

Mining Engineer

Work out how to get rock out of the ground safely, cheaply and without wrecking the place, then keep the people underground alive.

TYPICAL PAY

\$106,220

a year, full time

PAY RANGE

\$67k to \$170k

starting to experienced

TIME TO QUALIFY

4 to 8 years

after high school

DEMAND

Limited

job outlook

LICENCE NEEDED

Yes

regulated job

WHERE YOU WORK

Mines and quarries, engineering consultancies, equipment supplie...

How you get there

- 1 High school** Grades 11 and 12
Calculus, physics and chemistry. Geology if your school offers it, but the math matters more.
- 2 Bachelor's degree in mining engineering** 4 years
Four years at a program accredited by ABET (the Accreditation Board for Engineering and Technology). Only a couple of dozen schools off...
- 3 Field session and internships** Summers
Most programs put you underground in a real mine as part of the degree, and summer internships at operating mines are close to standard.
- 4 Fundamentals of Engineering exam** Final year
Sit it in your final year while the theory is fresh. Passing makes you an engineer in training.
- 5 Four years of supervised experience** About 4 years
Working under licensed engineers on real projects. This is the part nobody can shortcut.
- 6 Principles and Practice of Engineering exam** After the experience
There is a specific Mining and Mineral Processing version. Pass it, apply to your state board, and you are a licensed Professional Engineer.

Pros and cons

- + Strong pay straight out of a four year degree
- + A small field where good people are known and recruited
- + Real responsibility early, and work you can walk around in
- Employment in this occupation is expected to grow slowly
- Remote sites, rotations and long stretches away from home
- Mining is tied to commodity prices, so layoffs come in cycles

Good to know

There is a whole university named after this

Colorado School of Mines was founded in 1874 in Golden, Colorado, and is still a public research university built around earth, energy and materials. Its mining students do a field session in an actual undergro...

Most mines are boring on purpose

Sand, gravel and crushed stone operations vastly outnumber gold and coal mines in the United States. Roads, concrete and glass all start in a quarry that nobody makes films about.

Optional boosts

Ventilation engineering. Rock mechanics and ground control. Blasting and explosives engineering. Mine planning software and resource modeling.

Where these numbers come from

My Next Move: Mining and Geological Engineers, Including Mining Safety Engineers
National Council of Examiners for Engineering and Surveying: the Principles and Practice of Engineering exam
Colorado School of Mines
Mine Safety and Health Administration, United States Department of Labor

Numbers checked September 2026. Pay figures are typical full-time annual amounts in United States dollars, based on Bureau of Labor Statistics wage data and published pay scales. They vary by state, employer and experience. Tuition is for in-state students at public schools unless the card says otherwise. Sources, links and the click-through version: <https://career.help/us/careers/mining-engineer>



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