

About The Guide

Degrees in Science, Technology, Engineering and Mathematics (STEM)

This *New Mexico College Career Guide* reflects eight (8) STEM fields of study *selected* from the National Science Foundation (NSF) Classification of Instructional Programs.

New Mexico Higher Education Research Institutions

This *Guide* aligns the eight (8) STEM fields of study to the state's only three (3) higher education *research* institutions as identified by the New Mexico Higher Education Department:

- New Mexico Institute of Mining and Technology (NM Tech)-Socorro, New Mexico
- New Mexico State University (NMSU)-Las Cruces, New Mexico
- University of New Mexico (UNM)-Albuquerque, New Mexico

By going to the websites listed under each institution's degree programs, prospective students will find more information about the degree program along with course requirements. **Institution's contact information is listed in the back of this guide.**

College Degree Levels: B.A., B.S., M.S., and Ph.D.

This guide also provides the degree levels at each institution that students can pursue within their STEM field of study:

Undergraduate Degrees

- Bachelor of Arts (B.A.) – students receive a B.A. in their field of study, e.g., Bachelor of Arts in Biology
- Bachelor of Science (B.S.) – students receive a B.S. in their field of study, e.g., Bachelor of Science in Biology

Graduate Degrees (an undergraduate degree is required for admission into a graduate program)

- Master of Science (M.S.) – students receive a M.S. in their field of study, e.g., Master of Science in Biology
- Doctor of Philosophy (Ph.D.) – students receive a Ph.D. in their field of study, e.g., Doctor of Philosophy in Biology

Approximate Timeframe to Complete an Undergraduate Degree and Graduate Degrees (contact individual institution programs as timeframe varies per institution)			
<u>Undergraduate Degree</u> Bachelor of Science	Combined B.S. & M.S. Coursework for Master of Science	<u>Graduate Degree</u> Master of Science	<u>Graduate Degree</u> Doctor of Philosophy (Ph.D.)
Approximately 4 to 5 years to complete when attending full-time each semester.	Some programs provide students an option to complete a MS degree in five- years through combined BS and MS coursework.	Approximately 2 years to complete when attending full-time each semester.	Coursework completion can take approximately 3 to 4 years <i>plus</i> timeframe of completing dissertation (research).

New Mexico Resources for College Information, Financial Aid and STEM Careers

- New Mexico Higher Education Department: <http://www.hed.state.nm.us/students/>
- Free Application for Federal Student Aid for College: <http://fafsa.gov/> *Pell Grant*
- New Mexico Lottery Scholarship (Bridge and Lottery Scholarship)
<http://www.hed.state.nm.us/students/bridge-scholarship.aspx> *Bridge Scholarship*
<http://www.hed.state.nm.us/students/lotteryscholarship.aspx> *Lottery Scholarship*

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BIOLOGY DEGREES

NMSU, NM Tech and UNM



Biology: Students majoring in Biology will have an education for biomedical and biotechnological careers and molecular biology research to serve the university and the scientific community.

B.A., B.S., M.S., Ph.D. - Biology, Biochemistry and Biomedical Engineering

Careers, Internships and Experience: Students majoring in Biology can expect to work in environmental assessment, drug development, medicine and forensic genotyping.

NMSU Students will learn modern biological concepts on relevance to humans and their relationship to the environment.

Undergraduate Degree: B.S. Biology with concentrations in:

- Conservation Ecology
- Genetics or Microbiology

Graduate Degrees: M.S. in Biology and Ph.D. in Biology

Courses: <http://nmsu.smartcatalogiq.com/en/2015-2016/Undergraduate-Catalog/College-of-Arts-and-Sciences/Biology/DEGREE-Bachelor-of-Arts/MAJOR-Biology>

NMSU Department Link: <http://bio.nmsu.edu/>

NM Tech Students studying Biology have an option for a five year B.S. and M.S. degree program in Biology.

Undergraduate Degree: B.S. in Biology

Graduate Degree: M.S. in Biology

Courses: http://www.nmt.edu/images/stories/registrar/pdfs/2013-2014_PROGRAM_and_COURSE_Catalog_FINAL.pdf#page=13

NM Tech Department Link: <http://infohost.nmt.edu/~biology/biologyfrontpage.html>

UNM Students must complete a minimum of 26 hours and the requirements for the degree.

