

Introducing Geomatics

Defining boundaries and measuring land have been an important part of human endeavor since the beginning of recorded history.

While the practice of delineating boundaries dates back to ancient times, the technology used today is as high tech as it comes – unmanned aerial vehicles, digital mapping, geodesy, geographic information systems, global positioning systems, land information management, photogrammetry, and remote sensing are all part of this cutting-edge program of study.

The College of Engineering at New Mexico State University launches a new degree program – a revamp of the former surveying engineering program.

The geomatics four-year bachelor's degree will feature studies of new technologies and flexible ways for degree completion.



The Science of Geomatics

Geomatics is the science of precision measurement of terrestrial and three-dimensional position of points on, above and below the earth's surface and the distance and angles between. This information is used for the design of infrastructure including roads, bridges and legal boundaries for ownership.



A new way to earn a degree

2 + 2 degree completion

Students who wish to begin the program while attending community college or through online coursework and complete the final two years on campus, geomatics is a two-year completion program: students can take general education courses, along with geomatics pre-requisites such as drafting, beginning surveying, math and science online or at a community college. The remaining two years of technical coursework would be completed at the main NMSU campus in Las Cruces.

Opportunities

- ⇒ **Online classes**
- ⇒ **2 + 2 degree completion**
 - (2 years community college or online, 2 years NMSU)
- ⇒ **120 credit hours**
- ⇒ **Meets requirements for *New Mexico Professional Land Surveyor licensure***
- ⇒ **Good salaries with a**
 - (national median salary \$70K+ (payscale.com))
- ⇒ **High demand—work for:**
 - private surveying, construction and engineering firms;
 - government highway departments and land commissions;
 - U.S. Forest Service, Bureau of Land Management.



Curriculum: 120 Credits

For full details, visit <https://catalogs.nmsu.edu/>.

General Education

State of NM Common Core 50 credits

Program Specific

70 credits

Mathematics

- ⇒ Calculus and Analytic Geometry II
- ⇒ Introduction to Linear Algebra OR
- ⇒ Matrix Theory and Applied Linear Algebra
- ⇒ Statistics for Engineers and Scientists OR
- ⇒ Statistical Applications

Technical Coursework

- ⇒ Introduction to Engineering
- ⇒ Computer Drafting Fundamentals OR
- ⇒ Survey Drafting Applications
- ⇒ Real Estate Principles and Law I OR
- ⇒ Legal Environment of Business
- ⇒ Software Technology I OR
- ⇒ C++ Programming I

Surveying Engineering

- ⇒ Plane Surveying OR
- ⇒ Surveying Fundamentals
- ⇒ Introduction to LIS OR
- ⇒ Cartography and Geographic Info. Systems
- ⇒ Precise Digital Mapping
- ⇒ Legal Principles and Boundary Law I
- ⇒ Construction Surveying/Automation Tech.
- ⇒ Laser Scanning Mapping Technologies
- ⇒ Introductory Spatial Data Adjustment I
- ⇒ Site/Land Development and Layout
- ⇒ Intro. to Geodesy/Geodetic Control Surveying
- ⇒ Advanced Survey Measurements, Analyses and Adjustments
- ⇒ Spatial Data Integration and Analysis
- ⇒ GNSS Positioning
- ⇒ Legal Principles and Boundary Law II
- ⇒ Emerging Technology in Geomatics
- ⇒ Fundamentals of Geographic Information Science and Technology
- ⇒ Engineering Economy
- ⇒ Senior Internship or Senior Project

