



NEW MEXICO TECH
SCIENCE • ENGINEERING • RESEARCH UNIVERSITY



***New Mexico Institute of Mining & Technology
Welcome & University Overview***

For: New Mexico Legislative Education Study Committee

By

President Stephen Wells

August 30, 2021

Covid-19 Status at NMT

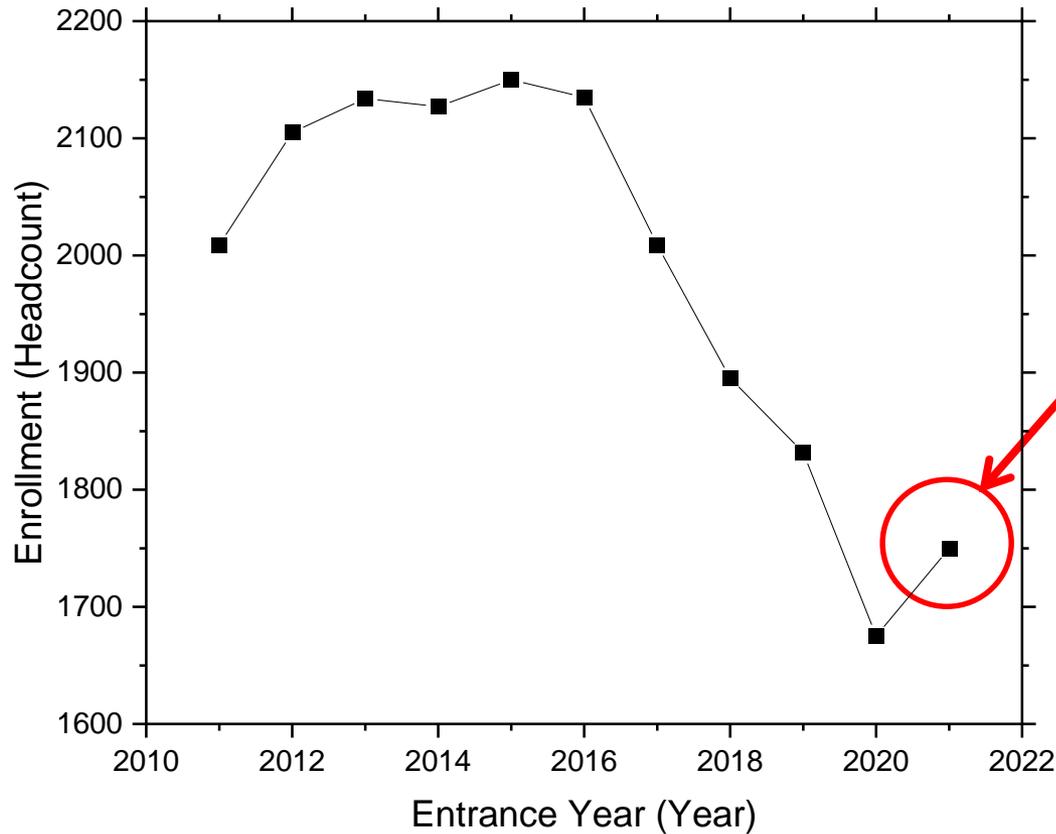
- **NMT Vaccination Rate** (as of August 24, 2021)
 - University wide = 70%
 - All Students = 65%
 - Faculty & Staff = 80%
 - **Interim Policy**
 - Individual Choice of fully vaccinated or weekly Covid-19 Testing
 - **COVID-19 Procedures**
 - NMT Resilient 7.0
 - Total Positive Cases = 87
 - Current Active Cases = 6
 - 5 employees
 - 1 student
 - No spread on campus to date
- CAMPUS POLICY: Masks to be worn inside all buildings, except for “actively” eating or drinking. Not required outside.***

Enrollment Snapshot: 24 August, 2021

<u>Student Category:</u>	<u>1st Day of Classes, 16 Aug, 2021</u>	<u>24 Aug, 2021 Update</u>	<u>Pct. Increase (from Fall 2020)</u>	<u>Census Fall 2020</u>	<u>Census Fall 2019</u>
New undergraduate students headcount	344			337	309
New graduate student headcount	81 (expect 92)			98	61
Total Student Headcount	1,667	1,750	+4.5%	1,675	1,818
Total Student Credit Hours	20,837	21,716	+4.0%	20,890	21,444
Expected Additional Undergrads*	≅ 80			0	0
Expected Additional Graduate*	≅ 40			0	0
Total Headcount* (Expected)	≅ 1,790 (≅ 21,450 cr-hr)			1,675 (20,890 cr-hr)	1,818 (21,444 cr-hr)