Undergraduate Degrees: B.A. and B.S. in Biology with concentrations in:

- Biotechnology
- Ecology, Evolution and Organismal Biology
- Conservation Biology

Graduate Degrees: M.S. in Biology and Ph.D. in Biology

Courses: <http://catalog.unm.edu/catalogs/2015-2016/colleges/arts-sciences/biology/undergraduate-program.html>

UNM Department Link: <https://biology.unm.edu/>

CHEMISTRY DEGREES

NMSU, NM Tech and UNM



Chemistry: Students majoring in Chemistry have an option to major in biochemistry. Students can find employment in chemical and pharmaceutical industries.

B.A., B.S. M.S. Ph.D. Chemistry and Chemical Engineering.

Careers, Internships and Experience: Students can work in federal labs and other research institutions. Students majoring in chemistry are prepared for medical, dental, veterinary and pharmacy school. Career opportunities include industrial process through scientific research in academic and government labs.

NMSU Students perform research and have many opportunities in the classroom and labs.

Undergraduate Degrees: B.S Chemistry and B.S. Biochemistry

Graduate Degree: M.S. in Chemistry

NMSU Courses: <http://chemistry.nmsu.edu/courses/>

NMSU Department Link: <http://chemistry.nmsu.edu/>

NM Tech Students will take labs with a focus on environmental and biomedical topics. Students can also participate in department research.

Undergraduate Degree: B.S. in Chemistry

Graduate Degrees: M.S. in Biochemistry and Chemistry, Ph.D. in Chemistry

Courses: http://www.nmt.edu/images/stories/registrar/2014-2015_PROGRAM_and_COURSE_Catalog_FINAL.pdf

NM Tech Department Link: <http://infohost.nmt.edu/~chem/>

UNM Students taking Chemistry are learning modern chemistry, organic, inorganic, biochemistry and physical chemistry.

Undergraduate Degrees: B.A. and B.S. in Chemistry and Chemical Biology

Graduate Degrees: M.S. in Chemistry and Ph.D. in Chemistry

Courses: <http://chemistry.unm.edu/undergraduate%20programs/courses/index.html>

UNM Department Link: <http://chemistry.unm.edu/>

BIOCHEMISTRY DEGREES

NMSU, NM Tech and UNM



Biochemistry is the discipline that studies humans and their chemical relationship with the environment. Biochemistry addresses: How is food converted into energy or body substance? How is genetic inheritance translated into phenotypically expressed properties? How do enzymes, the biological catalysts, differ in power and specificity and controllability from other catalysts? **B.A., B.S., M.S., Ph.D.**

Careers, Internships and Experience: Students majoring in biochemistry or molecular biology are prepared for careers in the fields of medicine, dentistry, clinical nutrition, public health, veterinary medicine, pharmaceutical research on designing and evaluating new drugs, recombinant DNA research including Biomedical engineering regarding the designing of materials and instruments for therapy and diagnosis.

NMSU Students are provided preparation for professional studies in medicine, dentistry, veterinary science, optometry, pharmacology, pharmacy, and law.

Undergraduate Degree: B.S. in Biochemistry

Courses: <http://chemistry.nmsu.edu/courses/>

UNM Students majoring in biochemistry learn about the biochemical basis of disease through individual and multidisciplinary research; medical, graduate, undergraduate and continuing education; and the training of clinical and basic research scientists.

Undergraduate Degree: B.A. and B.S. in Biochemistry or Molecular Biology

Graduate Degrees: M.S. and Ph.D. in Biomedical Science

Courses: <http://bmb.unm.edu/education/undergraduate/curriculum.html>

COMPUTER SCIENCE DEGREES

NMSU, NM Tech and UNM



Computer Science: Students majoring in Computer Science learn about science computation, design and programming of computer systems. Students will know more about digital entertainment and satellite development. **B.S. M.S. Ph.D.**

Careers, Internships and Experience: Students majoring in Computer Science attend internships at Idaho National Labs, Texas State and Nuclear Science and Security Consortium Internships.

NMSU Students are prepared for graduate studies in computer science and employment positions.

Undergraduate Degrees: B.S. in Computer Science

Graduate Degrees: M.S. in Computer Science and Ph.D. in Computer Science

- Dual B.S. and M.S in Computer Science
- M.S. in Bioinformatics and Ph.D. in Computer Science.

