

# Surveying Engineering

## New Mexico State University



Surveying Engineering involves the application of knowledge to the analysis, design, and execution of surveying and mapping projects and the design of land mapping and information systems. Surveyors rely on an understanding of the science of surveying measurement and analysis, the legal principles of boundary location, the laws related to boundaries and land use, and applicable mathematical and computational theories and principles when performing this work. Positional accuracy, land planning and development concepts pertinent to subdivision of land and property surveys, land record and land tenure concepts as well as earth-related sciences such as geodesy are each a part of professional surveying. Surveying Engineers work for private surveying or engineering firms, for City, County, State or Federal Highway Departments, for State Lands Commissions, for the US Forest Service and for the US Bureau of Land Management.

### MISSION

The mission of the Department of Surveying Engineering is to provide men and women with the rigorous, fundamental education needed to enter and succeed in the surveying and surveying-related professions.

To accomplish this mission, the Surveying Engineering Department will introduce students to the theory and application of recognized surveying principles. Graduates of the program will:

- acquire a sound and fundamental understanding of the scientific, mathematical, and engineering principles underlying technology;
- acquire a breadth and depth of education to understand the legal, political, and social context of surveying activities;
- develop the ability to appropriately collect, analyze, interpret, and apply survey and survey-related data;
- develop the ability to recognize, analyze, and solve survey and survey-related problems;
- acquire the verbal and written skills necessary to contribute productively to society;
- acquire an understanding of responsibilities and ethics of surveying professionals;
- develop the ability to work on multidisciplinary teams; and recognize the need for and develop the ability to engage in life-long study and learning.

**SURVEYING ENGINEERING IS A CAREER WITH MANY CHALLENGES AND OPPORTUNITIES. BECOME A PART OF A DYNAMIC PROFESSION WITH A DEGREE IN SURVEYING ENGINEERING FROM NEW MEXICO STATE UNIVERSITY.**



## Life as a NMSU Surveying Engineering Student

Surveying Engineering students at NMSU are a closely knit group who learn, work and play together. As a Surveying Engineering student you will make friends and business contacts that will last a lifetime.

The Surveying Engineering students have an active student organization, the ACSM/NMPS Surveying Student Chapter, that sends students to local, state, and national surveying meetings. The students also compete against students from other surveying programs to test their knowledge and skills in surveying. Students are involved in projects that assist the local community providing services to organizations such as Habitat for Humanity. In addition, students are involved with the Mesilla Valley Maze, a project in which they design and survey a maze.

Summer jobs in surveying are plentiful. Even in the midst of the current downturn in employment, recruiters are asking for students to work summers for private firms and government agencies doing a variety of tasks. The Bureau of Land Management, Cadastral Surveys Division, works with many Surveying Engineering students to provide them with summer jobs, and with other forms financial aid up to, and including, paying student tuition.

Many Surveying Engineering students transfer into the program from other colleges and universities. If you should find that you are unable to attend NMSU right away, the faculty are willing to help you plan for eventual transfer to NMSU by advising you on coursework that you can complete at your local college or university.

Although the Surveying Engineering curriculum is set up to be completed in four year, the average Surveying Engineering student takes about 5 years to graduate. Surveying Engineering graduates are highly recruited from both within and outside of New Mexico. Starting salaries range from about \$28,000 to \$40,000 per year.



## Surveying Coursework

A degree in Surveying Engineering requires 31 semester credits of General Education as defined by NMSU. It also requires one year combined math (at the level of calculus and above) and science coursework. An additional 48 semester credits of surveying and engineering coursework is required. Other coursework include electives and preparatory courses in CAD and computer programming.

You can add to your basic coursework in Surveying Engineering to prepare for a dual degree or to prepare for advanced education such as business or law school.

## Contact Us

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## Admission to NMSU

To apply for admission to New Mexico State University, please call or write to:

Admissions Office  
PO Box 30001, MSC 3A  
Las Cruces, NM 88003-8001

Phone: 1-800-662-6678  
Local: 1-505-646-3121

Email [Admissions@nmsu.edu](mailto:Admissions@nmsu.edu)

TDD 1-505-646-8092