* - Based on the increases between date of first classes and census in 2020

NMT enrollment (headcount)



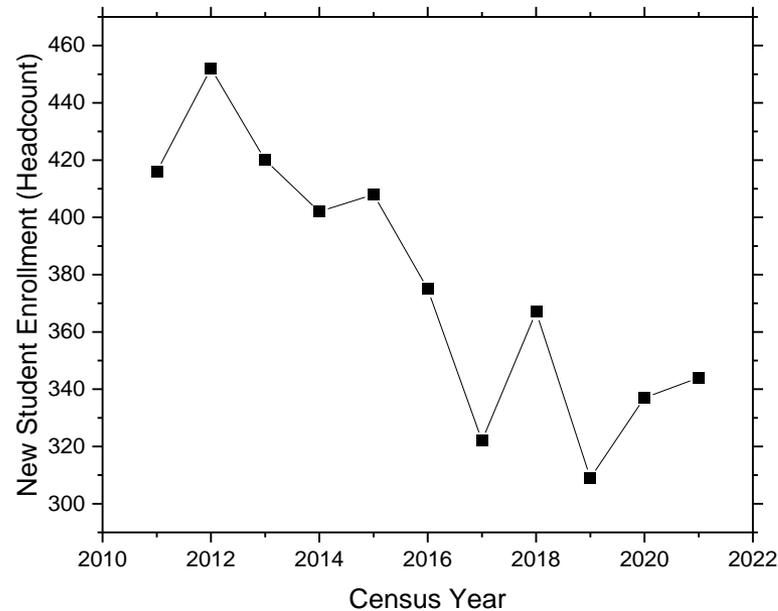
Unofficial:
24 August, 2021

NMT Enrollment Trends

What drove the decline in total enrollment?

Two things:

- (i) Doubling of 4-yr graduation rate from $\cong 17\%$ to $\cong 35\%$,
- (ii) Declining new-student head count.



Implemented new initiatives within NMT recruitment endeavors:

- Need-based scholarships for the first time.
- Enhancing recruitment from 2-year colleges.
- Creating recruitment videos.
- Added more intersession classes to get students back on track.
- Added pilot Calc II recitation section during intersession for students with grade extensions – success with 16 students holding F grade moved to C or higher.
- Added major upgrades in hybrid classrooms, added more computer hybrid labs, upgrades to projectors and software, & created more Dist Ed/hybrid-capable classrooms.
- Added social media recruiting and created an student-driven recruitment video.
- Created an Academic Affairs outreach program to enhance NMT engagement with K-12 education.
- Added a pilot sophomore research program pairing sophomores with research faculty.
- Conducted 5+ zoom meetings with admin and faculty from 2-year colleges in TX, CO and CA.

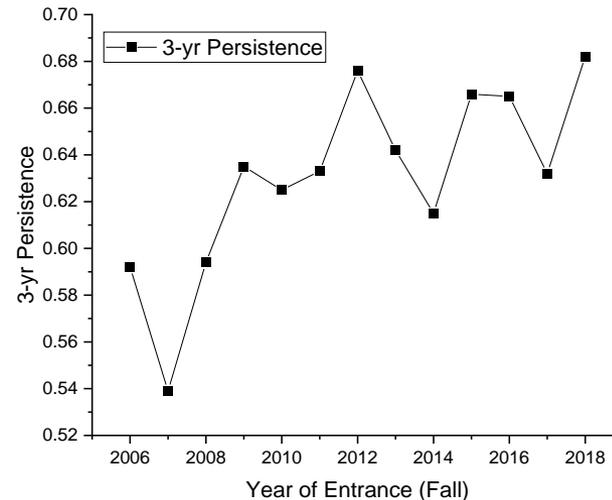
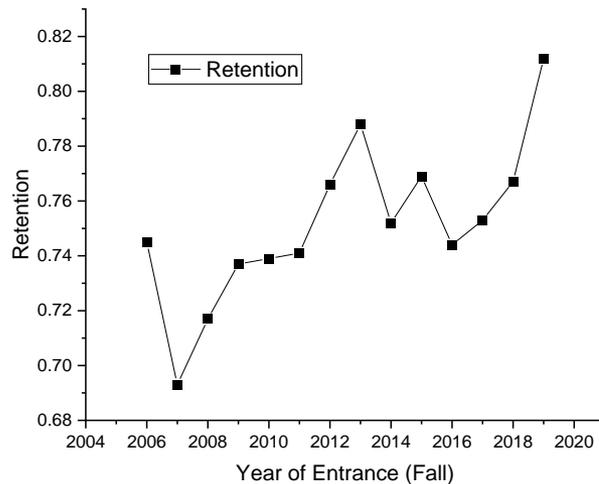
NMT Student Success Trends

