



**2026 NM MESA PROFESSIONAL DEVELOPMENT CONFERENCE
EMBASSY SUITES, ALBUQUERQUE
AUGUST 31 – SEPTEMBER 1**

MONDAY, AUGUST 31, 2026:

TIME	DESCRIPTION	LOCATION
8:00-12:30	Advisor Registration	Registration Desk
8:30-12:30	Defensive Driving Certification (Optional)	Sandia VI
10:00-12:00	New Advisor Training	Sandia IV-V
12:45-3:00	General Session - Ling Faith-Heuertz, NM MESA Executive Director - Anita Gonzales, NM MESA Deputy Director - Brandon Rodriguez, NM MESA Alumni and Center for Collaborative Education	Sandia IV-V
3:15-5:15	Breakout Sessions	
4:15-6:00	Advisor Lounge	Sandia VIII

	SANDIA I	SANDIA II	SANDIA III	SANDIA IV-V	SANDIA VI	SANDIA VII	SANDIA VIII
3:15-4:15 SESSION 1	NM MESA: ThinkWave	NM MESA: MESA Curriculum & MESA USA Preparation	NM MESA: Integrating the Yearly Theme in Your MESA Time		NM MESA: Advisor Refresher Course	NM MESA: Aligning the Standards in Your MESA Time	NM MESA: NMAA Requirements in Depth
4:15-5:15 PARTNER		GearSTEM Robotics	Future Cities				

TIME	DESCRIPTION	LOCATION
4:15-5:15	Partner Open House	Pre-Convention Hallway and Breakout Rooms
6:00-8:00	MESA Recognition Banquet - NM MESA Board of Directors 2026 MESA USA: Anton Chico MS and Centennial HS 2026 Guenther Advisor Recognition 2026 MESA Day: Deming Intermediate MS and Centennial HS - Regional Highlights - Advisor Recognition	Sandia IV-V

TUESDAY, SEPTEMBER 1, 2026:

TIME	DESCRIPTION	LOCATION
7:00-8:00	Day 2 Sign In and Breakfast	Hotel Lobby
8:00-2:00	Breakout Sessions	
11:30-12:00	Hotel Check Out-Box Lunch Pick Up	Pre-Convention Hallway
2:00	Event Dismissal (Verify with Regional Coordinator Regional Dismissal Time)	

	SANDIA I	SANDIA II	SANDIA III	OCOTILLO	SANDIA VI	SANDIA VII	SANDIA VIII
8:00-9:00 SESSION 2	Society of Women Engineers: Women Innovators in STEM	GearSTEM Robotics	ASCEND-ADVANCE: AI Graduate Profiles in STEAM	Alliance for Indigenous Math Circles 1	Ag in the Classroom: Hydroponics for Classrooms 1	New Mexico Tech: NM MESA Bots	LANL Bradbury Museum: Building a Circuit
9:15-10:15 SESSION 3	Deming High School: Empowering Teachers with AI Tools in the Classroom	NM PED College & Career Readiness Bureau and Pathways 2 Careers	Asombro Institute for Science Education: Data Jam	Alliance for Indigenous Math Circles 2	Ag in the Classroom: Hydroponics for Classrooms 2	New Mexico Tech: Coding for a Project Using Arduino	
10:30-11:30 SESSION 4	New Mexico Tech: Drones & Biomimicry	UNM HSC of DEI: Communities to Careers	New Mexico Highlands University: Playing with STEAM	STEM Santa Fe		R4 Creating: 3D Printing 101	Explora: Exploring Density
12:00-2:00 REGIONAL MEETINGS	Southwest	North Central	Central Inner	North	West	Southeast	

2026 NM MESA PROFESSIONAL DEVELOPMENT CONFERENCE WORKSHOP DESCRIPTIONS:

ALLIANCE FOR INDIGENOUS MATH CIRCLES

Presenter(s): James Taylor, Donna Fernandez

Assigned Session: 2 & 3

Description: Latin squares and the vast variety of variants such as Sudokus present teachers and students grades K through 6 and beyond with a rich playing field for the development of cognitive and emotional tools. We will show how to start with these in kindergarten and progress into the investigation of abstract mathematics in upper elementary grades—and beyond. **Limited to 20 participants per session.**

ASCEND-ADVANCE, INC.

