

News / USA

US Universities Add Degrees in Unmanned Aerial Systems

Print Comment Share:



Autonomous Flight Systems Laboratory at the University of Washington.

Tom Banse

Last updated on: December 04, 2015 12:01 PM

SEATTLE—Drones could be a key technology of the future, and job prospects for those who know how to design, build and control them look good. That's why colleges and universities around the USA are starting to offer degrees in unmanned aerial systems.

One of them is the [University of Washington](#) in Seattle. Aeronautics research scientist Christopher Lum works with students in the Autonomous Flight Systems Laboratory to explore how civilian drones can safely share the skies with manned aircraft.

Senior Ryan Valach savors his three years in the autonomous flight lab. "One of the coolest parts is the collaboration we get to do with industries and all the cool technology we work with. It is definitely an

opportunity that a lot of students don't usually get."

Transformation

Aeronautics and Astronautics master's student Ward Handley wasn't as sold at first. "I specifically decided, no I do not want to work on drones because of the privacy issues," he recalled. But then came an offer for a paid position in a drone lab... and Handley had a transformation.

"I'd like to see them used for good rather than ill," he said. "I think there are enough good applications for them that are really useful to society so that it is worthwhile to pursue these things."

WATCH: Related video

FEATURED VIDEOS



Lviv Welcomes New US Training of Ukrainian Soldiers

Comment (0)

VOA BLOGS



'Medieval Warm Period' May Not Have Been Global Climate Event

by Rick Pantaleo



Why Virtual Whyville Still Inspires

by Aida Akl



All About America 5 Things Stressing Americans Out Most Right Now

by Dora Mekouar

DAY IN PHOTOS



MORE USA NEWS



Next Syria Talks Set This Month in New York, Kerry Says



Students work on building and flying drones at the University of North Dakota, the first university to offer an unmanned aerial systems degree, and one of the schools selected by the FAA for the national academic research consortium, the "Center of Excellence for Unmanned Aircraft Systems." (Video courtesy University of North Dakota Aerospace Network)

But new recommended [FAA rules](#) will likely require all drones be registered in a giant database, and evolving regulations for drone flying present lots of hurdles for students looking for hands-on piloting experience. A challenge for many academic unmanned aerial systems programs is finding a place to fly legally.

At Blue Mountain Community College in Pendleton, Oregon, students fly inside the college gym.

In Seattle, UW student Alec Bueing shows off his department's flight test range for small copters, explaining "[It's] just a conference room that we move the tables and chairs out of the way for, make sure to bring the blinds down so if it happens to get out of control toward the windows we minimize any damage."

Federal regulations

Why indoors? Lum explains it takes a very long time for everyone besides hobbyists to get official permission to fly a drone outside.

"The federal regulations are a little bit stifling on that front," he said. "We need to file for paperwork. We need to register our aircraft. We need to obtain what is called a Certificate of Authorization - or waiver."

That can take months.

The Federal Aviation Administration aims to replace its current case-by-case examination of drone authorization requests with a national rule for civil and commercial UAS operations later in 2016.

"At this time, Kansas State University is the only school with a... regulatory exemption to offer unmanned aircraft flight instruction to students [outdoors]," an FAA spokesperson wrote in an email. "We are currently evaluating similar petitions from a number of other universities and colleges."

[Kansas State](#) is one of 15 universities selected by the FAA to be part of a national academic research consortium called the "[Center of Excellence for Unmanned Aircraft Systems](#)." This comes with federal grant funding to expand research and training. Also in the consortium is UND, the first university to offer a UAS degree, one of six test sites.

For their part, UW's Lum and some of his students have relocated to more accommodating Australia for the past two summers to log outdoor flying time. A Western Washington University professor took his department's two drones across the border to Canada for the same reason.



US Regrets Latest Russian Ban on Western

NGO



Role of Terrorism in Shooting Causes Multiple Concerns, Fears



Robert Loggia, Tough Guy Actor, Dies at 85 of Alzheimer's



UN Conference Delivers Climate Draft Text



NASA Releases New Images of Pluto



As Voting Nears, Jeb Bush Continues to Struggle



US VP Biden Heads to Ukraine to Stress Continued Support



Chicago Police Reports Do Not Match Video Footage



Rare NYT Front-page Editorial Urges Stricter Gun Control Laws

Most Viewed

1. Chicago Police Reports Do Not Match Video Footage
2. Obama: US 'Will Not Be Terrorized' After California Shootings
3. Taliban Chief Refutes Own Death in Voice Message
4. Rare NYT Front-page Editorial Urges Stricter Gun Control Laws
5. Pentagon Defends Quality of Equipment Sent to Ukraine

Most Emailed

Most Discussed

BLOGS

The Student Union

Three Steps to Finding an Internship in the U.S.

EducationUSA Webinar: International Students Share Their Stories

Why Do International Students Come to the U.S. to Study?

[Print](#)[Comment](#)[Share:](#)[Tweet](#)[Recommend](#)[Share](#)

8

[G+](#)

0

[Pin it](#)

YOU MAY LIKE



Experts: Bullets, Bombs, Optimism Not Enough to Destroy Islamic State

Some analysts say anti-Islamic State fight is still too incremental - they assert that US must unite world to lead focused, intense initiative



Rumor Mill Undermines Peacekeepers in CAR

MINUSCA mission has been dogged by allegations of sexual abuse, as well as deaths of at least 17 of its troops in fighting



Immigrant Communities Finding Their Voice in US Election

Grassroots organizations are turning energy from anti-immigration rhetoric into electoral participation

[Comment on this forum](#)

Comments

There are no comments in this forum. Be first and add one

SERVICES:

[Podcast](#)[RSS](#)[Mail Subscription](#)[Mobile](#)

VOANews.com

[USA](#)[Africa](#)[Asia](#)[Mideast](#)[Europe](#)[Americas](#)[Science & Technology](#)[Health](#)[Arts & Entertainment](#)[Business & Economy](#)[Blogs](#)[Video](#)[Editorials](#)

About VOA

[Media Relations](#)[Contact Us](#)[Job Opportunities](#)[Terms of Use/Privacy Policy](#)[Our Languages](#)[Usage Requests](#)

Our Partners

[RFE/RL](#)[Radio Free Asia](#)[MBN](#)[Radio Marti](#)

Our Broadcasts

[Frequencies and Schedules](#)[Pronunciation Guide](#)[Broadcast Programs](#)