UNM-Valencia Virtual STEM-H Week - April 28-30 and May 3

Co-sponsored by R²S² and Facebook Los Lunas Data Center

Virtual Sessions via Zoom

Wednesday, April 28
9:30 - 10:30 am
Professional Panel

STEM DEMONSTRATIONS
11 am - 12:15 pm
Combat Robotics by Dr. O’Malley, Assistant Professor of Mechanical Engineering, NM Tech
STEM Kits to first 100 Students to Register

1:10 - 2:10 pm
Scanning Electron Microscopy by Victor French, Lecturer II in Science, UNM-Valencia

Thursday, April 29
9:30 - 10:30 am
Student Panel

STEM DEMONSTRATIONS
11 am - 12:15 pm
Solar Tower Test by Dr. Kenneth Armijo, Systems Engineer, Sandia National Laboratory
STEM Kits to first 95 Students to Register

1:10 - 2:10 pm
Code by Any Other Name by Amy Knowles, Instructor/ WiCS Coordinator, Computer Science and Engineering, NM Tech

Friday, April 30
9:30 - 10:30 am
Faculty Panel

STEM DEMONSTRATIONS
11 am - 12:15 pm
Chemistry by Dr. Jerry Godbout, Assistant Professor of Chemistry, UNM-Valencia

1:10 - 2:10 pm
Physics of Rotation by Dr. Clifton Murray, Associate Professor of Mathematics, UNM-Valencia
STEM Kits to first 100 Students to Register

Monday, May 3
Undergraduate Research Day
1:30 - 3 pm
Student Presentations

Dr. Ben Flicker and student Aida Nevarez conduct research at the Rio Grande.
Dr. Kenneth Armijo - Sandia National Laboratory

A Systems Engineer, he leads molten salt and molten alkali metals research and development at Sandia National Laboratories National Solar Thermal Test Facility (NSTTF). He also serves as a lead test engineer for high-temperature materials research for power towers and solar furnace investigations. Dr. Armijo received his Ph.D. in mechanical engineering and a Masters in Science from the University of California-Berkeley and his Bachelor of Science in Mechanical Engineering from The University of New Mexico (UNM). He is a Belen High School graduate and a former UNM-Valencia student.

Ray Campos - Kirtland Air Force Base

He is a Special Programs Systems Engineer at the Air Force Nuclear Weapons Center at Kirtland Air Force Base. He was born in Lima, Peru, and immigrated to the United States at the age of 5. He served in the USAF and retired in 2019 after 21 years of service with two tours to Iraq. With a passion for STEM, he serves on the 2021 board of directors for Explora Children's Museum. He received his Bachelor of Science in Mechanical Engineering from the University of New Mexico and is currently pursuing his masters degree in Nuclear Command, Control, and Communication Systems Engineering.

Dr. Bill Gutman - Spaceport America

He has been the Director of Aerospace Operations at Spaceport America since October 2009. His major responsibilities are to oversee flight safety, facilitate customer operations, maintain the FAA launch site operator license, and assist with infrastructure planning and development. As a former New Mexico State University Physical Science Laboratory employee, he worked on research in propagation of high power laser radiation, investigation of the optical properties of military smoke materials, development of optical instrumentation systems, and development of risk assessment methodologies for aviation and space launch systems. He received his Ph.D. in optical and molecular physics from Ohio State University.

Sheri Breanne Lopez - Sandia National Laboratory

She is a Computer-Aided Design and Drafting Technician at Sandia National Laboratory. Although she aced her math and science classes in high school, the small, poor community she grew up in never pictured her as someone who could excel in a technical field. She was pushed more towards pursuing her musical talents as a mariachi singer and guitar player or towards English. She even attempted to write the Great Native American Novel. But when her father counseled her to try engineering, she got an Associates Degree in Pre-Engineering and learned how to draft using CADD software. Now she has a job she loves and counsels high school students to consider it as a career path.

Tony Perea - Facebook Los Lunas Data Center

He is the Site Manager at the Facebook Los Lunas Data Center. A graduate of Albuquerque High School, he served in the US Navy and was enlisted for six years as a Cryptologic Technician in the Naval Intelligence organization. He has worked as an Engineer for the National Security Agency, the Aircrew Training and Rehearsal Flight Simulator Facility at Kirtland AFB, and at Sandia National Laboratory. He was also a Manager supporting Sandia’s Enterprise High-Performance Computing Data Centers prior to his current position. Tony attended undergraduate and graduate studies at the University of Maryland and University of Phoenix and earned his Bachelor’s and Master’s degrees in Computer Science and Management Information Systems.

Dr. Tony Perea

Dr. Jerry Godbout

Assistant Professor of Chemistry

Dr. O’Malley, Assistant Professor of Mechanical Engineering, NM Tech, will provide a combat robotics demonstration with STEM Kits provided to the first 100 registrants. Students have an opportunity to participate in a NM Tech combat robotics competition.

Amy Knowles

Instructor/ WiCS Coordinator, Computer Science and Engineering, NM Tech, will lead an interactive workshop using an esoteric coding language, Shakespeare Programming Language, in which students will learn the basic tenets of the coding (and even a little assembly) by writing and compiling a "play".

Glenda Kodas, R²S² Communication and Outreach Specialist at r2s2@unm.edu