester, NY, campus	In person	16 hours (2x 8-hour day sessions)	$1,350	Open to public-safety personnel	Training Certificate of Completion	monroecc.edu
National Drone School	Seminar/Short-term training	Online UAV Flight Training Course	Online	Online	Own pace	$199	None	Certificate	nationaldronetraining.com
University of Nevada, Reno	Single course	UAS Flight Coordinator Course	Reno, NV, campus	In person	3 credits/1 semester	Varies	Undergraduate junior or senior	NA	unr.edu
Unmanned Vehicle University	Seminar/Short-term training	UAV Pilot Training Program	Phoenix, AZ	Online	52 hours	$3,500	16 years of age	Certificate of Completion	uxvuniversity.com
Oklahoma State University	Technical certification	Unmanned Pilot	Stillwater, OK, campus	In person or online	NA	Varies	Varies	Technical Certificate—Unmanned Pilot	unmanned.okstate.edu
Sinclair Community College	Technical certification	UAS First Responder, Geographic Information Systems, and Precision Agriculture Certification	Dayton, OH, campus	In person	32 weeks (16 credit hours)	$1,684 + $720 books/supplies	None	Technical Certificate	sinclair.edu
Sinclair Community College	Technical certification	Unmanned Aerial Systems	Dayton, OH, campus	In person	1 year (33 credit hours)	$3,417 + $1,485 books/supplies	None	Technical Certificate	sinclair.edu
Unmanned Vehicle University	Technical certification	UAS Project Management	Phoenix, AZ	In person	16 credit hours (4x 4-credit courses)	$400/credit ($6,400 total)	High-school degree or equivelent	Certificate of Completion	uxvuniversity.com
Central Oregon Community College	Associate degree	Unmanned Aerial Systems	Bend, OR, campus	In person	Multiclass degree; 95 credits	$93 to $256/credit	None	Associate of Applied Science	cocc.edu
Community College of Beaver County	Associate degree	Unmanned Aerial Vehicle	Monaca, PA, campus	In person	2 years (65 credit hours)	Varies	NA	Associate of Applied Science	ccbc.edu/UAV
Sinclair Community College	Associate degree	Unmanned Aerial Systems	Dayton, OH, campus	In person	2 years (62 credit hours)	Varies	NA	Associate of Applied Science	sinclair.edu
Troy University	Associate degree	Unmanned Aerial Systems	Troy, AL	Online	6 classes (2 per semester)	$338/credit	NA	Associate of Applied Science (also a bachelor's degree minor)	spectrum.troy.edu/uas
Embry-Riddle Aeronautical University	Bachelor's degree	Unmanned Aircraft Systems Science	Daytona Beach, FL, and Prescott, AZ, campuses	In person	122 credits (4 years)	Varies	Embry-Riddle admission standards	Bachelor of Science	erau.edu
Embry-Riddle Aeronautical University	Bachelor's degree	Unmanned Aircraft Systems Applications	Worldwide campuses and online	Regional and online	120 credits (4 years)	Varies	Embry-Riddle admission standards	Bachelor of Science	erau.edu
Indiana State University	Bachelor's degree	Unmanned Systems Technology	Terra-Haute, IN	In person	4 years	Varies	Indiana State admission standards	Bachelor of Science	indstate.edu/technology/ums
Kansas State University	Bachelor's degree	UAS Design and Integration or Flight and Operations specializations	K-State Polytechnic Campus, Salina, KS	In person	4 years	$357.50/credit (KS resident); $828/credit (nonresident)	K-State admission standards	Bachelor of Science (Flight Ops specialization also receives FAA Private Pilot License with Instrument Rating)	polytechnic.k-state.edu
Kent State University	Bachelor's degree (minor)	Unmanned Aircraft Systems	Kent, OH, campus	In person	16 credits minimum, 11 classes offered	Varies	NA	Bachelor of Science (Minor)	kent.edu/caest
LeTourneau University	Bachelor's degree	Remotely Piloted Aircraft Systems: Electronics (ARVE), Pilot (ARVP), or Technician (ARVT) Concentrations	Longview, TX, campus	In person	4 years (126 to 132 credit hours)	$27,930/year	Varies	Bachelor of Science	letu.edu
Northwest Michigan College	Bachelor's degree (minor)	Unmanned Aerial Systems (UAS, UAS 1, UAS 2)	Traverse City, MI, campus	In person	4 years	Varies	NA	Bachelor of Science (minor)	nmc.edu
Oklahoma State University	Bachelor's degree	Unmanned Pilot	Stillwater, OK, campus	In person or online	4 years	Varies	Varies	Bachelor's degree—Unmanned Pilot	unmanned.okstate.edu
University of Nevada, Reno	Bachelor's degree (minor)	Unmanned Autonomous Systems	Reno, NV, campus	In person	18 credits (six 3-credit courses)	Varies	NA	Bachelor of Science (minor)	unr.edu
Embry-Riddle Aeronautical University	Master's degree	Unmanned & Autonomous Systems Engineering	Daytona Beach, FL, campus	In person	1.5 to 2 years (30 credit hours)	Varies	Bachelor's degree	Master of Science	erau.edu
Embry-Riddle Aeronautical University	Master's degree	Unmanned Systems	Worldwide campuses and online	Regional and online	1.5 to 2 years (36 credit hours)	Varies	Bachelor's degree	Master of Science	erau.edu
Oklahoma State University	Master's degree	Unmanned Systems Engineering	Stillwater, OK, campus	In person	1.5 to 2 years	Varies	Bachelor's degree	Master's degree in Unmanned Aircraft Systems Engineering	unmanned.okstate.edu
Unmanned Vehicle University	Master's degree	Unmanned Systems Engineering	Phoenix, AZ	Online	1.5 to 2 years (36 credit hours)	$400/credit ($14,400 total)	Bachelor's degree in any field from an accredited college/university	Master's degree in Unmanned Systems Engineering	uxvuniversity.com
Oklahoma State University	Doctoral degree	Unmanned Systems Engineering	Stillwater, OK, campus	In person	3 years	Varies	Bachelor's degree	Doctoral degree in Unmanned Aircraft Systems Engineering	unmanned.okstate.edu
Unmanned Vehicle University	Doctoral degree	Unmanned Systems Engineering	Phoenix, AZ	Online	3 years (60 credit hours)	$400/credit ($24,000 total)	Bachelor's degree in any field from an accredited college/university	Doctoral degree in Unmanned Systems	uxvuniversity.com

Please note that while the information on this chart was accurate to the best of our knowledge at time of publication, schools change program details frequently. Check with a specific institution for its most up-to-date program info.