What Does a Mineral Engineer Do?

A mineral engineer’s responsibilities cover a wide range of applications and disciplines related to mining raw materials used by virtually all industries. Responsibilities include production planning, equipment selection, blasting, stability and safety of the surface and underground excavations, ventilation, health and safety, mineral exploration, and economic analyses.

Curriculum

The program is Accredited by ABET's Engineering Accreditation Commission (EAC). In addition to all the basic engineering and science topics, the students take courses concentrated in:

1. Geology, ore deposits, and field mapping
2. Economic analyses
3. Mine design surface and underground
4. Soil and Rock mechanics
5. Tunneling and underground excavation
6. Slope stability
7. Ventilation and health and safety
8. Foundation Engineering
9. Tailings dam design and mine waste handling
10. Environmental Issues
11. Capstone senior design project

Most courses are intensely focused on engineering design.

Why Join Mineral Engineering at New Mexico Tech?

1. Small department and small class sizes
2. Faculty are very close to and very active with the industry
3. The mining industry is a big supporter of the department
4. All students get summer internships and immediate job offers

**Career**

Our graduates find employment in mining, construction/civil, mineral exploration, geotechnical engineering, and explosive engineering. In construction-related industries, our students have joined consulting or construction firms or been employed as quality control or project engineers. Some have advanced to project managers. Job opportunities in research and with government agencies are also available. The department has very close ties with the industry. Our students easily find summer internships, particularly with mining companies. Starting salaries are around $75,000 to $85,000 dollars per year, depending on location.

**Faculty**

**William X. Chavez, Jr., Professor**
B.Sc. in Geology and Mining Engineering, New Mexico Institute of Mining and Technology; M.A. & Ph.D. in Geology, University of California, Berkeley
Mineral economics, petrology, applied mineral exploration, mine waste characterization

**Navid Mojtahai, Professor and Department Chair**
B.Sc. & M.Sc. in Mining Engineering, New Mexico Institute of Mining and Technology
Ph.D. in Mining Engineering, University of Arizona
Drilling and blasting, mine planning and equipment selection, site investigation, rock slope engineering, tunneling and underground construction, computer applications

**Mehrdad Razavi, Associate Professor**
B.Sc. & M.Sc. in Civil Engineering, University of Shiraz, Iran
Ph.D. in Geotechnical Engineering, Washington State University

**Geotechnical Engineering, Computer Applications, Image Possessing, X-Ray Computed Tomography, and Soil-Structure Interaction**

**Pedram Roghanchi, Assistant Professor**
B.Sc. in Mining Engineering, Tehran Polytechnic University
M.Sc. & Ph.D. in Mining Engineering, University of Nevada, Reno
Mine Ventilation, Health and Safety, geomechanics, and mine design

**Wnfeng Li, Assistant Professor**
B.Sc.: China University of Mining & Technology
Ph.D. in Mining Engineering, China University of Mining & Technology
Ph.D. in Petroleum Engineering, The University of Houston

**Laboratories**

The department has advanced laboratories for instruction and research related to geotechnical and geomechanical engineering, exploration, ventilation, and health and safety.