Last Fall, 2020, set NMT all-time highs in IPEDS-reported metrics:

- Retention (81.2%)
- Persistence (67.8%),)
- 6-yr Graduation Rate (56.3%)

And all-time highs in terms of other metrics:

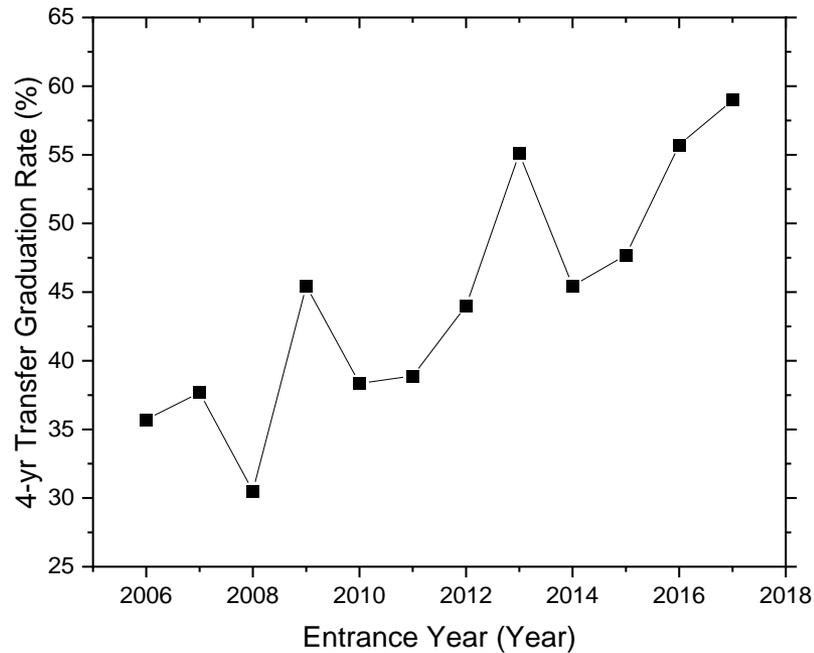
- 4-yr graduation rate (37.2%)
- 5-yr graduation rate (51.5%)
- New Graduate (degree-seeking) Students (98)



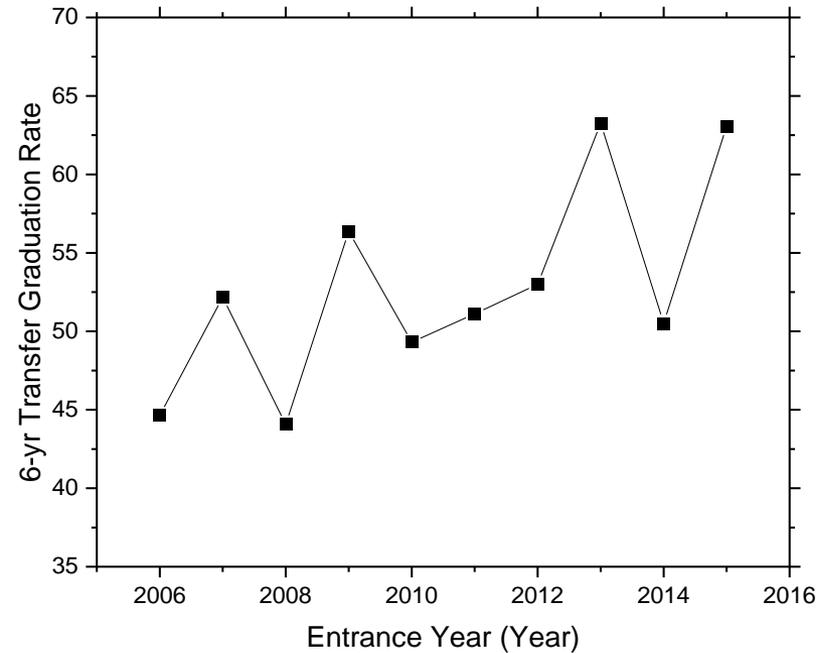
NMT Student Success Trends...

