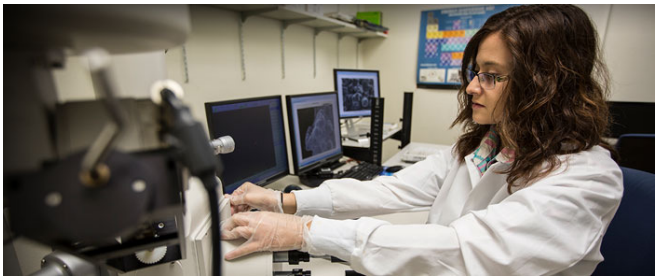
NEW MEXICO TECH

SCIENCE • ENGINEERING • RESEARCH UNIVERSITY



Center for Graduate Studies

https://www.nmt.edu/gradstudies

Doctor of Philosophy

Center for Graduate Studies
graduate@nmt.edu https://www.nmt.edu/gradstudies +1 (575) 835-5513

ENGINEERING
Chemical Engineering (Surface Engineering)
Computer Science
Electrical Engineering (Cyber Electronic Systems)
Materials Engineering
Mechanical Engineering (Intelligent Energetic Systems)
Mineral Engineering
Petroleum Engineering

TRANSDISIPLINARY
Cybersecurity
Biotechnology

SCIENCE
Chemistry
Earth & Environmental Science
- Geobiology; Geochemistry; Geology; Geophysics; Hydrology

Mathematics
- Applied & Industrial Mathematics

Physics
- Astrophysics; Atmospheric Physics; Instrumentation; Mathematical Physics

Master of Science

ENGINEERING
Chemical Engineering (Surface Engineering)
Civil & Environmental Engineering
Computer Science
Electrical Engineering
Engineering Management
Materials Engineering
Mechanical Engineering
Mineral Engineering
Petroleum Engineering

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TRANSDISIPLINARY
Cybersecurity
Public Engagement in Science, Design, and Communication

SCIENCE
Biology
Chemistry
Geochemistry
Geology
Geophysics
Hydrology
Mathematics
- Operational Research & statistics; Industrial Mathematics; Analysis

Physics
- Instrumentation

Professional degrees have distance education option

Professional Masters

SCIENCE
Hydrology

TRANSDISIPLINARY
Cybersecurity

Master of Engineering

ENGINEERING
Chemical Engineering (Surface Engineering)
Materials Engineering
Mechanical Engineering

Master of Engineering Management

Master of Science for Teachers

Graduate Certificate

EDUCATION
Elementary Alternative Licensure
Secondary Alternative Licensure

COMMUNICATION
Scientific & Professional Communication

SCIENCE
Hydrology

ENGINEERING
Cybersecurity
Electrical Engineering
Explosives Engineering
Technology Leadership

A Glimpse at NMT's Research Centers

Cybersecurity

New Mexico Tech has developed two closely-related cybersecurity centers; one focused on cybersecurity education and research, and the other focused on economic development for New Mexico.

EMRTC

The Energetic Materials Research and Testing Center (EMRTC), a major research and training division of New Mexico Tech, is internationally recognized and has over 60 years experience in explosives research and testing. EMRTC specializes in the research, development, testing, and analysis of energetic materials for both corporate and government clients.

ICASA

The Institute for Complex Additive Systems Analysis (ICASA) is a cooperative alliance among academia, industry, and government that New Mexico Tech administers under a contract with the Department of Defense, along with the support of the state of New Mexico. This alliance is dedicated to studying the behavior, vulnerabilities, and predictability of complex systems.

LANGMUIR

The Langmuir Laboratory, built by New Mexico Tech in 1963, is located at an elevation of 3,240m (10,630ft) in the Magdalena Mountains, 27km (17 air miles) southwest of the Socorro campus. The laboratory was named in honor of Dr. Irving Langmuir, Nobel Prize winner, who participated in numerous experiments at New Mexico Tech related to cloud physics after the discovery of cloud seeding in 1946.

MRO

The Magdalena Ridge Observatory (MRO) is located on 1,000 acres at an altitude of 10,600 feet in the Magdalena Mountains of the Cibola National Forest in Socorro County, New Mexico. This multi-use research and educational observatory is built and operated by New Mexico Tech.

