

SENATE EDUCATION COMMITTEE RESPONSES FROM UNIVERSITY OF ALASKA

Prepared by University of Alaska – Government Relations Office

February 5, 2021

1. ***Does the University of Alaska System offer courses or certifications in unmanned aerial systems and vehicles? (Sen. Hughes)***

Yes, the University of Alaska System does teach undergraduate and graduate courses in unmanned aircraft systems, offers a minor in Aerospace Engineering, and has both graduate and undergraduate certificate programs working their way through the approval system.

UAF offers a minor in Aerospace Engineering that focuses on UAS. Asst. Prof. Hatfield teaches UAS design, operations, and other UAS-related courses at the graduate and undergraduate levels. Many of his courses are synchronously delivered to UAA engineering students and the UAA students actually have built multi-rotor UAS as a part of their coursework. The graduate course he is teaching this semester (EE F658 Unmanned Aircraft Systems (UAS) Operations) includes students located in Valdez, Juneau, Anchorage, and Fairbanks. Additionally, other professors currently are teaching UAS courses such as Prof. Standley's AVTY F193P BD1 (Drone Use Opportunities in Rural AK) that is being taught this spring through the Bristol Bay campus.

The Unmanned Aircraft Systems (UAS) Operator 30-credit certificate and associated classes have been submitted for approval and are working their way through the system. Three of the classes (two in Engineering and one in Atmospheric Sciences) have already been approved. Asst. Prof. Mike Hatfield, Prof. Javier Fochesatto, Res. Assoc. Prof. Peter Webley, and the Alaska Center for UAS Integration pilots, some of whom have Masters Degrees in UAS from other Universities, will be teaching most of these classes.

A graduate certificate in Aerospace Engineering is also working its way through the system. The certificate has a UAS focus and many of the courses required for it are already approved and being taught.

2. ***What percentage does the cumulative reduction of funding of \$120 million UGF since FY14 equate to when looking at total funds? (Sen. Hughes)***

Since FY14, the University of Alaska System has received a budget cut of \$120 million unrestricted general funds (UGF). This constitutes a 31.9% reduction in UGF funds and a 15.2% reduction in all funds.

	FY14	FY22	UGF Change		
UGF	377.6	257.0	(120.6)	-31.9%	% of UGF
Total*	793.5		(120.6)	-15.2%	% of Total
*excludes duplicate funds					

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Between FY14 and FY22, UA earned revenue is expected to decline by \$15.4 million. This brings the total expected revenue loss to \$136 million, which constitutes a 17.1% reduction in all revenue sources.

	FY14	FY22	Change	
UGF	377.6	257.0	(120.6)	-31.9%
Earned	415.9	400.5	(15.4)	-3.7%
Total*	793.5	657.5	(136.0)	-17.1%
*excludes duplicate funds				

3. Does the University of Alaska System offer any of its courses or training on the Khan Academy webservice? (Sen. Hughes)

No, Khan Academy is a non-profit educational organization which develops its own content and, to our knowledge, does not offer programming from institutions of higher education. Their site is also an open source platform and therefore does not have any sort of revenue component for University of Alaska content. However, UA does offer courses through the edX online platform and has had great success. EdX provides educational content through a massive open online course (MOOC) model, and reaches over 37 million online learners. UAF began offering courses on edX in Fall 2020 and enrolled more than 5,600 students in 132 countries.

After an aggressive offering of five courses last fall, UAF is adding an additional six courses this spring as well as multi-course units in the area of geographic information systems and sports management. Future courses in fall 2021 will include offerings in arctic engineering, northern energy grids, climate science and renewable energy. These courses create new revenue streams and showcase the university's unique expertise to the world. They also increase enrollment at the university, as students who take an edX class with UA are more likely to enroll in fulltime undergraduate or graduate study.

4. Is the University of Alaska System open to adding training on literacy education and virtual education to its required curriculum for its education degree programs? (Sen. Hughes)

The University of Alaska includes training for literacy and virtual education as standard parts of its teacher preparation and degree programs. Elementary teachers are taught reading instruction using phonics and the other four pillars of literacy -- phonemic awareness, fluency, vocabulary and comprehension. Education students are also taught the major digital platforms used by schools, as well as best practices by current K-6 teachers. Our education students also develop a familiarity with virtual apps and websites that facilitate online learning. While no curriculum adjustments are necessary in these areas, the leadership of the UA System's schools of education

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continually review their curriculum to help ensure the best teacher preparation for our students and are making adjustments with an eye on improvement.