

GeoTEd-UAS Institute 2017 Agenda

May 21-26, 2017 | Blacksburg, VA



Pre-workshop Assignment	---	Preflight	Review the FAA's Remote Pilot sUAS Study Guide	https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/media/remote_pilot_study_guide.pdf	---
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#	Time	Location	Category	Topic	Description / technical requirements / etc.	Lead Instructor
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Day 1: Sunday, May 21

1	11:00 - 12:00	315 Cheatham Hall	---	Workshop Registration	---	---
2	12:10 - 12:30	315 Cheatham Hall	---	Workshop Overview	Workshop goals, objectives, and logistics	John McGee et al
3	12:30 - 12:45 Working Lunch	315 Cheatham Hall	---	Overview of Workshop & Expectations	---	David Webb
4	12:30 - 1:15 Working Lunch Meeting (continued)	315 Cheatham Hall	Preflight	sUAS Overview	GeoTEd Introduction, general overview of sUAS, the UAS-OT DACUM	Chris: GeoTEd-UAS overview: John McGee DACUM session
5	1:15 - 1:45	315 Cheatham Hall	Preflight	Applications of sUAS	Real world sUAS applications: Now and in the future	GeoTEd Project Team, led by Chris Carter

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6	1:45 - 5:00	315 Cheatham Hall	Preflight	FAA Regulations / Preparing for the sUAS Airman's Exam	Airspace classification, controlled airspace, aviation charts, visual flight rules, weather, aviation forecasts, aircraft load factors, emergency procedures, communication protocols, risk management, airport operations, maintenance and flight inspections, sUAS registration, etc.	Daniel Cross
7	5:00 - 5:15	315 Cheatham Hall	---	Daily Wrap-up		Cherie Aukland
8	6:30 - 8:00	Hahn Hort Center	Preflight	Evening Session - Dinner meeting @ Hahn Hort Center	Introduction to Remote Sensing: True color, NIR, Multi- spectral, & Lidar. What does it all mean?	Valerie Thomas, Associate Professor, Virginia Tech

Day 2: Monday May 22

9	9:00 - 9:15	213 A Cheatham Hall (reservation confirmed)	---	Overview of the day	---	David Webb
10	9:00 - 9:30	213 A Cheatham Hall (reservation confirmed)	Preflight	The Physics of Flight	---	Daniel Cross
11	9:30 - noon	213 A Cheatham Hall (reservation confirmed)	Preflight	Basic components of an sUAS	Short overview presentation: "The Essential Componentes of an sUAS". Followed by Instructor-led, hands-on activity... "Building Your Own Drone"	Fred Coeburn

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12	noon - 1:00	D2		Lunch	---	---
13	1:15 - 3:00	213 A Cheatham Hall (reservation confirmed)	Preflight	Basic componenets of a sUAS (continued)	"Building Your own Drone" (continued)	Fred Coeburn
14	3:15 - 4:00	CEARS Computer Lab	Preflight	Preflight considerations and tools	Flight simulator software: Demonstration and discussion on curriculum integration	Fred Coeburn
15	4:15 - 5:00	CEARS Computer Lab	Preflight	Preflight considerations and tools	B4UFLY, SkyVector, ArcGIS Online, 1800WXBrief, and other flight planning tools, Keeping a flight log, etc.	Daniel Cross
16	5:00 - 5:15	CEARS Computer Lab	---	Daily Wrap-up	---	Cherie Aukland
17	5:30 - 7:00	Dinner on your own	---	---	---	---
18	7:00 - 9:00	Rising Silos Brewery, 2351 Glade Rd., Blacksburg, VA 24060; (410) 596-1200	---	Information session and networking social	Where the jobs are: Applications of sUAS in the real world	Networking social with AUVSI amd MAAP