Courses: <http://nmsu.smartcatalogiq.com/en/2015-2016/Undergraduate-Catalog/College-of-Arts-and-Sciences/Computer-Science/DEGREE-Bachelor-of-Arts/MAJOR-Computer-Science>

NMSU Department Link: <http://www.cs.nmsu.edu/wp13/>

NM Tech Students will need to take courses in theory and application.

Undergraduate Degrees: B.S. in Computer Science and B.S. in Information Technology

Graduate Degrees: M.S. and Ph.D. in Computer Science.

Courses: <https://cs.nmt.edu/academics/course-catalog/cse/>

NM Tech Department Link: <https://cs.nmt.edu/>

UNM Students majoring in computer science will have foundations for future careers and problem solving. Students will have an understanding of systems, languages and tools.

Undergraduate Degree: B.S. in Computer Science

Graduate Degrees: M.S. in Computer Science and Ph.D. in Computer Science

- Dual B.S. and M.S. in Computer Science
- Dual B.S. and M.S. in Computer Engineering

Courses: <http://www.cs.unm.edu/programs-and-degrees/bachelors/core-requirements.html>

UNM Department Link: <http://www.cs.unm.edu/>

ENGINEERING DEGREES

Aerospace Engineering is only offered at NMSU

Students majoring in aerospace engineering design, test and develop aerodynamic vehicles and related systems.



Careers, Internships and Experience: Aerospace Engineering graduates will be leaders in research, design, construction and aircraft analysis. People with an aerospace degree can work on earth or in space or with aircraft or spacecraft.

Aerospace Engineering: Coursework includes basic engineering concepts, communication skills and specialized lab procedures, but students will learn more about primary areas of aerospace engineering.

Aerospace Engineering degrees: B.S. in Aerospace Engineering

Courses: <http://nmsu.smartcatalogiq.com/en/2015-2016/Undergraduate-Catalog/College-of-Engineering/Mechanical-Engineering-and-Aerospace-Engineering/DEGREE-Bachelor-of-Science-in-Aerospace-Engineering/MAJOR-Aerospace-Engineering>

NMSU Department Link: <http://mae.nmsu.edu/>

Chemical Engineering Students majoring in chemical engineering are prepared for professional careers. Students also participate in research opportunities.

B.S. M.S. Ph.D. Chemical Engineering

Careers, Internships and Experience: Students learn how to communicate more effectively through teaching, curriculum and research opportunities and summer jobs. Students also learn Chemical Engineering principles.

NMSU Students have many options to choose from with a chemical and materials engineering degree. Students get hands on lab and will solve differential equations spread throughout several semesters.

Undergraduate Degrees: B.S. in Chemical Engineering

Graduate Degrees: M.S. in Chemical Engineering and Ph.D. in Chemical Engineering

Courses: <http://nmsu.smartcatalogiq.com/en/2015-2016/Undergraduate-Catalog/College-of-Engineering/Chemical-and-Materials-Engineering/DEGREE-Bachelor-of-Science-in-Chemical-Engineering/MAJOR-Chemical-Engineering>

NMSU Department Link: <http://chme.nmsu.edu/>

NM Tech Students participate in research projects and internships while working for degrees.

Undergraduate Degree: B.S. in Chemical Engineering

Courses: <http://infohost.nmt.edu/~cheme/academics.html> and http://www.nmt.edu/images/stories/registrar/pdfs/2013-2014_PROGRAM_and_COURSE_Catalog_FINAL.pdf#page=129

NM Tech Department Link: <http://infohost.nmt.edu/~cheme/>

UNM Students must fulfill the core curriculum requirements and choose one of the five concentrations: chemical process engineering, bioengineering, materials processing, semiconductor manufacturing and environmental engineering.

Undergraduate Degree: B.S. in Chemical Engineering

Graduate Degrees: M.S. in Chemical Engineering and Ph.D. in Engineering with a Chemical Engineering concentration

Courses: <http://cbe.unm.edu/students/undergraduate/cbe-curriculum.pdf>

UNM Department Link: <http://cbe.unm.edu/>

Civil Engineering Students majoring in Civil engineering will work on several projects such as airports, bridges, buildings, dams and water ways.

