

EXPO 2025 Awards Ceremony



Winners for ORAL Presentations

Graduate STEM

First place: John Steinman [§]

Matrix-Free Linear Algebra for Trajectory Optimization.

Mentor: Dr. Matthias Heinkenschloss [§]

Co-authors: Aurya Javeed [#], Drew Kouri [#], Denis Ridzal [#], and Isaac M. Ross [%]

[§] Rice University, Houston, Texas

[#] Sandia National Laboratories, Albuquerque, New Mexico

[%] Naval Postgraduate School, Monterey, California

Second place: Kenechukwu Chikezie [§]

Highly Selective Dual-Mode Chemosensor for Hg²⁺ and Cu²⁺ Detection with Distinct Fluorescence Switching in Aqueous DMSO Solution.

Mentor: Dr. Zhifo Guo [§]

[§] Department of Chemistry & Biochemistry, Lamar U.

Third place: Jiyeon Jeon [§]

The Effect of Short Chain Fatty Acids and Eicosapentaenoic acid on Ethanol-induced Neuroinflammation in the SH-SY5Y cell.

Mentor: Dr. Ashwini Kucknoor [§]

[§] Department of Biology, Lamar U.

Graduate HASBSEB

First place: Avinash Sah [§]

Preparing Future Educators with Engaging Port Education & Activities.

Mentor: Dr. Mamta Singh [#]

[§] Department of Mechanical Engineering, Lamar U.

[#] Department of Curriculum & Instruction, Lamar U.

Second place: Mikayla Renwick ^{§, #}

Shaping Cities: Understanding the Impact of the Great Migration on Cultural Freedom.

Mentor: Dr. Asha Winfield [§]

[§] Department of Communication & Media, Manship School, Louisiana State U.

[#] Department of Communication, Texas A&M

Third place: Hayli Hunter [§]

Striking Back: Megan Thee Stallion's 'Cobra' as a Narrative of Black Feminist Resilience.

Tie with : **Carolyne Tarver** [§]

Becky with Good Hair? The Perpetuation of Eurocentric Dating Preferences, Black Women & Contemporary Dating Shows.

Mentor: Dr. Asha Winfield [§]

[§] Department of Communication & Media, Manship School, Louisiana State U.



OFFICE OF UNDERGRADUATE RESEARCH
LAMAR UNIVERSITY

EXPO 2025 Awards Ceremony

Galloway-Business bldg. — Landes 101

May 5, 2025 — 1:00 — 3:00 pm

EXPO 2025, which is the annual exhibition of student research and creative work at Lamar, continued the tradition to showcase research done over the fall and spring semesters at undergraduate and graduate levels, from various STEM and HASBSEB academic areas. This year we had the privilege to welcome four special guest speakers: Dr. Lloyd Lumata, Assoc Prof at UT Dallas, Mr. Larry Toups, Assoc Prof of Space Architecture at University of Houston (U of H), Dr. Asha Winfield, Assis Prof at Louisiana State University (LSU), and Dr. Joshua Guitar, Assis Prof at Kean University. Student visitors from UT Dallas, UT Arlington, Texas A&M, LSU, U of H, U of H—Downtown, and the Galveston College have presented their research in oral and poster sessions. We had a total of 98 presentations from various academic areas including mathematics, AI, biology, chemistry, geology, physics, communication and film, exercise science, education, business, engineering, and more. We had nine parallel workshops on various topics. *Kudos to all participants to EXPO 2025 for their high quality presentations!* Several companies including Entergy, PumpTEX Inc., CAVU—Intl, and academia such as Durham University in UK, and the Sasakawa International Center of Space Architecture from U of H, offered nice booths and short presentations. We heartily welcomed the group from the Galveston College led by Dr. Barbara Dover. *We thank heartily President Taylor, Dr. Jator, and Dr. Theodori for their presence and continued support to O.U.R. events.* **Dr. Cristian Bahrim**

Important Dates for Summer—Fall 2025

June 2 — SURF 2025 Kick-off Day for summer research.