Transfer Graduation Rates

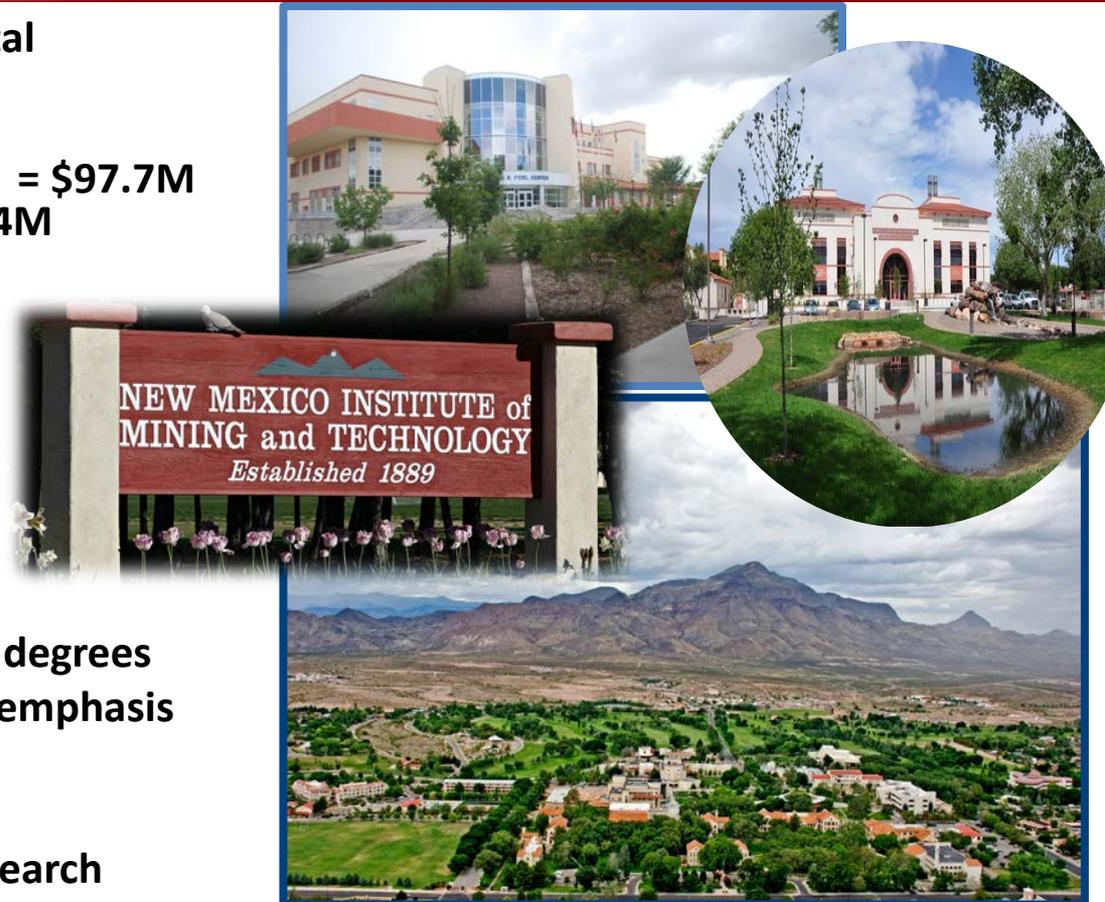
4 year rate



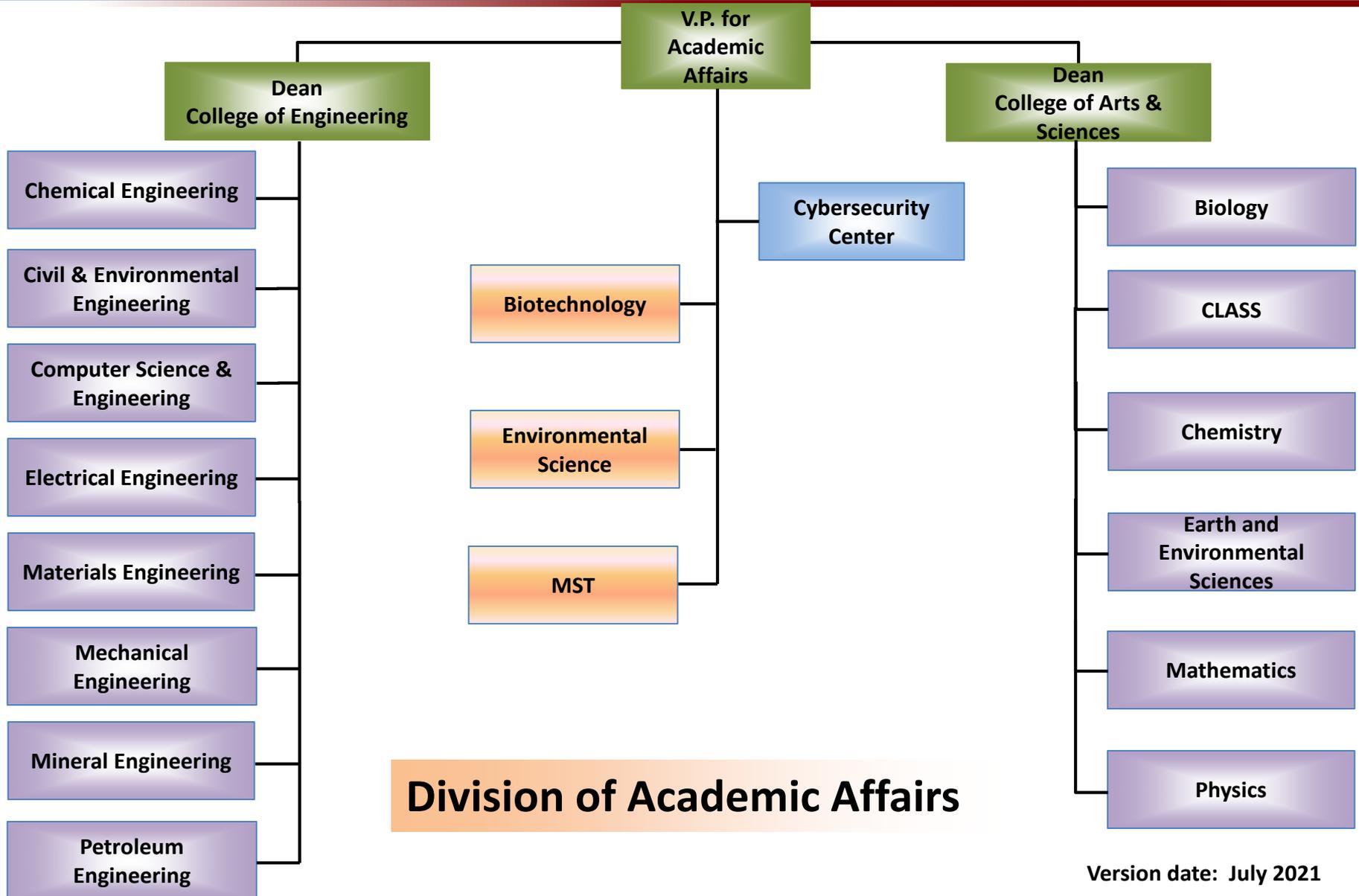
6 year rate



- Main campus = 0.5 mi² (1.3 km²) & total university footprint 40 mi² (100 km²)
- Sponsored Research Awards (AY20-21) = \$97.7M
- NM State Appropriation (FY21) = \$27.4M
- Approximately 1800
- 180 full & part-time faculty
- Degrees:
 - 21 B.S. + General Studies
 - 2 Assoc. Degrees
 - 14 M.S. Degrees +5 other Masters degrees
 - 10 Ph.D. degrees with 11 areas of emphasis
 - 6 Graduate Certificates
- One NM State Agency & One State Research Center:
 - Bureau of Geology
 - Petroleum Recovery Research Center
- 10 Scientific & Engineering Research & Testing Institutions/Centers



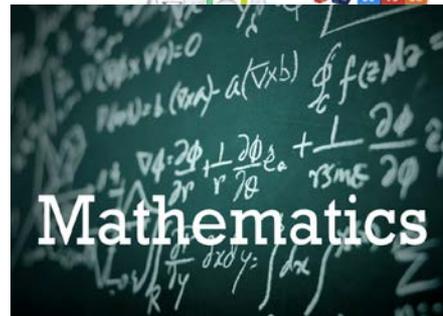
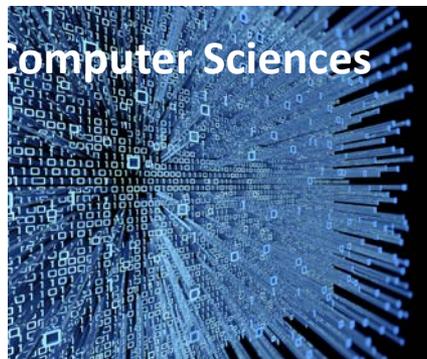
Academic Departments



Division of Academic Affairs

Transdisciplinary Doctoral Degree Programs at New Mexico Tech:

- *Biotechnology – lead department: Biology*
- *Intelligent Energetics – lead department: Mechanical Engineering*
- *Cyber Systems- lead department: Electrical Engineering*
- *Cyber Security – lead department: Computer Science & Engineering*