Presenter(s): Ferdi Serim, Curtis Clough

Assigned Session: 2

Workshop Title: Artful Intelligence: Bringing Graduate Profiles to life through STEAM

Description: ASCEND built hands-on activities for The Majesty of Music and Math, distributed by PBS LearningMedia, connecting CTE pathways by bringing the arts into STEM. Content standards get all the attention right now, but the thinking standards behind math — the reasoning, pattern-recognition, and abstract-thinking skills that make content actually stick — rarely get their own lesson plan. In under an hour, you'll see how these activities build those thinking skills into daily practice. You'll also build a real piece of career and life evidence yourself, using the same simple interview method New Mexico students use in a statewide out-of-school-time program — then leave with two easy ways to bring either one into your own classroom or MESA time, whether through an existing grant-funded partnership or on your own school's terms. **Limited to 20 participants per session.**

ASOMBRO INSTITUTE FOR SCIENCE EDUCATION

Presenter(s): Stephanie Bestelmeyer, Gabriela Franco

Assigned Session: 3

Workshop Title: Data Jam: Representing Real Data in Fun, Creative Ways

Description: Come to this hands-on session to learn about the Data Jam, an innovative and adaptable model created by the nonprofit Asombro Institute for Science Education. For more than a decade, thousands of students have participated in data jams; students interpret real, New Mexico data and then develop creative projects (e.g., poems, songs, infographics, physical models) to communicate a trend in the data to nonscientists. You'll leave with (a) access to three classroom-ready data jams using New Mexico data on climate, water conservation, and wildfire and (b) an understanding of how to apply the data jam model to any dataset. **Limited to 20 participants per session.**

CENTER FOR COLLABORATIVE EDUCATION

Presenter(s): Brandon Rodriguez

Assigned Session: Keynote Speaker and Partner Open House

Description: Brandon designs and leads pre-apprenticeship and internship programs that connect K–16 students with hands-on opportunities, especially in science, technology, engineering and math. His work builds bridges between schools, industries and research institutions to prepare the next generation of STEM innovators. Prior to joining CCE, Brandon spent nearly a decade at NASA's Jet Propulsion Laboratory developing curriculum and professional learning experiences for teachers nationwide. Earlier in his career, he worked as a research chemist in the private sector and taught at several universities, including Cal Poly Pomona and UC Riverside. Brandon holds teaching credentials in chemistry and physics and is a certified educator through NASA and National Geographic. Currently, Brandon is the Lead Science Communication Fellow on the E/V Nautilus Expedition Team.

DEFENSIVE DRIVING COURSE

Presenter(s): Marco Sanchez

Assigned Session: Pre-Conference

Workshop Title: Want to Drive a School Vehicle? Earn your Defensive Driving Certification.

Description: The New Mexico Department of Transportation (NMDOT) defensive driving courses help drivers dismiss traffic tickets, reduce license points, drive state vehicles, and qualify for insurance discounts. The curriculum emphasizes changing problem behaviors, defensive driving strategies, and current traffic laws. After successful completion, you will receive a certificate to present to your school district office. Advisors that want to receive a completion certificate will be required to attend the entire duration of the workshop and meet any requirements provided during the training. Instructor is a certified NMDOT instructor. **Pre-registration for this session is required by the event registration deadline through the registration process.**

DEMING HIGH SCHOOL

Presenter(s): Dr. Reynaldo Belen, Dr. John Valdes

Assigned Session: 3

Workshop Title: Empowering Teachers with AI Tools in the Classroom

Description: Artificial Intelligence is transforming education, offering new opportunities to enhance teaching, personalize learning, and increase student engagement. This session provides educators with a practical introduction to AI tools that can support instruction, streamline classroom tasks, and foster critical thinking while emphasizing the responsible and ethical use of AI. Participants will explore strategies for integrating AI into daily classroom practice in ways that promote student learning, creativity, and academic integrity. Attendees will: Understand the role and potential of AI in K–12 education; Explore practical AI tools that can enhance teaching, lesson planning, assessment, and student engagement; Learn strategies for integrating AI into classroom instruction while promoting ethical and responsible use; Discover ways to help students use AI to strengthen critical thinking, creativity, and problem-solving skills; Leave with classroom-ready resources and actionable ideas that can be implemented immediately. **Limited to 20 participants per session.**

EXPLORA

Presenter(s): Lauren Butcher and/or Explora Staff

Assigned Session: 4

Workshop Title: Exploring Density

Description: Explore hands-on density activities using everyday materials! Compare the densities of liquids, and design make a submarine that both sinks and floats. Consider what engineers need to know in order to separate mixtures in tanks, separators, and environmental cleanup. **Limited to 12 participants per session.**

