Department of Mining Engineering

Degree Offered

- Bachelor of Science in Mining Engineering (B.S.Min.E.)
- Dual Major in Mining and Civil Engineering
- Dual Major in Mining Engineering and Geology

Nature of the Program

Mining engineering deals with discovering, extracting, processing, marketing, and utilizing mineral deposits from the earth’s crust. The role of the mining engineer may be quite diversified, and the field offers opportunities for specialization in a large number of technical areas. The trained professional in this field is well versed in mining and geology and also in the principles of civil, electrical, and mechanical engineering as applied to the mining industry. With the present trend toward the use of engineers in industrial management and administrative positions, the mining engineer’s training also includes economics, business, personnel management, and the humanities.

The mission of the Bachelor of Science in Mining Engineering (B.S.Min.E.) program at West Virginia University has been established to produce graduates who are thoroughly prepared to meet the operational and engineering challenges of the mining industry and to continue their studies in graduate programs. The Bachelor of Science degree in Mining Engineering is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org, under the General Criteria and the Program Criteria for Mining Engineering.

Professional technical courses include surface and underground mining systems, engineering principles of blasting, materials handling, ventilation, roof control, rock mechanics, mining equipment, coal and mineral preparation, plant and mine design, geology, and water control. In addition, students receive a foundation in the managerial, financial, environmental, and social aspects of the operation of a mining enterprise. Local coal fields, mines, and preparation plants provide extensive opportunity for research, instruction, and field work in a real-world situation.

In the fourth year, the student may specialize in such career areas as coal mining, ore mining, or other phases of mining engineering through the proper selection of design problems and electives. The student will be assigned an advisor who will assist in this phase of the program.

Program Educational Objectives

The four program educational objectives of the WVU BSMinE have been established:

1. Our graduates will be successful in their professional careers and will continue to develop professionally and serve in leadership roles in industry, research, public service, and/or post-graduate education.
2. Our graduates will achieve their professional objectives by coordinating and leveraging key aspects of Mining Engineering: geology, exploration, valuation, development, exploitation, reclamation, and beneficiation.
3. Our graduates will successfully utilize engineering principles and technology to solve engineering problems in their career.
4. Throughout their careers, our graduates will successfully demonstrate their awareness and appreciation for professional registration, ethics, and lifelong learning while recognizing their obligations to society, the environment, the profession, and miner health and safety.

FACULTY

CHAIR

- Qingqing Huang - Ph.D. (University of Kentucky)
  Mineral processing, Coal preparation, Explosion mitigation, Extractive metallurgy

ASSISTANT PROFESSOR

- Qingqing Huang - Ph.D. (University of Kentucky)
  Mineral processing, Coal preparation, Explosion mitigation, Extractive metallurgy
- Deniz Talan - Ph.D. (West Virginia University)
  Critical mineral recovery from secondary sources, environmental assessment, and general mineral processing topics
- I. Berk Tulu - Ph.D. (West Virginia University)
  Coal/stone/hard rock pillar stability, Coal bump/burst, Rock drilling and fragmentation
- Deniz Tuncay - Ph.D. (West Virginia University)
  Ground control, rock mechanics, and geomechanics
LECTURER

• Dan Alexander - Ph.D. (West Virginia University)
  Mineral economics evaluation

For specific information on the following programs please see the links to the right:

• Mining Engineering, B.S.Min.E.
• Dual Degree CE/MINE
• Dual Degree MINE/Geology