Engineering Technology and Surveying Engineering Department

MSC 3566

New Mexico State University

PO Box 30001

Las Cruces, NM 88003

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575-646-2236

New Mexico State University



Geomatics

Baccalaureate Program



All About Discovery!™

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All About Discovery!™

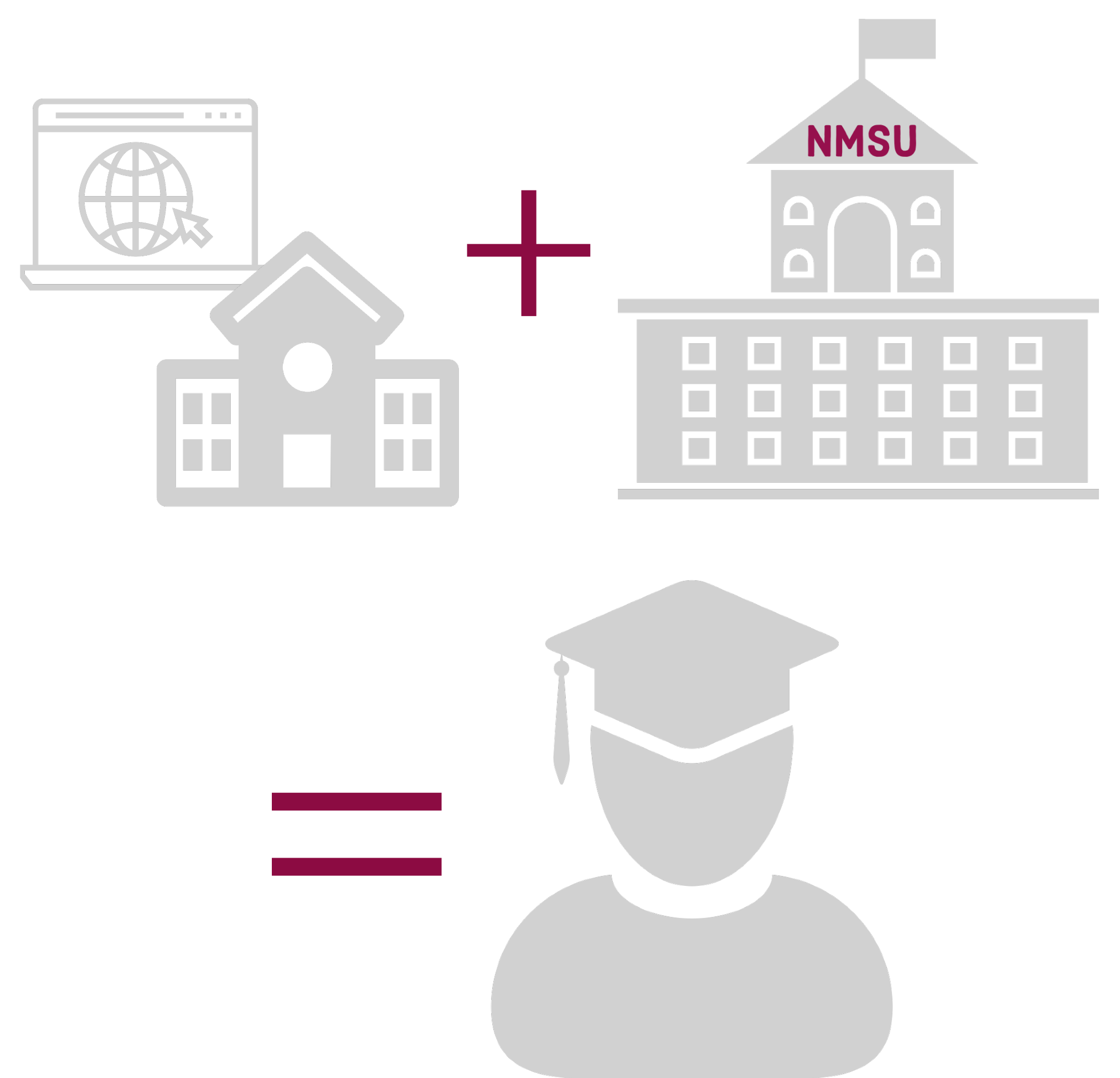
College of Engineering

et.nmsu.edu

Introducing GEOMATICS

The geomatics four-year bachelor's degree will feature studies of new technologies and flexible ways for degree completion.

2+2 Degree Completion



You may begin the program while attending community college or through online coursework, and then complete the final two years' courses online or at NMSU campus. Geomatics is a two-year completion program.