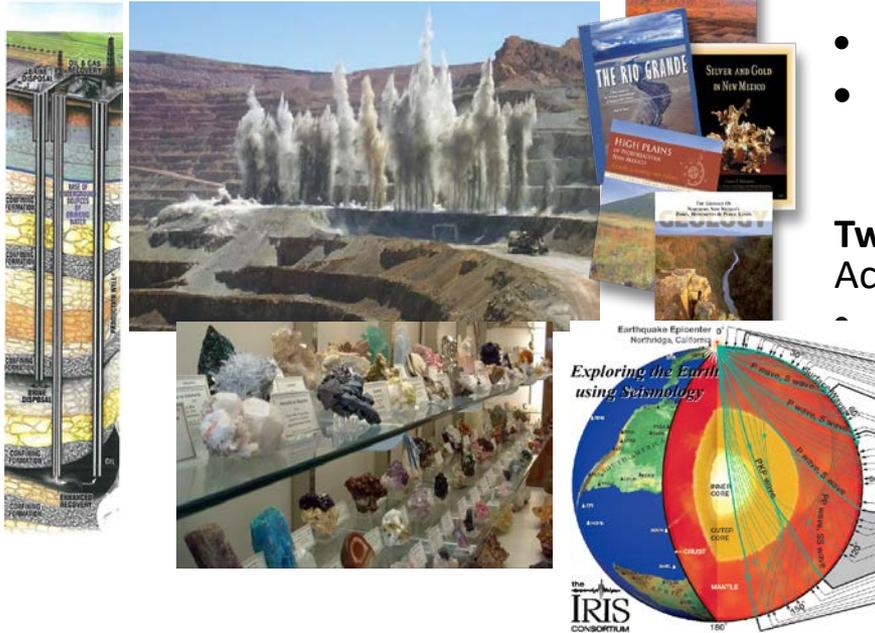
Breadth of Research Endeavors

New Mexico State Agency & Research Unit Established in NM Statutes (reporting to NMT President):

- NM Bureau of Geology & Mineral Resources
- Petroleum Recovery Research Center

NMT Centers & Institutes for Scientific and Engineering Research & Testing (reporting to Vice President of Research, Office of Research):

- Energetic Material Research & Training Center (EMRTC)
- Inc. Research Institutions for Seismology (IRIS) Portable Array Seismic Studies of the Continental Lithosphere (PASSCAL)
- Magdalena Ridge Observatory (MRO)
- Institute for Complex Additive Systems Analysis (ICASA)
- Langmuir Lab
- Geophysical Research Center
- National Cave & Karst Res. Institute
- Air Force Res. Lab Tech Transfer
- Playas Research & Training Center (reporting to NMT President)



Two New NMT Centers (reporting to Vice President of Academic Affairs):

- Cybersecurity Education Center (CEC)



Degrees Awarded & Student Demographics

- By June 2020, NMT awarded:
 - 8,556 bachelor's degrees;
 - 3,301 master's degrees; and
 - 461 Ph.D.'s. in the history of the Institute.
- Class of 2020, 86% of all undergraduates hail from New Mexico.
- International students hail from Bangladesh, Brazil, Cameroon, China, Ghana, India, Iran, Malta, Mexico, Nepal, Norway, the Philippines, Saudi Arabia, Sri Lanka, & Vietnam.



Our Campus and "M" Mountain



New Mexico Tech Today: National Rankings



#5 Top Public College for the Western United States



#21 Public University in the United States. - ["The top 50 U.S. colleges that pay off the most in 2020,"](#)

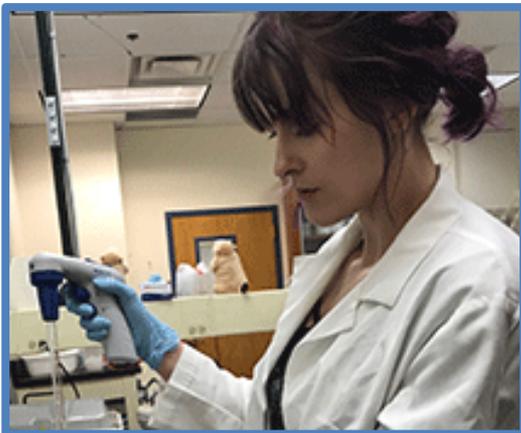
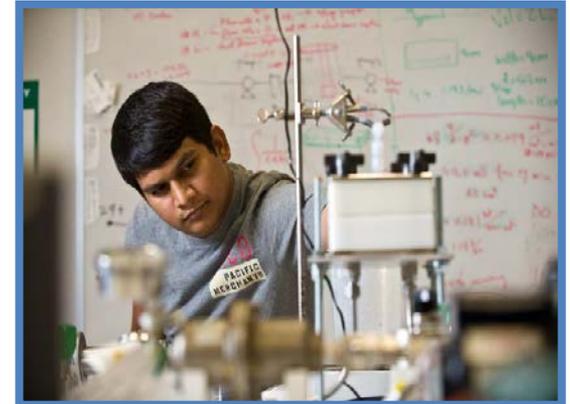


#1 Top Public University in New Mexico

[#4 Best Hispanic-Serving University in America](#)

#49 Top Public University in America

#59 Colleges with the Best Professors



Kiplinger's Top 50 Public Colleges

New Mexico Tech was ranked the **#44 Best Public College** in the September 2019 issue of Kiplinger's Personal Finance.