September 5 — O.U.R. Kick-off Day and the SURF 2025 Symposium.

October 15 — U.R.G. proposals submission deadline for Y2025-26 grants.

November 14 — The O.U.R. 2025 Fall Conference.

December 1 — Awards Ceremony for the O.U.R. 2025 Fall Conference

EXPO 2025 Awards Ceremony



Winners for POSTER Presentations

Undergraduate STEM

First place: Lizbeth Perez \$,#

Creep Test Rig.

Co-authors: Daniela Amely Muno # and Keyty Michel Loza #

Mentor: Dr. Robert Kelley Bradley \$

\$ Department of Industrial and System Engineering, Lamar U.

Galveston Community College, Galveston

Second place: George Guy \$

Advanced Technologies and Its Growing Role in Modern Construction.

Co-authors: Bryce McMorris \$, Jacob Perales \$, and De'asia Nickerson \$

Mentor: Dr. Minkyum Kim \$

\$ Reese Department of Construction Management, College of Business, Lamar U.

Third place: Brayan Alonso-Prieto \$

Impact of Back-Assist Exosuits on Productivity, Physical Capability, and Health Outcomes in Construction Work.

Co-authors: Bryce McMorris \$, Jacob Perales \$, and De'asia Nickerson \$

Mentor: Dr. Minkyum Kim \$

\$ Reese Department of Construction Management, College of Business, Lamar U.

Undergraduate HASBSEB

Winner: Allison Deras \$

Classroom Seating Preference and Auditory Capabilities in Students with Hearing Loss .

Mentor: Priyanka Jaisinghani \$

\$ Department of Speech and Hearing Sciences, Lamar U.

Graduate Level

Winner: Jannatul Hur \$

Enhancing Learning Efficiency and Ergonomic Well-Being: A Comparative Study of Hand-written, AI-Assisted, and Digitally Structured Notetaking.

Co-authors: Lauren Franklin \$ and Muhammad Shaheryar Ali Khan \$

Mentor: Dr. Yueqing Li \$

\$ Department of Industrial and Systems Engineering, Lamar U.



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Undergraduate STEM

First place: Mohamed Irhabi \$

Retinal Microvascular Imaging via Optical Coherence Tomography Angiography for Non-Invasive Biomarker Development in Small Vessel Disease & Ischemic Stroke Prognostication.

Mentors: Dr. Ioannis Petropoulos \$ and Dr. Ashwini Kucknoor \$

\$ Department of Biology, Lamar U.

Department of Research in Medicine, Weill Cornell Medicine.

Second place: Christian Schmidt \$

Extracting Observables from Trajectum, a Heavy-Ion Collision Model.

Mentor: Dr. Rene Bellwied \$

\$ Department of Physics, College of Natural Sciences & Mathematics, University of Houston

Third place: Austin Robertson \$

Predicting Future Deforestation Hotspots Using Deep Learning and Satellite Images.

Mentor: Dr. Jane Liu \$

\$ Department of Computer Science, Lamar U.

Undergraduate HASBSEB

First place: Ramona Young \$

A Vertigo of Fear: Hitchcock's Psychological and Technical Mastery of Stairs and Falling.

Mentor: Mr. Andre Favors #

\$ University Studies, Lamar U.

Department of Communications and Media, Lamar U.

First place: Maryah Javed \$

Navigating Maritime Education: Insights from Elementary Students .

Mentor: Dr. Mamta Singh #

\$ Department of Nutrition, Lamar U

Department of Curriculum & Instruction, Lamar U.

Second place: Justin Ford \$

How Microtransactions Have Evolved in Modern Gaming.

Mentor: Dr. Sara P Hillin \$

\$ Department of English and Modern Languages, Lamar U.

Third place: Carolina Lizbeth Hernandez \$

iOYE! Abre tus ojos: To Hispanic/Latino Sign Language Interpreter Hardships .

Mentor: Dr. Douglas C. Williams Jr \$

\$ Deaf Studies and Deaf Education, Lamar U .