

# NM STATE

## HBCU/MSI JCI FEATURING:

New Mexico State University

Dr. Luis Cifuentes

April 5, 2023

National Aeronautics and  
Space Administration



# NMSU: PREPARING A DIVERSE WORKFORCE



<https://youtu.be/zWVFQoUnH-c>

# NEW MEXICO STATE UNIVERSITY

|   |  |                                     |  |
|---|--|-------------------------------------|--|
| <b>College/<br/>University<br/>Name</b> | New Mexico State University  | <b>Campus<br/>Address:</b>          | MSC 3RES<br>PO Box 30001<br>Las Cruces, NM 88003-8001  |
| <b>Chancellor:</b>                      | Dan Arvizu   | <b>Main Phone<br/>Number:</b>       | 575-646-0111   |
| <b>E-mail<br/>Address:</b>              | <a href="mailto:chancellor.arvizu@nmsu.edu">chancellor.arvizu@nmsu.edu</a>   | <b>Year<br/>Established:</b>        | 1888   |
| <b>Websites:</b>                        | <a href="https://nmsu.edu">https://nmsu.edu</a><br><a href="https://research.nmsu.edu">https://research.nmsu.edu</a><br><a href="https://nmSPACEgrant.com/">https://nmSPACEgrant.com/</a><br><a href="https://nmNASAepscor.com/">https://nmNASAepscor.com/</a> | <b>Educational<br/>Demographic:</b> | <p>Total enrollment: 14,268 students<br/>Undergraduate 11,591, Graduate 2,677<br/>Female 8,277, Male 5,945, Unknown 46<br/>Hispanic 58%, White 26%, Nonresident<br/>5%, Unknown 0.95%, Other minority<br/>10.05%.</p> <p>Five Colleges; top three by enrollment:<br/>Arts &amp; Sciences 4,924 students. Health,<br/>Education, and Social Transformation<br/>3,638. Engineering 2,155</p> <p>Source: NMSU OIA office, Fall 2022 Main Campus</p> |

# NMSU QUICK FACTS

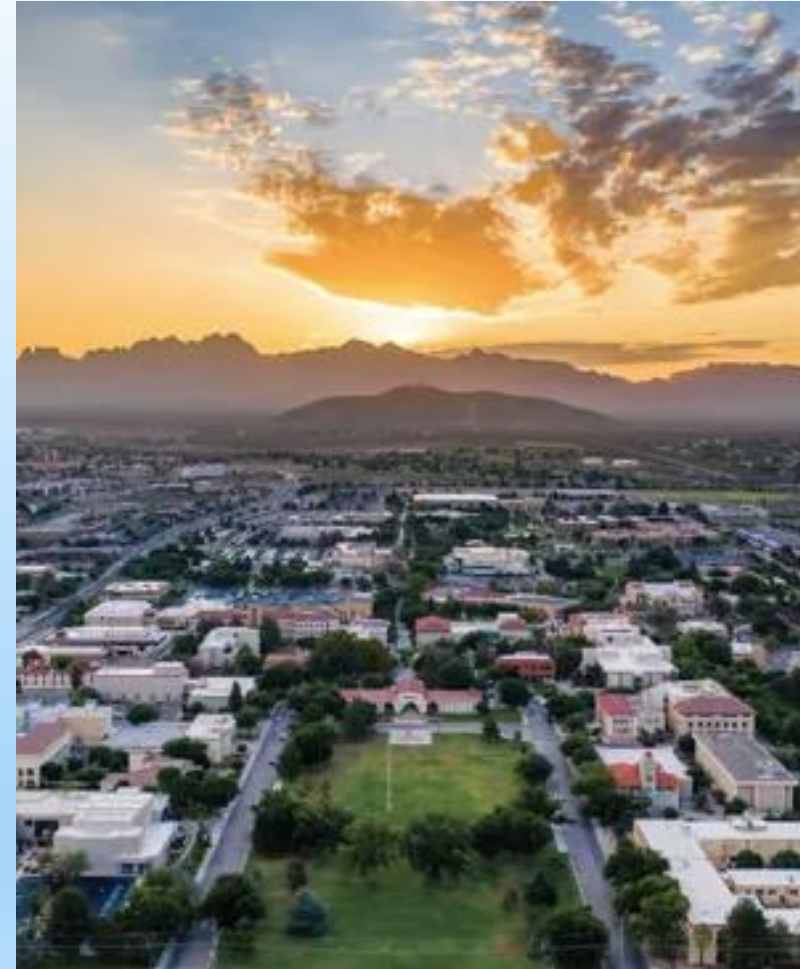
## New Mexico State University

### Quick Facts

**NMSU** is classified by Carnegie as R2 doctoral universities-Highest research activity since 2016

**Recognized** as a top tier university on the U.S. News & World Report Best Colleges rankings

**\$120M** FY22 in research expenditures



# NMSU QUICK FACTS (CONT.)

## New Mexico State University

### Quick Facts

**NMSU** is the only institution in New Mexico with an accredited Aerospace Program

**Recognized** as First-Gen Forward Institution by Center for First-Generation Student Success

**Ranked Third** in research expenditures among High Hispanic Enrollment Institutions without a medical school by NSF Higher Ed. R&D



# NMSU SELECTED PROGRAMS

## College of Arts and Sciences

- Astronomy
- Chemistry
- Computer Science
- Geology
- Mathematical Sciences
- Physics
- Geography and Spatial Sciences



## College of Agricultural, Consumer, & Environmental Sciences

- Plant and Environmental Sciences
- Fish, Wildlife and Conservation Ecology
- Animal and Range Science
- Entomology, Plant Pathology, and Weed Science

