

UASTEP Advisory Committee Minutes

Date: 7/31/2018, 10-11:30AM

Location: Palomar College (NS-127)

Members Present:

1. Hannah Walchak, Escondido Creek Conservancy
2. Joseph Kerski, ESRI
3. Roy Batchelor, Fallbrook Land Conservancy
4. Will Shakespeare, Fallbrook Land Conservancy
5. Todd Hill, Independent contractor
6. Brian Simpson, National University
7. Wing Cheung, Palomar College
8. Daniel Finkenthal, Palomar College
9. Brenda Morris, Palomar College
10. Sean Figg, Palomar College
11. Mark Bealo, Palomar College
12. Jesse Gipe, San Diego Economic Development Corporation
13. Matt Barre, Slant Range
14. Ken Yanow, Southwestern College
15. Jesus Ulloa-Higuera (Leo), Sweetwater Union High School District
16. Jo Schubert, UC Irvine
17. Emily Perkins, USGS
18. Chris Carter, Virginia Space Grant Consortium
19. David Webb, John Tyler Community College
20. Cherie Aukland, Thomas Nelson Community College
21. Dave West, Vista High School
22. Candiya Mann, Washington State University
23. Ruby Flores, Santa Ana College
24. Dori Dumon, Santa Ana College
25. Ali Kowsari, Santa Ana College
26. Eric Hanscom, Intercontinental IP
27. Gus Calderon, Airspace Consulting
28. Eric Delucien, UCSD
29. David Dengler, Robotic Air
30. Linda Kurokawa, Mira Costa College
31. Vincent DiNoto, Jefferson Community and Technical College
32. Richard Albistegui-Dubois, Palomar College
33. Michelle Palmer, Palomar College
34. Mikela Garza, Palomar College

I. Introductions

II. Past meeting minutes were reviewed. Will moved for approval. Sean seconded. Minutes were approved by the committee. Richard abstained.

III. Review of grant activities:

a. Goal 1:

Wing provided an overview of the already-approved Drone Certificate of Achievement and Associate's Degree programs at Palomar College, as well as the

upcoming Drone Certificate of Achievement at Southwestern College (expected Fall 2019).

Committee members were polled on an appropriate name for the programs being created at Palomar College and Southwestern College, Committee members overwhelmingly agreed that the word “Drone” should be in the program titles in order to help students locate the programs. It was suggested that Unmanned Aircraft Systems can be added in parentheses or as the sub program name. The use of Google Trends to assess popular keywords to use for program names was also suggested.

Poll result shows that 48.4% of the attendees were in favor of the name “Drone Technology Program” and the runner-up is “Unmanned Aircraft System Technician Program” with 16.1% of the votes.

b. Goal 2:

Wing spoke about upcoming professional development workshop primarily for educators from Palomar and Southwestern College. Over two weekends, participants will learn to operate drones, collect and process data, and write a short lesson for their courses. A \$700 stipend will be provided to successful completers.

Ken mentioned that the workshop will also be opened to high school educators if space is available.

c. Goal 3:

Business courses that are part of the Drone Associate’s Degree at Palomar College have been articulated with National University and UCSD Extension in order to provide additional educational pathways for students.

d. Goal 4:

Wing spoke about the various activities that the grant project team completed in order to broaden the impact of the project, including the Drone Summer Camp for high school students jointly organized with the Fallbrook Land Conservancy, various publications in Directions Magazine, Drone-Con 2018, and various public and professional talks.

Leo and Ken spoke about the quadcopter challenge that has been successfully implemented at Sweetwater Union High School District, as well as plans to modify the competition into a hexacopter challenge and to create a drone racing

league in the upcoming year. There are plans to involve Vista High School in the hexacopter challenge in the upcoming year.

IV. Curriculum Review

Committee members were provided several minutes to look over the course outline and objectives for each of the four drone-related courses that were developed in the past academic year, and then were asked to vote on whether they believe the courses satisfy their respective objectives.

Regarding the **N GEOG 900 course (Drone Safety and Applications)**, the course has the potential to promote the responsible use of drones:

- 37.1% strongly agree
- 33.3% agree
- 0% neither agree nor disagree
- 0% disagree
- 0% strongly disagree
- 29.6% no answer

Regarding the **GEOL 158 course (Part 107)**, the course adequately prepares students for the FAA's Part 107 examination:

- 40.8% strongly agree
- 22.2% agree
- 7.4% neither agree nor disagree
- 3.7% disagree
- 0% strongly disagree
- 25.9% no answer

Regarding the **BMGT 153 course (Small Business Entrepreneurship)**, the course adequately prepares students to design, start, and manage a successful entrepreneur business:

- 29.6% strongly agree
- 14.8% agree
- 11.1% neither agree nor disagree
- 3.7% disagree
- 0% strongly disagree
- 40.8% no answer

Regarding the **GEOG 140 course (Remote Sensing and Drone Data Processing)**, the course adequately prepares students to process and analyze drone data:

- 37% strongly agree

- 25.9% agree
- 0% neither agree nor disagree
- 0% disagree
- 0% strongly disagree
- 37.1% no answer

The large percentage of nonresponse made it difficult to interpret the results of the polls. But for the most part, in three of the four courses, at least 60% of the committee strongly agree or agree that the courses were capable of meeting the course objectives which contribute toward the success of the grant project.

The relatively lower level of agreement for the small business entrepreneurship course (44.4% of participants strongly agree or agree that the courses were capable of meeting the course objectives) can be partly explained by the higher level of nonresponse for that question. In addition, the unique structure of the course, where drone technology is not specifically mentioned in the course outline, but instead, students in the course who are interested in drones can receive mentorship from industry-specific “business coaches”.

- V. When asked about labor market trends in the drone industry, committee members provided two key insights:
 - a. There are few jobs in the market now with drone specific titles.
 - b. Many who are hired to work with drones are hired on as a specialist in an allied field (e.g. GIS, Videography), and also tasked with drone operation for the organization.

- VI. Wing mentioned that the project team will be exhibiting or presenting at Commercial UAV Expo, URISA GIS Pro Conference, and NSF ATE PI Conference in the coming months.

The committee suggested the Maker Faire, San Diego Fleet Week, and Miramar Air Shows as other potential exhibition opportunities to consider.

Meeting adjourned at 11:33AM.