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Day 3: Tuesday, May 23

19	9:00 - 9:15	CEARS Computer Lab	---	Overview of the day	---	David Webb
20	9:15 - 9:30	CEARS Computer Lab	---	Limiting Liability - Issues at the VCCS	Process manuals and knowing what faculty can and can't do	Cherie Aukland, Fred Cross, David Webb
21	9:30 - 10:30	CEARS Computer Lab	Preflight	Preparing your flight	Weather Check Software (UAV Forecast) https://www.uavforecast.com/#/ , etc.	Daniel Cross
22	11:15- 12:45	CEARS Computer Lab	Preflight	Preparing your flight	Moving from GoogleEarth (reconnaissance level planning) to specific sUAS flight planning software using Dronedeploy, DJIGO, Emotion 2, etc. It'd be great if everybody could demo one preflight planning software pkg. We will conduct flights using both manual and automated flights. Imagery will be processed (using automated flights) later.	Daniel Cross
23	1:00 - 2:00	D2	---	Lunch	---	---

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24	2:00 - 6:00	Kentland Farm	Flight Operation	Practice operating sUAS. Preflight safety in the field, demonstration of sUAS's, participants actually operate sUAS's.	---	Organized by Daniel. Led by Daniel and Fred.
25	6:00 - 6:15	Kentland Farm	---	Daily wrap-up	---	Cherie Aukland
26	6:30	Return to Blacksburg Campus	---	---	---	---
27	6:45	Dinner	On your own	---	---	---

Day 4: Wednesday, May 24

28	9:00 - 9:15	Kentland Farm	---	Overview of the day	---	David Webb
29	9:15 - 11:30	Kentland Farm	Flight Operation (continued)	Advanced sUAS operations	More advanced operations of sUAS: obstacle course. Drone Flying Competition with prizes.	Organized by Daniel. Led by Fred Coeburn, Daniel Cross, David Webb, Cherie Aukland
30	11:30 - 12:00	Kentland Farm	Post flight	---	Post flight check	Fred Coeburn, Daniel Cross, David Webb, Cherie Aukland
31	12:45 - 1:45	D2	Lunch	---	---	---

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32	1:50 - 2:50	Probably 315 Cheatham Hall	Post flight	Applications and the sUAS Industry	Introduction to AUVSI, UAS Applications in Industry Today, and Future Trends and Initiatives	Daniel Morris, , President of AUVSI Hampton Roads Chapter and Director of the Peninsula Technology Incubator at National Institute of Aerospace
33	3:00 - 5:00	CEARS Lab	Post flight	Sensor options	Sensor options: Connecting application needs with sensors. Introduction to True color, NIR, thermal, multi-spectral, and lidar, w/ emphasis on true color, and NIR.	Valerie Thomas, Associate Professor, Virginia Tech
34	5:00 - 5:15	CEARS Lab	---	Daily wrap-up	Expectations for the following year	Cherie Aukland
35	TBD	Dinner on your own	---	---	---	---

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Day 5: Thursday, May 25

36	9:00 - 9:15	CEARS Computer Lab	---	Overview of the day	---	David Webb
37	9:15 - noon	CEARS Computer Lab	Post flight	Image Processing	Processing imagery collected while at Kentland: Working with DroneDeploy, Pix4D, MapsMadeEasy, and introduce Drone2Map. etc.).	David, Cherie, Daniel
38	noon - 1:00	D2	Lunch	---	---	---
39	1:15 - 5:00	Micro Lab, 220 Cheatham	Post flight	Drones and videography: what you need to know, and making a final product	Introduction to videography (presentation) and hands-on lab exercises: Working with videography using MAGIX Mega Video Studio 14	Chris Valluzo, Multimedia Producer/Director, VT
40	5:00 - 5:15	CEARS Computer Lab	---	Daily Wrap-up	Discussion of applications that may require videography (public safety, film, potentially inspections, etc.)	Cherie Aukland
41	6:30	Bull and Bones or Kabuto Steak House	---	Celebration Dinner	---	---

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Day 6: Friday, May 26

42	9:00 - 9:15	315 Cheatham	---	Daily Overview	---	David Webb
43	9:00 - 11:00	315 Cheatham	Post flight	Integrating sUAS into the Classroom	Panel discussion and final review of participant expectations for the coming year	Everybody
44	11:00 - noon	D2	---	Lunch and Workshop Wrapup	---	Cherie Aukland