## College of Engineering

- Mechanical and Aerospace
- Chemical and Materials Engineering
- Civil Engineering
- Electrical and Computer Engineering
- Engineering Physics
- Engineering Technology and Surveying
- Industrial Engineering



## College of Health, Education, & Social Transformation

- Kinesiology
- Public Health Sciences

## College of Business

- Accounting and Information Systems
- Economics, Applied Statistics, and International Business

# NMSU SELECTED PROGRAMS/LABS

## Physical Science Laboratory (PSL)

- Classified Ready Employee Workforce (CREW)
- Information Sciences and Security Systems
- Telemetry and Missile Systems Division
- Aerospace Division & FAA UAS Center for Excellence



## Research Centers & Academic Labs

- Aggie Innovation Space
- Very Large Scale Integrated (VLSI) circuits Lab
- Autonomous Systems Laboratory (ASL)
- Bioinspired and Biomimetic (Bio2Robotics) Lab
- Robotics, Unmanned Vehicles, Intelligent Systems & CONTROL Lab (RUVICON)
- Engineered Thermo-Active Geomaterials Research Lab
- NanoSat Lab
- High Performance Computing (HPC) cluster
- Interdisciplinary Center of Research Excellence in Design of Intelligent Technologies for Smart Grids (iCREDITS)
- Center for Bio-Mediated and Bio-Inspired Geotechnics (CBBG)
- Engineering Research for Re-Inventing the Nation's Urban Water Infrastructure (ReNUWIt)



## Research Cores Program

- Advanced Chemical Instrumentation including High-resolution mass spectrometry for analysis of atmospheres, exposomes, and materials
- Leading-edge electron and optical microscopy for materials science
- High-Performance Computing
- X-ray diffraction instrumentation for materials science
- In-development: Cloud computing and advanced data science/informatics core
- In-development: Central Collections and Museums core



- Innovation and Entrepreneurship
- Sprint Accelerator Programs (Sprints)
- New Mexico Federal and State Technology Partnership (NM FAST)
- Intellectual Property and Technology Transfer (IP Office)
- NM Clean Energy Resilience and Growth Cluster (NM CERG)
- NM Small Business Assistance (NMSBA)
- The Hunt Center for Entrepreneurship

# NAICS CODES AND CAPABILITIES

## NAICS Code(s):

- 611310
- 541330
- 541512
- 927110
- 54171
- 334220
- 541714
- 541715
- 238910
- 541330
- 611420
- 5182

## Capabilities:

- UG & G degree granting institution
- Engineering services such as mechanical, civil, electrical, chemical.
- Network systems integration design services
- Space research
- R&D in the physical, engr., and life sciences such as electronics, agriculture, environmental, chemistry
- Other computer related services (e.g., cybersecurity, quantum information science)
- Wireless comms (e.g., radio, fiber optics, hybrid)
- Intelligent Manufacturing
- Biomedical Science, Biomedical Informatics and Telehealth



# NMSU: PAST PERFORMANCE & SELECTED RECENT AWARDS

NMSU's DoD awards in the past five years exceeds \$42 million. Similarly, we have garnered in excess of \$17.8 million funding from NASA for various research projects in the same period. Our faculty currently have more than \$37 million active awards from the NSF for research projects in areas such as probing galaxy formation, studying the structural properties of galaxies including the Milky Way, development of smart grids, nanotechnology, Big Data, and machine learning. In addition, our faculty have garnered more than \$16 million in active awards from the HHS (including NIH and NIGMS), and NSF for biomedical research and training (\$5 million) as well as health disparities research.

Next Generation Additive Manufacturing for Space Applications. Funding agency: NASA \$750,000 Borys Drach

Detailed Design of Aerobot for Long-Endurance Mission on Venus. Funding agency: NASA \$100,000 Andreas Gross

University Leadership Initiative Round 6: Mobility-Energy-Coordinated Platform for Infrastructure to support AAM Aircraft Operations. Funding agency: NASA \$6,000,000 Liang Sun

New Mexico Space Grant Consortium: Research Initiation Grants. Funding agency: \$3,279,999 Paulo OEMIG

# NMSU CONTACTS

| Name               | Title  | Phone Number | E-mail Address   |
|--------------------|--|--------------|--|
| Dr. Luis Cifuentes | VP Research, Creativity & Strategic Initiatives      | 575-646-3425 | <a href="mailto:lacifuen@nmsu.edu">lacifuen@nmsu.edu</a> |
| Dr. Lakshmi Reddi  | Dean, College of Engineering                         | 575-646-2573 | <a href="mailto:lnr@nmsu.edu">lnr@nmsu.edu</a>           |
| Dr. Tanner Schaub  | Assistant VP for Research                            | 575-646-5156 | <a href="mailto:tschaub@nmsu.edu">tschaub@nmsu.edu</a>   |
| Mr. Eric Sanchez   | Director, Physical Science Laboratory                | 575-646-9177 | <a href="mailto:esanchez@nmsu.edu">esanchez@nmsu.edu</a> |
| Ms. Kathy Hansen   | Director & CEO, Arrowhead Center                     | 575-646-4220 | <a href="mailto:hansen@nmsu.edu">hansen@nmsu.edu</a>     |
| Dr. Paulo Oemig    | Director, New Mexico Space Grant Consortium          | 575-646-6414 | <a href="mailto:nmsgc@nmsu.edu">nmsgc@nmsu.edu</a>       |
| Ms. Alisha Giron   | Associate VP, Research Administration Services (RAS) | 575-646-1590 | <a href="mailto:ras@nmsu.edu">ras@nmsu.edu</a>           |