B.S. M.S. Ph.D. Civil Engineering

Careers, Internships and Experience: Conduct experiments, analyze and interpret data. Students will communicate more effectively and apply their knowledge of math, science and engineering.

NMSU Students in Civil Engineering will solve problems in their courses. After graduation, students can create structures such as bridges, dams and roads.

Undergraduate Degree: B.S. in Civil Engineering

Courses: <http://nmsu.smartcatalogiq.com/en/2015-2016/Undergraduate-Catalog/College-of-Engineering/Civil-Engineering/DEGREE-Bachelor-of-Science-in-Civil-Engineering/MAJOR-Civil-Engineering>

NMSU Department Link: <http://ce.nmsu.edu/>

NM Tech Students can take a core of civil engineering courses and specialize in water resources or structural engineering. Students can also take courses in Chemistry, Physics and Math. Students are taught fundamentals of engineering design and how to use computer software.

Undergraduate Degree: B.S. in Civil Engineering

Courses: <http://infohost.nmt.edu/~enve/Media/PDF/CEEDegreeREQ2015.pdf>

NM Tech Department Link: <http://infohost.nmt.edu/~enve/>

UNM Students need to take 129 credits of coursework which includes Physical Sciences, math and engineering, along with specialized civil engineering topics. During senior year, students will work on engineering projects and technical writing courses.

Undergraduate Degrees: B.S. Civil Engineering, B.S. in Construction Engineering and B.S. in Construction Management

Graduate Degrees: M.S. Civil Engineering and Ph.D. in Engineering with a concentration in Civil Engineering

Courses: <http://civil.unm.edu/programs-and-degrees/courses.html>

UNM Department Link: <http://civil.unm.edu/>

Electrical Engineering Students majoring in electrical engineering are prepared for challenging careers to study electronics and solve real world problems to improve lifestyles and discover new technologies. **B.S. M.S. Ph.D. Electrical Engineering**

Careers, Internships and Experience: Students can participate in summer internships and semester co-op programs prepared for the workforce. Students majoring in electrical engineering can work in private industry, government, service and research labs within the United States and other countries. Students can also do summer internships for job placement.

NMSU Students can participate in hands on curriculum and apply fundamentals of math and physics to computer engineering and circuits. Students also have many electives to choose from.

Undergraduate Degree: B.S. in Electrical Engineering

Graduate Degree: M.S. in Electrical Engineering

Courses: <http://nmsu.smartcatalogiq.com/en/2015-2016/Undergraduate-Catalog/College-of-Engineering/Electrical-and-Computer-Engineering/DEGREE-Bachelor-of-Science-in-Electrical-Engineering/MAJOR-Electrical-Engineering>

NMSU Department Link: <http://ece.nmsu.edu/>

NM Tech Students will need to take a total of 25 or 26 credits to complete their degree.

Undergraduate Degree: B.S. in Electrical Engineering

Graduate Degrees: M.S. in Electrical Engineering and Ph.D. in Engineering with a concentration in Electrical Engineering.

Courses: http://www.nmt.edu/images/stories/registrar/2014-2015_PROGRAM_and_COURSE_Catalog_FINAL.pdf

NM Tech Department Link: <http://www.ee.nmt.edu/>

UNM Students can use skills in industry and nonprofit organizations and work in teams.

Undergraduate Degree: B.S. in Electrical Engineering

Graduate Degrees: M.S. in Electrical Engineering and Ph.D. in Electrical Engineering

Courses: <http://www.ece.unm.edu/courses/undergradcourses.htm>

UNM Department Link: <http://www.ece.unm.edu/>

Environmental Engineering is only offered at NM Tech Students majoring in environmental engineering solve current environmental engineering problems. **B.S. M.S. Environmental Engineering**

Careers, Internships and Experience: Environmental engineers work on projects with landfill design.

Environmental Engineering: Students take courses in environmental law, water and waste water, soil mechanics and air pollution control.

Undergraduate Degree: B.S. Environmental Engineering

Graduate Degree: M.S. in Environmental Engineering

Courses: http://www.nmt.edu/images/stories/registrar/pdfs/2013-2014_PROGRAM_and_COURSE_Catalog_FINAL.pdf#page=148

NM Tech Department Link: <http://infohost.nmt.edu/~enve/>

Industrial Engineering only offered at NMSU Students majoring in Industrial Engineering design, develop, install and improve integrated systems of people, equipment, information and financial resources, software and materials. The tools they use are varied and broad. **B.S. Industrial Engineering**

Careers, Internships and Experience: Students can apply to various industrial engineering techniques to solve real world problems in process design and improvement. Enroll in a graduate program and gain experience.