FUTURE CITY COMPETITION NEW MEXICO REGION

Presenter(s): Lili Xiao Chi Yang, Justin Teo

Assigned Session: Partner Open House

Description: The Future City Competition is a STEM program that challenges students to imagine, design, and build cities 100 years in the future. Targeted primarily at middle school students, teams research and develop solutions to citywide issues, write an essay, build a physical scale model, and present their designs. The winning team advances to the national competition in Washington, D.C. This year's theme is Fire Resilient future. The New Mexico region started in 2012, and hundreds of

teams from across the state have participated since then. We would like to introduce you to the program and encourage students to explore and participate this wonderful STEM event.

GEARSTEM, INC.

Presenter(s): Zav Van Note Jim Jackson

Assigned Session: Partner Open House & 2

Workshop Title: GearSTEM Robotics

Description: Participants will learn about the FIRST Robotics Programs, including FIRST LEGO League, FIRST Tech Challenge and FIRST Robotics Competition. Explore small and medium size robots that participants can drive around in a partial game field. Discover how you can get your students engaged in hands-on STEM learning with grant opportunities.

LANL BRADBURY SCIENCE MUSEUM

Presenter(s): Emily Sanchez Katie Salas

Assigned Session: 2

Workshop Title: Building a Circuit

Description: During the session attendees will create a light up circuit art project. Attendees first begin creating their own art project that will end with designing or completing an electrical circuit. The art project will have a lighted component once circuit is complete. **Limited to 20 participants per session.**

NEW MEXICO AGRICULTURE IN THE CLASSROOM

Presenter(s): Shae Devers, Traci Curry, Ethan Wright

Assigned Session: 2 & 3

Workshop Title: Bringing Science to Life with Hydroponic Systems

Description: Bring science to life through hydroponics! In this hands-on workshop, educators will explore how plants grow, investigate the role of nutrients and environmental factors, and discover how hydroponic systems can be used to teach STEM concepts through real-world experimentation and observation. Participants will receive a **free classroom hydroponic system** to take back to their school, allowing students to grow plants year-round while engaging in authentic, hands-on science investigations. Leave with practical lessons, classroom resources, and the confidence to start growing with your students right away! **Limited to 15 participants per session.**

NEW MEXICO HIGHLANDS UNIVERSITY

Presenter(s): Dr. Benjamin J. Villarreal, Veronica Black

Assigned Session: 4

Workshop Title: Playing with STEAM: Games in the Classroom

Description: This session will introduce participants to card games designed for STEAM learning, such as EcoChains: Arctic Life (about arctic food chains) and Gutsy (about the microbiome of the gut). Participants will learn a little about the importance of play for learning, be introduced to some games, and have the opportunity to play head-to-head! Participants will also be provided with resources for where to find these games (all of which are available to download and print for free), as well as ideas for how to use them in their learning spaces. **Limited to 20 participants per session.**

NEW MEXICO TECH

Presenter(s): Dr. Mostafa Hassanalani

Assigned Session: 4

Workshop Title: Unlocking Nature's Secrets: Bioinspired Aerodynamics and Autonomous Drone Systems

Description: Over millions of years, nature has evolved highly efficient structures, materials, and mechanisms that enable remarkable capabilities in flight, sensing, navigation, and energy management. Engineers increasingly draw inspiration from these biological systems to develop innovative solutions for modern aerospace challenges. The field of bioinspired engineering and biomimicry seeks to translate nature's optimized designs into advanced technologies that enhance aerodynamic efficiency, autonomy, and adaptability in aerial systems. This talk presents Dr. Hassanalani's research on bioinspired aerodynamics and autonomous drone systems, highlighting how natural flight mechanisms observed in birds, insects, and seeds can inform the design of next-generation aerial platforms. His work integrates aerodynamic modeling, experimental validation, and system-level design to improve the performance and efficiency of drones operating in complex environments. Applications of this research include environmental monitoring, infrastructure inspection, underground exploration, wildlife observation, and planetary exploration. By combining principles from biology, aerospace engineering, and robotics, this work aims to advance the development of intelligent aerial systems capable of operating autonomously and efficiently in diverse real-world missions. **Limited to 20 participants per session.**