The top 50 Universities that produce PhD students

NATIONAL SCIENCE FOUNDATION Rankings

1. Cal Tech
2. Harvey Mudd College
3. MIT
4. Reed College
5. Swarthmore College
6. Carleton College
7. University of Chicago
8. Grinnell College
9. Rice University
10. Princeton University
11. Harvard University
12. Bryn Mawr College
13. Haverford College
- 14. New Mexico Tech**
15. Pomona College
16. Williams College
17. Yale University
18. Oberlin College
19. Stanford University
20. Johns Hopkins
21. Kalamazoo College
22. Cornell University
23. Case Western Reserve
24. Washington College
25. Brown University
26. Wesleyan University
27. Carnegie Mellon
28. Macalester College
29. Amherst College
30. Duke University
31. Beloit College
32. Bowdoin College
33. Wellesley College
34. RPI
35. Earlham College
36. Franklin and Marshall
37. Lawrence University
38. University of Rochester
- 39. Univ of Cal-Berkeley**
40. Dartmouth College
41. Occidental College
42. Hendrix College
43. Vassar College
44. Trinity University
- 45. College of William and Mary**
46. St. John College
47. Bates College
48. Whitman College
49. Brandeis University
50. Hampshire College

Blue = Public Universities

Black = Private Universities

NMT is ranked # 1 for the percentage of bachelor's students who later complete a Ph.D. as ranked by the U.S. National Science Foundation

- Creating “**Triple Threat Graduates**” (basketball analogy)
- NMT rooted in a STEM-focused education, where applicable, real world skills have helped our students succeed in careers, champion research, and shape industry. Forbes (2020) described students as “triple threat graduates” if they:
 - *participate in hands-on long-term projects,*
 - *experience academically-linked internships, and*
 - *obtain industry-recognized credentials.*



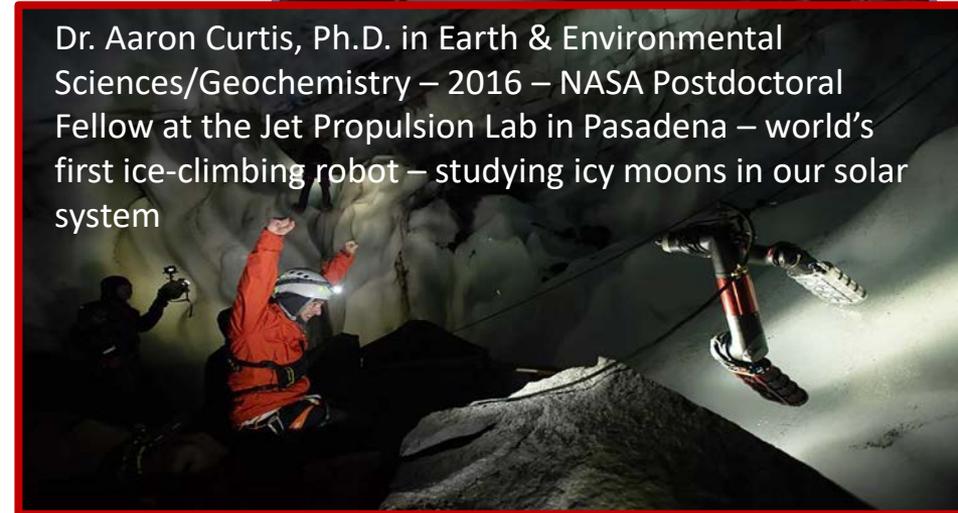
Top Companies for Internships & Employment

- Sandia Corporation
- Los Alamos National Lab
- Freeport-McMoRan
- Intel Corporation
- Chevron Corporation
- Conoco Phillips
- Halliburton Company
- University of New Mexico
- Lockheed Martin
- Raytheon Company
- Schlumberger Limited
- NRAO
- Hewlett-Packard
- Microsoft Corporation
- NM DOT
- IBM
- United States Army
- Air Force Research Labs
- Apple Inc.

