Some students may consider Mining Engineering to be low-technology, dirty, and damaging to the environment. In fact, Mining Engineers lead the industry in innovation and new technology, and of course, in protecting the environment. Some students think that Mining Engineers only work “out in the boonies” when, in fact, Mining Engineers can often choose to be located in towns and cities with a great social climate and quality of life, and they can choose to work in almost any country on earth. Mining Engineering is an adventure.

Do students who graduate in this discipline often pursue graduate work (Masters, PhD, etc.)?

Increasingly students with a bachelor's degree are seeking advanced degrees after graduation or while working. Advanced degrees include a Master’s or PhD in Mining Engineering, another engineering field or geology, or an MBA or a related business degree. The advanced degrees give the engineer a competitive advantage over their peers for advancement. An MBA is advantageous for students seeking a career path in mine management.

What misconceptions do students often have about this discipline?

Some students may consider Mining Engineering to be low-technology, dirty, and damaging to the environment. In fact, Mining Engineers lead the industry in innovation and new technology, in safety improvements, in automation of operations and management of big real-time data flows, and of course, in protecting the environment. Some students think that Mining Engineers only work “out in the boonies” when, in fact, Mining Engineers can often choose to be located in towns and cities with a great social climate and quality of life, and they can choose to work in almost any country on earth. Mining Engineering is an adventure.

What minors are often paired with this major/degree? Why?

Mining Engineering students often take minors in the following: explosives engineering, underground construction and tunnelling, mineral economics, mineral processing, social, cultural, and ethical engineering, occupational health and safety, petroleum engineering, geology, corporate social responsibility and Humanitarian Engineering (freshmen only at Mines). But overall, a Mining Engineer needs to have a full knowledge of geologic sciences.

What degree(s) is this discipline often compared to?

There is no real comparative discipline. Mining Engineers very often develop minors in Geology or Civil or Petroleum Engineering. In fact, Mining Engineering students often get their first jobs in the Underground Construction and Tunnelling industry, and CIM has the only degree in that field in the entire U.S.

Why should a student pursue this degree? Why should they not?

Students desiring a career involving strong individual responsibility across the profession of engineering, working at surface or underground mine sites, working in many countries during a career – these students will enjoy a career in Mining Engineering. Students who desire to make a major contribution providing society’s requirements, working at surface or underground mine sites, working in many countries during a career – these students will enjoy a career in Mining Engineering. Students who desire to make a major contribution providing society’s requirements, working at surface or underground mine sites, working in many countries during a career – these students will enjoy a career in Mining Engineering. Students who desire to make a major contribution providing society’s requirements, working at surface or underground mine sites, working in many countries during a career – these students will enjoy a career in Mining Engineering.

The future of this discipline includes...

Environmental science and engineering, social sciences, economics, safety engineering, and innovation and application of new technologies and methods to enhance geologic exploration, mine planning and operations, environmental management and successful and responsible mine closure.

Who excels in this discipline?

Mining Engineering students seek to make a difference - they care about the world and its people. They like applying their engineering knowledge to solve real-world problems. They understand how to listen to stakeholders, and they expect to work collaboratively. They also like working in remote sites, enjoying the people, the geology, the challenges, and of course nature!

Mineral Engineering is one of the oldest engineering professions, necessary profession for mineral production. It is a field for students who love the outdoors, or who love working for government agencies or private companies with a focus on mining. It requires a deep understanding of rock and ore, as well as soil and water, as well as a readiness to travel internationally. It is also a field that requires a lot of hard work and dedication, as mining is a challenging and demanding profession. However, for students who are passionate about mining and the environment, it can be a rewarding and fulfilling career.