Undergraduate Degree: B.S. Industrial Engineering

Graduate Degrees: M.S. and Ph.D. in Industrial Engineering with an Industrial Engineering concentration

Courses: <http://nmsu.smartcatalogiq.com/en/2015-2016/Undergraduate-Catalog/College-of-Engineering/Industrial-Engineering/DEGREE-Bachelor-of-Science-in-Industrial-Engineering/MAJOR-Industrial-Engineering>.

NMSU Department Link: <http://ie.nmsu.edu/>

Materials Engineering is only offered at NM Tech Students majoring in materials engineering will use chemistry, biology, physics, electronics and aesthetics towards the improvement of materials in the real world. Students apply their knowledge to how material engineering relates to contact lenses, artificial joints and prosthetics. **B.S. M.S. Ph.D. Materials Engineering**

Careers, Internships and Experience: Students earning degrees in materials engineering will work with personal electronics, sports equipment and also experiment with spacecraft.

Materials Engineering: Students are exposed to materials science in sophomore year and continues through senior year. Students will also do experimental research.

Undergraduate Degree: B.S. Materials Engineering

Graduate Degree: M.S. Materials Engineering and Ph.D. in Materials Engineering

Courses: http://www.nmt.edu/images/stories/registrar/2014-2015_PROGRAM_and_COURSE_Catalog_FINAL.pdf

NM Tech Department Link: <http://infohost.nmt.edu/~mtls/>

Mechanical Engineering Students majoring in mechanical engineering look into many concentrations such as mechanics, energy, heat, design manufacturing and research.

B.S. M.S. Ph.D. Mechanical Engineering

Careers, Internships and Experience: After graduation, students can plan, design devices and machines for energy conversion, robotics and automation. Students will be experienced in creative design and applied research.

NMSU Students will take courses in mechanisms and machines.

Undergraduate B.S. in Mechanical Engineering

Graduate Degrees: M.S. in Mechanical Engineering and Ph.D. in Mechanical Engineering.

Courses: <http://nmsu.smartcatalogiq.com/en/2015-2016/Undergraduate-Catalog/College-of-Engineering/Mechanical-Engineering-and-Aerospace-Engineering/DEGREE-Bachelor-of-Science-in-Mechanical-Engineering/MAJOR-Mechanical-Engineering>

NMSU Department Link: <http://mae.nmsu.edu/>

NM Tech Students will have hands on laboratory experience in fluid and thermal sciences, mechanics of materials, vibrations and controls. Juniors and seniors work on design projects for two years. Projects include aerospace and aircraft design.

Undergraduate Degree: B.S. in Mechanical Engineering

Graduate Degree: M.S. in Mechanical Engineering

Courses: <http://infohost.nmt.edu/~mecheng/html/undergraduate/courses.html>

NM Tech Department Link: <http://infohost.nmt.edu/~mecheng/>

UNM Students complete technical courses in the first year. At the end of four years, students will present material or product for a senior project.

Undergraduate Degree: B.S. in Mechanical Engineering

Graduate Degrees: M.S. in Mechanical Engineering and Ph.D. in Mechanical Engineering

Courses: <http://catalog.unm.edu/catalogs/2014-2015/colleges/engineering/mechanical/undergraduate-program.html>

UNM Department Link: <https://me.unm.edu/>

Mineral Engineering only offered at NM Tech Students majoring in mineral engineering have a strong foundation in Science, Chemistry, Physics, Geology and Engineering Science. This includes basic engineering principles and fundamentals in applied engineering. Students learn more about the operation and design of surface and underground mines.

B.S. M.S. Mineral Engineering

Careers, Internships and Experience: During senior year, students take on a design project which includes engineering principles and design in three areas. Students also learn more about planning of mining projects and geotechnical construction projects.

NM Tech Mineral Engineering: Students take courses explored in underground mining, ventilation, mineral processing, equipment selection, drilling and blasting.

