

# DEPARTMENT OF ASTRONAUTICAL ENGINEERING

## ASTE SEMINAR

### An Undergraduate and Graduate Research Project: Creating an International Lunar University and Living and Working on the Moon in the Near Term



**Dr. James Wertz**  
**Adjunct Professor, University of Southern California**  
**President, Microcosm Inc.**

Dr. Wertz is an Adjunct Professor at USC and the President of Microcosm. His expertise ranges from topics such as space mission engineering, low-cost space and launch systems, autonomous navigation and orbit control, satellite orbit and attitude systems, and low-cost lunar missions.

The NASA RASC-AL (Revolutionary Aerospace Systems Concepts – Academic Linkage) student competition has a topic this year in “Sustained Lunar Evolution” that fits very well with the spring, 2025 ASTE 523 course in “Near-Term Lunar Colonies.” The competition is open to a university group with undergraduate and graduate students. Unfortunately, there is no monetary award, but we will use the project as a substitute for the course final exam. (You don’t have to take the course to join the competition group.)

Recent research suggests that we should be able to create a profitable, income-generating lunar settlement and an international lunar university that would allow graduate students, faculty, entrepreneurs, and tourists to live, work, and vacation on the Moon in the next 5 to 10 years at moderate cost. There is a catch, however. This needs to be a commercial activity – selling products, vacations, real estate, sponsored research, and other commercial elements and activities and making a rather large profit. Of course, that profit comes in part from advertising on the Earth for the product or information that you are developing on the Moon. Unfortunately, traditional astronautics professionals know zero (or less) about marketing and commercial activity.

We’re offering this seminar (and introduction to the spring semester course at USC) for undergraduate and graduate students and faculty in any area (even astronautics) to get your input, ideas, and wisdom on how to do this and to see if you would be interested in working on USC’s NASA RASC-AL Student Competition for Sustained Lunar Colonization.

It will take a range of skills to achieve this – marketing, business, legal, science, architecture, engineering and quite a few more. Come join us to discuss how this could work for your students, your colleagues, or you. There is literally a new world available to us. Any questions? Send them to [jwertz@smad.com](mailto:jwertz@smad.com).

**Thursday, Sept. 12, 3:00-4:00 PM**

**USC RTH 306 or via Zoom at**

**<https://usc.zoom.us/j/95576853605?pwd=kYw0tmdC73laHlqWz4aaZkk1vfC4rD.1>**

**Meeting ID: 955 7685 3605. Passcode: 932666**

**Refreshments will be served prior to the seminar**