NEW MEXICO TECH

Presenter(s): Dr. Curtis O'Malley

Assigned Session: 2

Workshop Title: Using Arduino to build a MESA Bot

Description: In this workshop we will walk through the steps of creating a MESA bot. The bot is a robot combat bot for the miner mayhem competition hosted each year at NMT. The bot teaches some basic spatial reasoning, engineering requirements evaluation and selection, as well as basic coding and programming. Educators can tailor the activities of the bot to classroom learning objectives, for example teaching budgeting and finance by attaching cost to construction materials and having students prioritize and work within those constraints or work with ratios and number lines to have the arduino map an input range over to an output range and optimize the bots driving performance. A computer with Arduino IDE will be helpful. **Limited to 20 participants per session.**

NEW MEXICO TECH

Presenter(s): Dr. Curtis O'Malley

Assigned Session: 3

Workshop Title: Building a project around an Arduino Sensor

Description: We will present and walk through a process of identifying sensors for an Arduino project and troubleshooting with a class some common pitfalls. Primarily integrating 2 pieces of code that work independently, Using the computer serial monitor to understand what a piece of hardware and software are doing or "not" doing and how do we make adjustments based on that information. A computer with Arduino IDE usage will be helpful. **Limited to 20 participants per session.**

NM PED COLLEGE AND CAREER READINESS BUREAU (CCRB) AND PATHWAY 2 CAREERS

Presenter(s): Charles Santistevan, Seth Ward, Bret Luboeki

Assigned Session: 3

Description: Join this session for an overview and highlights of the P2C Math resources, curriculum, general use of the platform, and labor market information. Will also review the Career Exploration components of the platform to provide attendees with valuable classroom tools. **Limited to 20 participants per session.**

R4 CREATING

Presenter(s): Sarah Pratt, Dr. Misty Carty

Assigned Session: 4

Workshop Title: 3D Printing 101

Description: Learn how to get started with 3D printing. Participants will learn the basics like what types of filaments to use and when, where to find 3D models to print, and how to create 3D models. You'll learn how to integrate 3D printing into your classroom and club programs to further students' curiosity, creativity, and problem-solving. Get hands-on with 3D pens and see a 3D printer in action. You'll leave with resources and ready-to-implement ideas to help you and your students on their 3D printing journey! **Limited to 20 participants per session.**

SOCIETY OF WOMEN ENGINEERS

Presenter(s): Jan Williams, SWE Members

Assigned Session: 2

Workshop Title: Mothers of Invention: Women Innovators in STEM

Description: Women have been innovating since the dawn of time, increasing safety, security, and the quality of our lives. While they are often not recognized for their inventions, they have made a big impact on society. This session presents a number of female innovators in the 19th and 20th centuries who are seldom recognized but were truly Mothers of Invention. **Limited to 20 participants per session.**

STEM SANTA FE

Presenter(s): Dr. Lina Germann

Assigned Session: 4

Workshop Title: The P³ Blueprint: Designing STEM Programs That Inspire

Description: In this workshop, you'll gain insights into the strategies employed by STEM Santa Fe to create impactful STEM programs that can be effectively implemented in both school and out-of-school settings. STEM Santa Fe strives to engage students in all levels of STEM, math and computer science activities in a social, cooperative, and lively atmosphere. Join STEM Santa Fe Founder & CEO Lina Germann to learn about the three P's to consider in program development within the context of 'Making Friends with the M in STEM'. **Limited to 20 participants per session.**

UNM HSC OF DEI - COMMUNITIES TO CAREERS

Presenter(s): Amy Greene, Stacy Collier, Roberta Zayas

Assigned Session: 4

Workshop Title: Building New Mexico's Diverse Healthcare Workforce: Communities to Careers (C2C)

Description: Behind every successful healthcare student is a supportive network of dedicated educators. In this session you will gain access to tools to help guide your students toward rewarding health careers, learn how our programs support their academic success, and explore ways to partner with our office. To top it off, we will dive into an engaging, hands-on activity. **Limited to 20 participants per session.**

PARTNER OPEN HOUSE ORGANIZATIONS:

ORGANIZATIONS AS OF 7/20/26
AAUW Tech Trek
ASCEND-ADVANCE, Inc.
Asombro Institute for Science Education
Center for Collaborative Education
Future City Competition New Mexico Region
GearSTEM, Inc.
LANL Bradbury Science Museum
R4 Creating
Santa Fe Community College
Society of Women Engineers
STEM Santa Fe
UNM HSC of DEI - Communities to Careers
UNM Math Contest
***ADDITIONAL PRESENTERS EXPECTED