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For Immediate Release

FIRST-EVER NASA GRANT TO TAKE LOS ANGELES PIERCE COLLEGE STUDENTS INTO VIRTUAL SOLAR SYSTEM

Woodland Hills, CA – Los Angeles Pierce College Students will soon embark on a virtual journey through the solar system using current techniques and tools they design in a new lab course, thanks to the College's first-ever grant partnership with the National Aeronautics and Space Administration (NASA).

NASA selected a proposal by Travis Orloff, Associate Professor of Physics and Planetary Science at Pierce College, as one of five winning recipients nationwide to share a \$1.4 million Science, Technology, Engineering and Math (STEM) grant for minority-serving colleges. The \$314,000 award will allow Associate Professor Orloff and Pierce College to develop and outfit a laboratory where students can explore the solar system.

Orloff's winning proposal is to devise a lab that will complement his existing Introduction to the Solar System lecture course. The lab course will provide hands-on learning opportunities that will aid in creating a direct path for students interested in space science to transfer to four-year schools.

"When I saw this grant, I knew it was a perfect fit for the solar system lab class that I had in the back of my mind," Orloff said. "It was geared specifically for a minority-serving community college to design a class that enhances understanding of space technology."

The grant will also provide five paid internships for participating Pierce College minority students to work directly with scientists at NASA's Jet Propulsion Laboratory (JPL) in Pasadena, Calif.

Orloff characterized the JPL internships as "potentially life-changing opportunities for students."

The class will cover major aspects of space technology – rocketry, 3D printing and robotics – all needed to explore the solar system.

"This might be the first time many students launch a model rocket, build and operate a robot, or 3D print their own objects that they design – something that they find fascinating," Orloff said.

Students will use these tools and techniques to understand how the solar system has been explored in past, present, and future space missions.

"We'll learn about the instruments on spacecraft such as radar, spectrometry and laser altimetry, and how they tell us about the natural world around us," he said.

Pierce College will collaborate with JPL to accomplish the goals and objectives of the grant over a 15-month period of performance. Under Orloff's direction, the solar system lab will be outfitted with equipment over the next several months, with the first lab course offered in fall of 2019.

Orloff plans to buy meteorite samples his students can hold in their hands.

"I'm hoping to buy a piece of Mars that fell to the earth," he said.

NASA's Minority University Research and Education Project (MUREP) sponsored the grant as one of its initiatives to assist minority-serving institutions in reaching underrepresented populations. The MUREP Innovations in Space Technology Curriculum (MISTC) awards align with the priorities of the agency's Space Technology Mission Directorate, which is responsible for developing the crosscutting, pioneering new technologies and capabilities the agency needs for current and future missions.

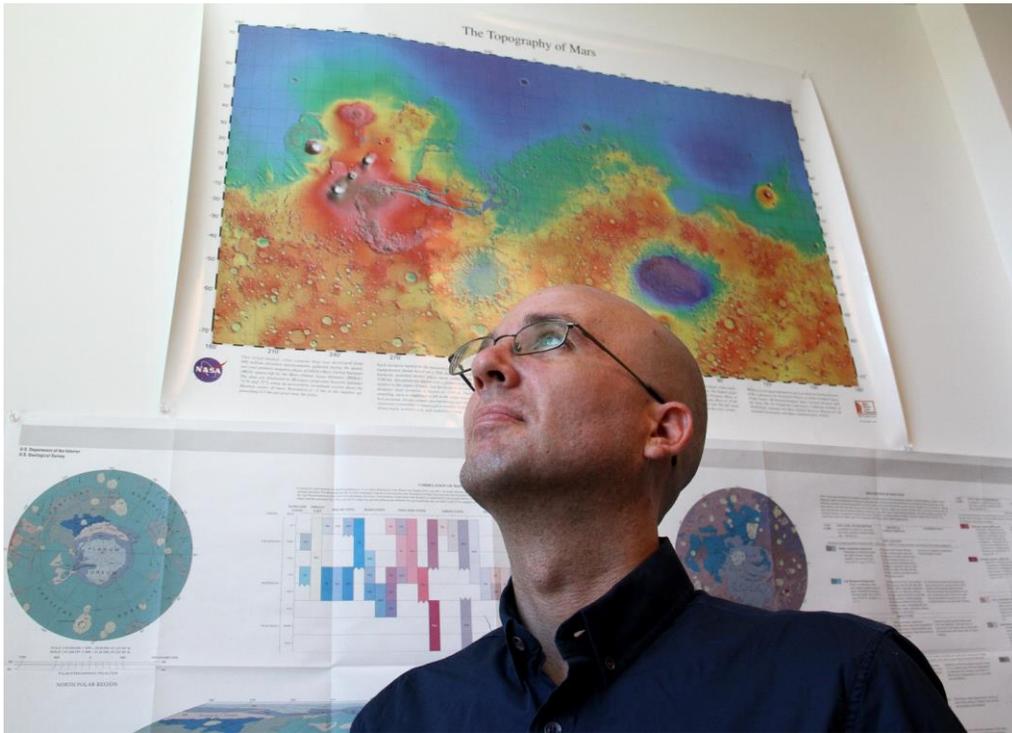
For a list of NASA'S selected organizations and project descriptions, visit <https://go.nasa.gov/2vd6hxN>. For information about NASA's education programs, visit <https://www.nasa.gov/education>.

Los Angeles Pierce College is recognized as one of the most respected community colleges and transfer institutions in California. Located on 426 acres in the western San Fernando Valley, the College's comprehensive curriculum and support services enable its 21,000 students to earn associate degrees and certificates, prepare for university transfer, and gain career education proficiency. Pierce is one of nine colleges of the Los Angeles Community College District (LACCD), www.laccd.edu, the nation's largest community college district, with an annual enrollment of nearly 250,000 students.

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FACT SHEET
NASA MUREP/PIERCE COLLEGE GRANT
AUGUST 24, 2018

- Professor Travis Orloff of Pierce College's Department of Physics and Planetary Sciences, who earned his master's degree at U.C. Santa Cruz, is the principal investigator/project director/grant awardee
- NASA has selected Pierce as one of five community colleges nationwide to share a \$1.4 million Science, Math, Engineering and Technology (STEM) grant for minority-serving colleges. This is the first-ever NASA grant for Pierce College.
- Pierce is one of just two of California's 114 community colleges to receive this grant. The other is College of the Desert. The \$314,000 award to Pierce will allow the college to develop and outfit a laboratory in which students can explore the solar system.
- Creates and pilots a lab course to complement Pierce's Introduction to the Solar System lecture course.
- The entire class will design its own spacecraft mission, then build a miniature version of that mission using the robots they built and the 3D objects they designed
- Lab topics include meteoritics, orbital mechanics, space flight, rocketry, robotics, and 3D printing. Orbital Mechanics and Space Flight will use the popular video game Kerbal Space Program as a teaching tool.
- Participants will handle and make observations of meteorites older than Earth itself
- Provides five paid internships for participating minority students at NASA's Jet Propulsion Laboratory in Pasadena, where they will work with scientists on JPL projects.
- Lab will cover major aspects of space technology such as rocketry, 3D printing and robotics in order to explore the solar system. Lab will feature instruments on spacecraft such as radar, spectrometry and laser altimetry
- NASA's Minority University Research and Education Project (MUREP) sponsored the grant as one of its initiatives to assist minority-serving institutions in reaching underrepresented populations.
- The MUREP Innovations in Space Technology Curriculum (MISTC) awards align with the priorities of the agency's Space Technology Mission Directorate, which is responsible for developing the crosscutting, pioneering new technologies.



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