Ensuring & Measuring Student Success



Dr. Aaron Curtis, Ph.D. in Earth & Environmental Sciences/Geochemistry – 2016 – NASA Postdoctoral Fellow at the Jet Propulsion Lab in Pasadena – world's first ice-climbing robot – studying icy moons in our solar system



- NMT achieved its highest second-year retention (81.2%) and third-year persistence (68.2%) rates in the university's recent history this past year.
- NMT has seen its five largest graduating classes in school history over the last five years, totaling 1,942 degrees awarded and 387 in just the past year alone.
- In FY20, NMT invested \$3.9 million on student salaries from research funding alone.
- 87% of New Mexico Tech graduates hold secured plans at the time of graduation:
 - 45% Full-time jobs
 - 40% Graduate school
 - 2% Internships, military, etc.
- Tech graduates earn a median salary of \$65,800 upon graduation and \$124,500 after 10 years.

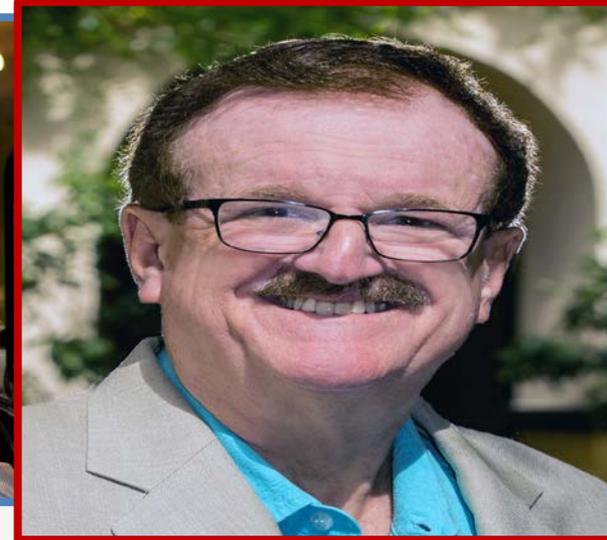
NMT's Future – Enhancing Student Life

- ❑ Creating a energy-efficient campus reducing carbon footprint.
- ❑ Renovations that provide new and modern labs and classrooms.
- ❑ Enhanced WIFI connectivity for NMT's residence halls.
- ❑ Major upgrades to NMT's Gym, completed in the summer 2020.
- ❑ Plans for “Body and Mind Recreational Center/e-Gaming Arena”



Mr. Ed Fries

- Former Vice President of Game Publishing at Microsoft; Co-founder of the Xbox; entrepreneur



Dr. Raul Deju

- Partner in Brightstar Capital Partners, LP; Chair, Texas Water Supply Company

Mr. Igor Gonzales

- President & CEO of Sierra Metals, Peru; Chief Operating Officer for Barrick Gold Corporation, South America



Dr. Corale Brierley

- Vice President, National Academy of Engineering; Principal & Founder of Brierley Consultancy LLC



Value Added to NMT's STEM Degrees

STE²M: An Entrepreneurship University

- Charted a course that enhances our STEM focus in order to nurture the promise and ability of all individuals and to highlight the value of an entrepreneurial spirit.
- **STE²M, or STEM raised to the exponent of entrepreneurialism**
- Rich campus-wide innovation environment to support faculty, staff students for opportunities
 - to directly contribute to new technology companies forming in New Mexico
 - to uniquely drive the innovation ecosystem - in startups, VC firms, and many other roles - in New Mexico and elsewhere
- NMT Office of Innovation Commercialization (OIC)
- NMT University Research Park Corporation (NMTURPC)
 - Created by New Mexico Research Park Act [21-28-1 NMSA 1978]
 - NMTURPC (aka the Research Park or the Park) owns and is responsible for commercialization of intellectual property created at New Mexico Tech
- Examples of current activity
 - Two subsidiaries: Aegia and Socorro Membrane Technologies
 - Two newcos: RD Health Sensing and Traba Targeted Therapeutics
 - Socorro Ventures

- NMT hosts annual Inventors and Entrepreneurs Workshop which is an event for facilitating the progression of ideas from conception to market.
 - Speakers and panelists are coming from Silicon Valley, New York, and around New Mexico.
- **5th Annual Workshop – October 14, 2021; NMT Campus**



The 2017 winner of the Wolves Den was Andrew Miller, a Tech graduate who is now a Ph.D. student at Texas A&M. Miller won \$5,000 and found investors for his new company, Battery Savers

Inspiring & Innovative Faculty:

- Prof. Frank Etscorn
- New Mexico Tech faculty member who invented the nicotine patch in 1986 aiding people with nicotine addiction





NEW MEXICO TECH

Thank You

We are a community, take care of each other!