Undergraduate Degree: B.S. in Mineral Engineering

Graduate Degree: M.S. in Mineral Engineering with concentrations in:

- Geotechnical
- Mining
- Explosives Engineering.

Courses: <http://infohost.nmt.edu/~mining/assets/MineralEngineering.pdf>

NM Tech Department Link: <http://infohost.nmt.edu/~mining/>

Nuclear Engineering only offered at UNM Students majoring in Nuclear Engineering will understand physical processes and apply concepts in new ways. Nuclear engineers will design and work with safety aspects of energy solutions through nuclear fusion systems and dispose of radioactive waste. **B.S. M.S. Ph.D. Nuclear Engineering**

Careers, Internships and Experience: Students in nuclear engineering will solve problems and communicate well in oral and written media. Students also have more knowledge in math, science, nuclear physics and engineering.

Nuclear Engineering: Students will understand nuclear processes and study in the areas of physics, chemistry and engineering.

Undergraduate Degree: B.S. Nuclear Engineering

Graduate Degrees: M.S. Nuclear Engineering and Ph.D. in Engineering with a Nuclear Engineering concentration

Courses: <http://ne.unm.edu/programs-and-degrees/undergraduate/curriculum-and-advising.html>

UNM Department Link: <http://ne.unm.edu/>

Petroleum Engineering only offered at NM Tech Students majoring in petroleum engineering have discipline learning the development, exploration and conservation of oil and gas resources. Petroleum and natural gas engineers supervise drilling and completed programs, design select drilling of production equipment, estimate reserves, manage oil and gas properties.

B.S. M.S. Ph.D. Mineral Engineering

Careers, Internships and Experience: Students majoring in petroleum engineering can improve oil and gas recovery. Students study research and provide assistance to the department.

Petroleum Engineering: This is a four year program and includes 38 hours of petroleum engineering courses balanced in drilling, production and reservoir. The foundations of these subjects are based on math, chemistry, physics, geology and engineering sciences.

Undergraduate Degree: B.S. in Petroleum Engineering

Graduate Degrees: M.S. in Petroleum and Ph.D. in Petroleum Engineering

Courses: http://www.nmt.edu/images/stories/registrar/pdfs/2013-2014_PROGRAM_and_COURSE_Catalog_FINAL.pdf#page=148

Department Link: <http://infohost.nmt.edu/~petro/>

SCIENCE DEGREES

Environmental Science

NMSU, NM TECH and UNM



Plant and Environmental Sciences: Students majoring in environmental science focus on environmental problems and solutions. The field is competitive for graduates and their careers in the industry.

B.S. M.S. Ph.D. Environmental Science

Careers, Internships and Experience: Students have options for their environmental science careers, this includes research and problem solving. Career titles are as follows: Environmental Educator, Environmental Engineer, Parks Ranger, Recycling and Waste Disposal Management.

NMSU Students majoring in Environmental Science will focus on environmental problems and solutions.

Undergraduate Degree: B.S. in Environmental Science

Graduate Degree: M.S. in Environmental Science

Courses: <http://nmsu.smartcatalogiq.com/en/2015-2016/Undergraduate-Catalog/College-of-Agricultural-Consumer-and-Environmental-Sciences/Plant-and-Environmental-Sciences/DEGREE-Bachelor-of-Science-in-Environmental-Science/MAJOR-Environmental-Science>

NMSU Department Link: <http://aces.nmsu.edu/academics/pes/>

NM Tech Students majoring in Environmental Science have many graduate programs, but undergraduate degrees they can major in focus on Geochemistry, Geology, Geophysics, and Environmental Geology and Hydrology.

Undergraduate degrees:

B.S. in Earth Science

- Environmental Geology
- Geochemistry
- Geology
- Geophysics
- Hydrology
- Petroleum Geology

B.S. in Environmental Science

- Biology
- Chemistry
- Geology
- Hydrology
- Instrumentation and Measurements

Graduate Degrees:

M.S. Environmental Science

- Geology
- Geochemistry
- Geophysics (Solid Earth)
- Hydrology

Ph.D. in Earth and Environmental Science

- Geochemistry
- Geophysics (solid earth)
- Geology
- Geobiology
- Hydrology

Courses: <https://www.ees.nmt.edu/courses>

NM Tech Department Link: <https://www.ees.nmt.edu/>

UNM The department offers students a variety of introductory and intermediate courses with various research opportunities in various fields.

