The Value of Student Research: APUS Initiatives in Support of Online Education APUS/PSO Space Education & Strategic Applications Conference September 19-20, 2024

1. Purpose of the Workshop

To describe the role of student research in online higher education and to highlight APUS research initiatives.

2. Rationale

Online education is an increasingly popular modality, especially in higher education. Online education offers students an affordable and flexible option but can be isolating. In order to provide a comparable experience to traditional schooling, online universities must give care to create both social and educational opportunities that will enhance the student experience and enrich classroom learning. As a fully online, asynchronous university, APUS is committed to providing quality education for its students. One of the most important enrichments provided by the APUS Space Studies department is its online student research groups. These provide students with the opportunity to develop relationships with peers and teachers; to gain experience analyzing astronomical datasets; and to contribute meaningfully to the Space Studies field. Two of the premier student research groups at APUS include the Supernova Search Group and the Exoplanet Research Group; these both utilize APUS' Wallace E. Boston Observatory, which houses a research-grade 24-in planewave telescope, to perform astronomical research. The Supernova Search Group is a large, inclusive organization which gives students the opportunity to work with telescope images to detect transient objects over a large portion of the night sky. The Exoplanet Research Group is an exclusive student team which analyzes exoplanet transit observations.

The purpose of this workshop is to highlight the function and development of fully online student research groups at APUS.

3. Workshop Panels/Sessions (Questions will be entertained after each presentation)

Panel Moderator: Ed Albin

4. Presenters Information

1. Ed Albin, Ph.D.

Department Chair, Space Studies American Astronomical Society and GSA Member *Moderator, The Importance of Student Research*

2. Kristen Miller, Ph.D.

Professor, Department of Space Studies, American Public University System Faculty Advisor, APUS Analog Research Group Faculty Advisor, APUS Supernova Search Group

Co-Advisor, APUS Exoplanet Research Group

Co-Advisor for the American Institute of Aeronautics and Astronautics, APUS Student Chapter

Co-Editor in Chief, SESA Journal

The APUS Supernova Search Group

3. *Katelyn Milliman*, Ph.D.

Assistant Professor, Department of Space Studies, American Public University System

Co-Advisor, APUS Exoplanet Research Group

Faculty Advisor, Students for the Exploration and Development of Space, APUS student Chapter

The APUS Exoplanet Research Group

4. Michael Zeilnhofer, Ph.D.

Part-Time Instructor, Department of Space Studies, American Public University System

Co-Advisor, APUS Exoplanet Research Group

Faculty Advisor, Students for the Exploration and Development of Space, APUS student Chapter

The APUS Exoplanet Research Group

5. Terry Trevino, Ms.

Wallace E. Boston Observatory Assistant Co-Advisor, APUS Exoplanet Research Group

Doctoral Student, University of North Dakota Using the Wallace E Boston Observatory for Research

6. Jeremy Wood, Ph.D.

Part-Time Instructor, Department of Space Studies, American Public University System Will be using ACCESS supercomputing services to study White Dwarf Contamination