Unmanned Vehicle University (UVU)

Outcomes Assessment Plan

Overall Institution—Aggregated for all courses (due to small n size)

Results for 2017-2019

Mission

The mission of UVU is to provide quality distance educational offerings to educate the workforce, technology leaders, and entrepreneurs who will develop and use the unmanned systems of the future.

University Goals

- 1. UVU will provide high quality unmanned systems education and training.
- 2. UVU will be recognized as a global leader in influencing major technical, social and policy decisions on unmanned systems.

University Objectives

- 1. UVU graduates will demonstrate critical thinking to enhance the field of unmanned systems
- 2. UVU graduates will demonstrate problem solving to develop solutions in which unmanned systems are used
- 3. UVU graduates will develop ways for unmanned systems to enrich lives

Program Educational Objectives

Graduates with the Professional Certificate in Unmanned Vehicle Systems Project Management will be able to fulfill the following educational objectives:

1. Demonstrate project management skills that allow graduates to lead projects and/or contribute to the development of new unmanned vehicle systems and related sub-systems.

2. Demonstrate knowledge of systems engineering principles that allows graduates to manage and/or contribute to the development of new unmanned vehicle systems and related sub-systems.

4. Reach the highest academic level with the potential to become a leader and an authority in unmanned systems and technologies. (UG 2 and UO 3)

Graduates with the Master of Science Degree in Unmanned Vehicle Systems Engineering will be able to fulfill the following educational objectives:

- 1. Master the principles of systems engineering to prepare students to manage the development of new unmanned systems. (UG 1 and 2, UO 2)
- 2. Demonstrate a strong technical knowledge in their field so that they can lead and direct engineering and scientific industry teams in their chosen field of study. (UO 1-3)
- 3. Foster innovation of new ideas, methods and techniques in unmanned systems engineering. (UO 1-3)

Graduates with the Doctor of Science Degree in Unmanned Vehicle Systems Engineering will be able to fulfill the following educational objectives:

- 1. Demonstrate an ability to conduct original independent research and make significant contributions to the current body of scientific knowledge in unmanned systems technology and development. (UG 1 and 2, UO 1-3)
- 2. Develop and apply advanced experimental and/or computational skills appropriate to a professional researcher in the field of unmanned systems. (UG 2, UO 1-3)
- 3. Lead unmanned systems research programs and communicate the findings in scientific forums. (UG 1 and 2, UO 3)

Program Goals: Professional Certificate in Unmanned Vehicle Systems Project Management Demonstrate projects management skills that allow graduates to lead projects and/or contribute to the development of new unmanned vehicle systems and related sub-	Course Outcomes (aligned to a program goal) UAV 303 (certificate students from UAV 301/601 and UAV 402/702)	Direct Measures (how will this outcome be measured?) Two direct measures used (from classroom work)	Assessment Method: Rubric 1=unsat 2=sat 3=competent 4-=exemplary An assignment with a rubric or test was used	Target (e.g., 80% of students get level 3) Goal/Benchmark: At least 80% of students will receive a B or better on assignment or test	Results At least 80% of students received a B or better on each assignment for the direct measures from each course
Systems. Demonstrate knowledge of systems engineering principles that allows graduates to manage and/or contribute to the development of new unmanned vehicle systems and related sub- systems.	UAV 303 (certificate students from UAV 301/601 and UAV 402/702)	Two direct measures used (from classroom work)	An assignment with a rubric or test was used	Goal/Benchmark: At least 80% of students will receive a B or better on assignment or test	At least 80% of students received a B or better on each assignment for the direct measures from each course
Program Goals: Master of Science in Unmanned	Course Outcomes	Direct Measures (how will this	Assessment Method: Rubric	Target (e.g., 80% of students get level 3)	Results

Vehicle Systems Engineering Master the principles of systems engineering to prepare students to manage the development of new unmanned systems.	(aligned to a program goal) UAV 301/601, UAV 303, UAV 402/702	outcome be measured?) Two direct measures used (from classroom work)	1=unsat 2=sat 3=competent 4-=exemplary An assignment with a rubric or test was used	Goal/Benchmark: At least 80% of students will receive a B or better on assignment or test	At least 80% of students received a B or better on each assignment for the direct measures from each course
Demonstrate a strong technical knowledge in their field so that they can lead and direct engineering and scientific industry teams in their chosen field of study.	UAV 301/601, UAV 303, UAV 402/702, UAV 604	Two direct measures used (from classroom work)	An assignment with a rubric or test was used	Goal/Benchmark: At least 80% of students will receive a B or better on assignment or test	At least 80% of students received a B or better on each assignment for the direct measures from each course
Foster innovation of new ideas, methods and techniques in unmanned systems engineering.	UAV 301/601, UAV 303, UAV 402/702	Two direct measures used (from classroom work)	An assignment with a rubric or test was used	Goal/Benchmark: At least 80% of students will receive a B or better on assignment or test	At least 80% of students received a B or better on each assignment for the direct measures from each course
Program Goals: Doctorate of Science in Unmanned Vehicle	Course Outcomes	Direct Measures	Assessment Method: Rubric 1=unsat 2=sat	Target (e.g., 80% of students get level 3)	Results

Systems			3=competent		
Engineering			4-=exemplary		
Demonstrate an ability to conduct original independent research and make significant contributions to the current body of scientific knowledge in unmanned systems technology and development.	RES 771, UXV 805, RES 901, UAV 801, UAV 809	Two direct measures used (from classroom work)	An assignment with a rubric or test was used	Goal/Benchmark: At least 80% of students will receive a B or better on assignment or test	At least 80% of students received a B or better on each assignment for the direct measures from each course
Develop and apply advanced experimental and/or computational skills appropriate to a professional researcher in the field of unmanned systems.	RES 771, RES 901, UAV 801, UAV 809	Two direct measures used (from classroom work)	An assignment with a rubric or test was used	Goal/Benchmark: At least 80% of students will receive a B or better on assignment or test	At least 80% of students received a B or better on each assignment for the direct measures from each course
Lead unmanned systems research programs and communicate the findings in scientific forums.	UAV 801, RES 901, UAV 801, UAV 809	Two direct measures used (from classroom work)	An assignment with a rubric or test was used	Goal/Benchmark: At least 80% of students will receive a B or better on assignment or test	At least 80% of students received a B or better on each assignment for the direct measures from each course
Reach the highest academic level with the potential to become a leader and an authority in	UAV 801, RES 901, UAV 801, UAV 809	Two direct measures used (from classroom work)	An assignment with a rubric or test was used	Goal/Benchmark: At least 80% of students will receive a B or	At least 80% of students received a B or better on each assignment for the

unmanned		better on assignment	direct measures from
systems and		or test	each course
technologies.			