Undergraduate Degree: B.S. in Environmental Science

Graduate Degrees: M.S. in Earth and Planetary Sciences and Ph.D. in Earth and Planetary Sciences

Courses: <http://catalog.unm.edu//catalogs/2015-2016/courses/EPS/index.html>

UNM Department Link: <http://epswww.unm.edu/>

Animal Science only offered at NMSU Students majoring in Animal Science is for students who want to become veterinarians. Students will take pre requisite courses for veterinary medical schools, but the courses at NMSU provide hands on experience with large and small animals. **B.S. Animal Science**

Careers, Internships and Experience: Animal Science allows students to have an opportunity look more into specializing degrees and career goals through companion animals and equine science.

Animal Science: Students taking courses for Animal Science will learn about animals. The courses are aimed towards learning more about animal production, management and marketing. Students are also prepared for employment in the animal agriculture industry.

Undergraduate Degree: B.S. in Animal Science

Courses: <http://nmsu.smartcatalogiq.com/en/2015-2016/Undergraduate-Catalog/College-of-Agricultural-Consumer-and-Environmental-Sciences/Animal-and-Range-Sciences/DEGREE-Bachelor-of-Science-in-Agriculture/MAJOR-Animal-Science>

NMSU Department Link: <http://aces.nmsu.edu/academics/anrs/>

Food Science Technology only offered at NMSU Students majoring in food science use engineering, biological and physical sciences to study nature, deterioration processing and improvement of food for consumers **B.S. and M.S. in Food Science Technology**

Careers, Internships and Experience: Food technologist, Sensory Scientist, Food Chemist, Inspector, Food Engineer and Flavorist.

Undergraduate Degree: B.S. in Food Science and Technology

Graduate Degree: M.S. in Food Science and Technology

Courses: <http://nmsu.smartcatalogiq.com/en/2015-2016/Undergraduate-Catalog/Courses/FSTE-FOOD-SCIENCE-TECHNOLOGY>

NMSU Department Link: <http://aces.nmsu.edu/academics/fcs/food-science-and-technol.html>

Earth and Planetary Sciences only offered at UNM Students majoring in earth and planetary sciences will get an understanding for the earth's resources and earth processes for rock, air and water.

B.S. M.S. and Ph.D. Earth and Planetary Sciences

Careers, Internships and Experience: Students gain experience with their undergraduate degree to do research. Students who want to do research opportunities can be taken at any stage in the curriculum.

Earth and Planetary Sciences: Students will get an understanding in intermediate courses and research opportunities. Graduate students will get experience with climatology and paleoclimatology and other science materials.

Undergraduate Degree: B.S. Earth and Planetary Science

Graduate Degrees: M.S. and Ph.D. in Earth and Planetary Science

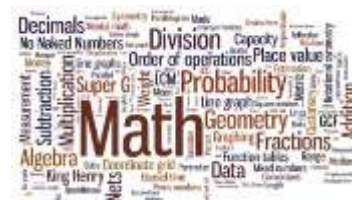
Courses: <http://epswww.unm.edu/undergraduate-degree-programs/eps-bs-and-ba-degree-requirements/>

UNM Department Link: <http://epswww.unm.edu/>

MATHEMATICS DEGREES

NMSU, NM Tech and UNM

Mathematics: Students majoring in math address math problems. Students will create and communicate math knowledge, collaborate with other researchers and solve engineering scientific problems. Students who graduate from NMT with a Bachelor of Science degree will write, understand math and think logically. Graduates will use math in a variety of areas to analyze applied problems and present work in a professional manner. **B.S. M.S. and Ph.D. in Mathematics**



Careers, Internships and Experience: Students majoring in math can work in many fields such as climate, medicine, national security, robotics and animated films. Students can also get internships through the American Mathematical Society <http://www.ams.org/programs/students/students/>. Students prepare for their career in math by applying to graduate school and explore math research <http://www.ams.org/careers/>. Students are employed by the department as graders or lab facilitators.

NMSU Students will select five upper division courses and must take three more advanced courses in related fields.

