

UTPB Utilizes NASA Grant to Enhance After-School STEM Program for Local Middle School Students

ODESSA, TX, UNITED STATES, March 20, 2025 /EINPresswire.com/ -- The University of Texas Permian Basin has been awarded funding as part of the New Worlds Await You-II (NWAY-II) grant, a NASA-supported initiative aimed at engaging students in space-related STEM education. The grant, awarded in March 2024, is managed by the WEX Foundation, with UTPB serving as a sub-awardee alongside Eastern New Mexico University and the University of Texas at San Antonio.

This funding enables UTPB to enhance its after-school STEM program, which immerses local middle school students in space research and hands-on learning. The initiative is designed to inspire the next generation of scientists,

engineers, and educators by tackling real-world challenges in space exploration.

"Our UTPB UTeach teacher candidates attend after-school programming for one hour per week, guiding students through a 14-week curriculum," said Paula Gutierrez, Lecturer in the Department of Biology at UTPB. "Students work on designing and building lunar habitats, simulating how astronauts could survive in lunar lava tubes—an actual research focus in space science today."

Throughout the program, students learn about essential survival needs, including energy sources, food, hygiene, medical care, and quality-of-life considerations. They develop blueprints for lunar habitats and present their designs to industry experts for feedback before constructing 3D models and producing videos for a final competition.

The program not only benefits young learners but also provides UTPB's future educators with invaluable classroom experience.



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Paula Gutierrez

"Our teacher candidates receive hands-on training in STEM education while building relationships with students over the course of a semester," Gutierrez explained. "They gain practical skills in classroom management, organization, and conflict resolution, all while engaging in a meaningful educational experience."

RosAaliyah Olguin, a UTPB Geoscience major and NWAY grant program recipient, has seen the impact of the

program firsthand.

"Being part of the after-school program has helped me build confidence in the classroom and in teaching STEM," Olguin said. "NWAY is an amazing opportunity to work with students from diverse backgrounds and connect with mentors who share their passion for science." UTPB student assisting middle school student with STEM work

Olguin also emphasized the program's excitement factor for middle schoolers.

"The students love the friendly competition in designing their lunar habitats," she said. "It's a fun way for them to showcase their STEM skills, especially in space exploration."

Beyond its benefits for students and future teachers, the grant represents a major step forward in expanding STEM education in the Permian Basin.

"For our community, this means providing high-quality, space-focused STEM programming to middle school students at no cost," Gutierrez noted. "Many after-school programs target elementary or high school students, so we're addressing a gap by reaching middle schoolers—an often-overlooked group."

The initiative is currently active at three campuses in the Midland-Odessa area, with expansion opportunities on the horizon. Teacher candidates also receive stipends for their participation, and UTPB will begin recruiting for the next cohort of NWAY Leaders in April.

As UTPB continues to foster innovation and learning through programs like this, students and educators alike are gaining the skills and inspiration to shape the future of STEM.

For more information about the NWAY-II program and how to get involved, email Paula Gutierrez at gutierrez_p@uptb.edu.

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