PRRC

The Petroleum Recovery Research Center (PRRC), being the only research center of its kind in New Mexico, is a scientific research organization dedicated to solving problems related to the oil and gas industry. The PRRC's mission is to develop, through theoretical and practical research, improved oil recovery methods to increase oil and natural gas recovery from New Mexico's and the nation's oil and gas reservoirs and to transfer new technology to the industry and to local independents. In recent years the PRRC has been a leader in carbon sequestration research.

These are only a sample of research centers at NMT. For a complete list please visit https://www.nmt.edu/research

Additionally, New Mexico is home to Kirtland Air Force Research Lab, Los Alamos Research Lab and Sandia National Labs with which NMT researchers have strong collaborations.



NMT fosters an ideal learning environment, innovative research opportunities, and a strong sense of community

- Talysa Viera
Ph.D. Biotechnology Program - 2021 Graduate
Chemistry Department

25 Master & 13 PhD Programs in Science, Engineering & Mathematics

Approximately **$70M** Research & Sponsored Activities

400+ Graduate Students

Making a Difference for **125+** Years

12 Scientific & Research Institutions




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Select Graduate Courses Offered by Distance (Fall 2021)

Students, who wish to take courses either without pursuing a graduate degree or to take courses before applying for a degree, may apply to be special graduate students or pre-degree students. Below is a list of courses offered via distance during the Fall 2021 semester.

Note: As a special student there are limitations on how many credits and which courses may apply towards your degree. Please contact us for more information.

Scan/Click

Chemical Engineering

CH E 552	Surface Characterization Techniques
CH E 568	Surfaces, Interfaces, and Colloids
CH E 589	Advanced Mathematical Modeling

Chemistry

CHEM 522	Environmental Chemistry
CHEM 526	Chemical Spectroscopy
CHEM 529	Graduate Seminar
CHEM 561	Adv Topics in Biochemistry

Computer Science and Engineering

CSE 541	Advanced Cryptography
CSE 561	Foundtns of Informatn Security
CSE 567	Soft Computing
CSE 585	Graduate Seminar
CSE 589	Predictive Data Analysis
CSE 589	Blockchain and Cryptocurrencies
CSE 589	Adv. Sensor Networks Applcations
CSE 589	Data Science
CSE 589	Intro to Machine Learning
CSE 589	Predictive Data Analytics

Earth & Environmental Science

GEOB 589	Geomicrobiology
GEOL 534	Intro to Remote Sensing
GEOL 554	Tectonics

Hydrology

HYD 507	Hydrogeochemistry
HYD 510	Quantitive Methods in Hydrology
HYD 589	GeoJustice

Transdisciplinary Cybersecurity

CYBS 502	Cybersecurity Ethics and Law
CYBS 589	Formal Security Policy Models

Materials Engineering

MTLS 531	Fundamentals in Manufacturing
MTLS 534	Phase Equilibria Materials Systems
MTLS 564	Nano-Optics
MTLS 566	Interfacial Phenomena
MTLS 580	Dislocation Theory
MTLS 589	Surface Characterization Techniques

Mathematics

MATH 531	Topics in ODEs
MATH 538	Wave Phenomena
MATH 586	Spatial Variability & Geostats

Mechanical Engineering

MENG 504	Advanced Mechanics of Material
MENG 513	Impact Dynamics
MENG 517	Advanced Finite Element Method
MENG 545	Introduction to Explosives Engineering
MENG 546	Detonation Theory
MENG 552	Explosives Technology & Apps
MENG 554	Embedded Control Systems
MENG 558	Non-Newtonian Fluid Mechanics
MENG 575	Advanced Engineering Math
MENG 579	Advanced Heat Transfer
MENG 585	Graduate-Faculty Seminar
MENG 589	Control System Design
MENG 589	Aerodynamics

Engineering Management

EMGT 501	Engineering Management
EMGT 502	Financial Management
EMGT 506	Managing HR in Tech Organization

Biotechnology

BIOT 589	Nano-Optics and Bioimaging
BIOT 589	Geomicrobiology
BIOT 589	Adv Topics in Biochemistry

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Graduate Programs

How to apply

https://www.nmt.edu/gradstudies/admissions.php

Contact Us

Email: graduate.dept@nmt.edu

Telephone: +1 575 835 5720