MINING ENGINEERING

Mining engineers find, develop and recover resources needed to support the daily needs of society, from the minerals that support our daily health to the materials used for roads, buildings, computers and cell phones. The mining engineering discipline requires a broad range of engineering skills along with the ability to apply specialized technical knowledge in the areas of geotechnical engineering, explosives engineering, mine ventilation, mine power systems, automation & control, environmental engineering and extractive metallurgy.

PURSUING MINING ENGINEERING AT UK

- One of only 13 mining programs in the nation
- Get hands-on experience through summer internships
- Students who earn scholarships and participate in the summer internship program can graduate from UK without student loan debt
- Student organizations, national conferences and research field trips provide opportunities for national and even international travel
- Small class sizes allow for individual attention from UK faculty members
- Companies come to our campus to recruit you for summer internships and full-time employment
- Earn $10,000-$15,000 per summer through summer employment opportunities where travel and lodging is often covered

Faculty members in the mining engineering program are well-known and highly respected in their specialized areas throughout academia and the industry. This ensures that students will receive the highest-quality education and training from instructors with practical knowledge of the discipline. Hands-on instruction is provided in state-of-the-art laboratories that house modern equipment used in each of the specialty areas of mining engineering.

UNDERGRADUATE RESEARCH IN MINING ENGINEERING

Paid undergraduate research opportunities are available nationally and internationally. Students have the opportunity to work with faculty members in their labs in areas such as blasting, automation, mine ventilation, recycling and extracting rare-earth elements. Regardless of your interests, mining engineering provides numerous avenues for pursuing your passions.

CAREER PROSPECTS IN MINING ENGINEERING

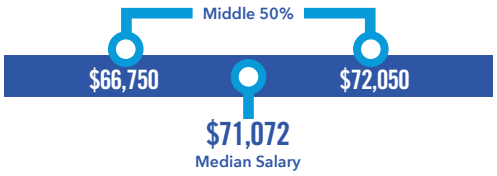
Retirements and growth in the mineral sector over the next 5-10 years are expected to create many openings for talented mining engineering graduates at starting salaries in the range of $71,000. Due to the number of expected retirements, career advancement is sure to be faster than most other professions. Opportunities in the mining engineering profession will always be available because of the need to provide resources for the nation and the world in a safe and environmentally friendly manner.

PROGRAM FACTS

Enrollment: 82
Common Minors: Earth & Environmental Sciences and Mathematics
Student Organizations:
ISEE, Mu Nu Gamma, Mucking Team, SME, RescUKats, Women in Mining, American Rock Mechanics Association

GRADUATE STARTING SALARIES

Median full-time starting salary info for 2021 new college graduates
National Association of Colleges and Employers - Summer 2022



INDUSTRY SECTORS:

- Mine Engineer
- Foreman
- Superintendent
- Chief Engineer
- Field Engineer
- Plant Manager
- Project Engineer

College of Engineering

For more information, visit:
engr.uky.edu/explore/mining-engineering

MINING ENGINEERING
Curriculum Synopsis

This list is a synopsis of classes that a student will take to pursue a degree in mining engineering. As part of the mining engineering curriculum, students must complete the pre-engineering requirements, major requirements and general education coursework, called UK Core.

Note: This synopsis represents one of several paths to a mining engineering degree. Consult the departmental website for details on specific paths.

- Major-specific
- Other
- Science
- Math
- General Education

YEAR ONE	YEAR TWO	YEAR THREE	YEAR FOUR
Engineering Exploration I and II	Elements of Mine Design	Electrical Circuits and Mining Machinery	Environmental Control System Design and Reclamation
Fundamentals of Engineering Computing	Explosives and Blasting	Introduction to Mine Systems Analysis	Mine Design Project I and II
Chemistry I	Mine Safety and Health Management	Minerals Processing	Mine Plant Machinery
Physics I	Mining Engineering Fundamentals	Mine Surveying	Minerals Processing Technical Elective
Chemistry or Physics Lab	Deformable Solids and Lab	Mine Systems Engineering and Economics	Mine Ventilation
Calculus I and II	Statics	Professional Development of Mining Engineers	Technical Elective
Composition and Communication I and II	Fundamentals of Geology	Rock Mechanics	Underground Mine Design
UK Core Course	Physics II	Surface Mine Design	UK Core Courses
	Principles of Physical Geology	Dynamics	
	Calculus III and IV	Introduction to Fluid Mechanics	
		UK Core Course	

TAKING CO-OPS?
When you participate in semester co-ops, the above schedule can adjust.

Detailed Curriculum Information: **engr.uky.edu/explore/mining-engineering**

The University of Kentucky's mining engineering program is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

Revised August 2022. Information subject to change. For the most up-to-date information on the UK College of Engineering, visit www.engr.uky.edu.

College of Engineering

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