Opportunities

- **Online Classes**
- **2 + 2 Degree Completion**
2 years community college or online, 2 years at NMSU
- **120 Credit Hours**
- **Meets requirements for New Mexico Professional Land Surveyor licensure**
- **Good Salaries**
 - National median salary \$69K, [payscale.com](https://www.payscale.com)
- **High Demand**
 - Work for: Private surveying, construction firms
 - Government highway departments and land commissions
 - U.S. Forest Service, Bureau of Land Management
- **100% of NMSU Geomatics graduates get hired**



GEOMATICS

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Program Specifics 70 cts.

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Engineering Technology and
Surveying Engineering Department
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P.O. Box 30001
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BE BOLD. Shape the Future.
New Mexico State University
URL

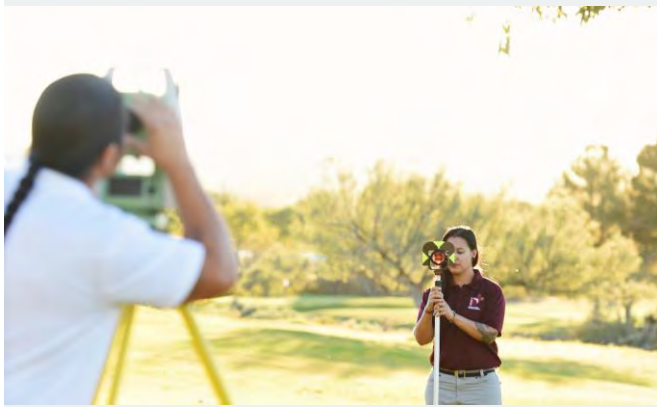
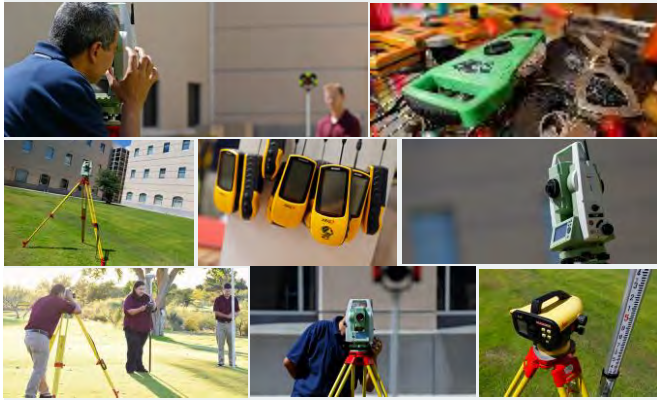
GEOMATICS

College of Engineering



NM
STATE

BE BOLD. Shape the Future.
New Mexico State University

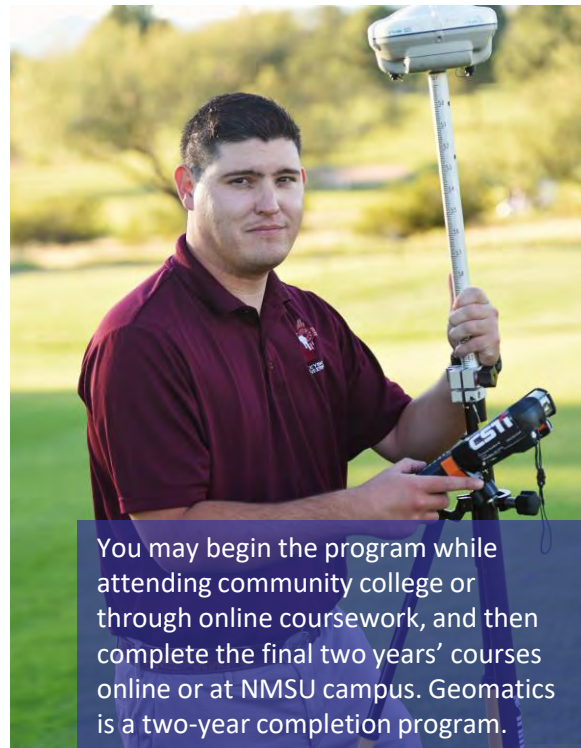


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