Undergraduate Degree: B.S. in Mathematics

Graduate Degrees: M.S. in Mathematics and Ph.D. in Mathematics

Courses: <http://nmsu.smartcatalogiq.com/en/2015-2016/Undergraduate-Catalog/College-of-Arts-and-Sciences/Mathematical-Sciences/DEGREE-Bachelor-of-Science/MAJOR-Mathematics>

NMSU Department Link: <https://www.math.nmsu.edu/>

NM Tech Students will have a solid background in Math and they will have an opportunity to specialize in a particular area. Students can combine a major in math with a major in another field as well.

Undergraduate Degree: B.S. in Mathematics

Graduate Degrees: M.S. in Mathematics and Ph.D. in Applied and Industrial Mathematics

Courses: http://www.nmt.edu/images/stories/registrar/pdfs/2013-2014_PROGRAM_and_COURSE_Catalog_FINAL.pdf#page=87

NM Tech Department Link: <http://infohost.nmt.edu/~math/>

UNM Students, see the link to the Math Departments page to learn more about Math.

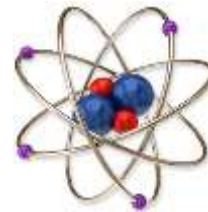
Undergraduate Degree: B.S. in Mathematics with concentrations in

- Pure Mathematics
- Applied Mathematics
- Mathematics Education
- Mathematics of Computation

Graduate Degrees: M.S. in Mathematics and Ph.D. in Mathematics with options in Pure Mathematics, Applied Mathematics and Applied Statistics.

Courses: <http://math.unm.edu/courses/current-term/math>

UNM Department Link: <http://math.unm.edu/>



PHYSICS and ASTROPHYSICS DEGREES

NMSU, NM Tech and UNM

Physics: Students majoring in Physics are encouraged to experiment and pursue a scientific background. Fundamental courses are offered in the areas of physics, atomic and nuclear physics, classical mechanics with several classes with labs. Students will have the opportunity to participate in research projects during the semester, summer, class and lab work. Undergraduate students are involved in working with faculty research and publishing papers.

B.A., B.S. M.S. and Ph.D. in Physics

Careers, Internships and Experience: Students have opportunities to be involved in faculty research. Students can also look into Atmospheric physics and astrophysics with a basic physics degree. Undergraduate students are encouraged to get involved in working with faculty to do research and publish papers.

NMSU Students majoring in Physics will work with research projects in different areas.

Undergraduate Degrees: B.A. and B.S. in Physics

Graduate Degrees: M.S. in Physics and Ph.D. in Physics

Courses: <http://nmsu.smartcatalogiq.com/en/2015-2016/Undergraduate-Catalog/College-of-Arts-and-Sciences/Physics/DEGREE-Bachelor-of-Science/MAJOR-Physics>

NMSU Department Link: <http://physics.nmsu.edu/>

NM Tech Students taking Physics need to complete a total of 130 hours and additional credit hours may be taken.

Undergraduate Degree: B.S in Physics

Graduate Degrees: M.S. in Physics and Ph.D. in Physics

Courses: <http://physics.nmt.edu/coursework/undergraduate/>

NM Tech Department Link: <http://physics.nmt.edu/coursework/undergraduate/>

UNM Each Physics and Astrophysics degree provides students with a foundation of knowledge in Physics and Astronomy. Students can also solve scientific problems and learn more technical skills in math.

Undergraduate Degree: B.A. and B.S. in Physics or Astrophysics with concentrations in

- Optics
- Biophysics
- Earth and Planetary Sciences

Graduate Degrees: M.S. in Physics and Ph.D. in Physics

Courses: http://physics.unm.edu/pandaweb/classes/spring_2015.php

UNM Department Link: <http://physics.unm.edu/>

NMSU Contact Information

New Mexico State University

1780 East University Avenue

Suite 850 Las Cruces, NM 88003

Phone: 575.646.3121 or 800.662.6678 (Toll Free)

Email: admissions@nmsu.edu

Website: <http://admissions.nmsu.edu/apply/>

NM Tech Contact Information

New Mexico Tech

801 Leroy Place, Socorro, NM

Phone: 1.800.428.8324

Email: admission@admin.nmt.edu

Website: <http://www.nmt.edu/office-of-admission>

The University of New Mexico

1 University of New Mexico

Albuquerque, NM 87131

Phone: 277.8900

Website: <http://admissions.unm.edu>