

# MINING TECHNOLOGY, A.S.

**Begin Campus:** Fayette

**End Campus:** Fayette

**Program Note:** Only courses in the Maintenance Emphasis are available at Penn State Fayette for the Mining Technology, A.S. degree program.

## Program Description

The Associate of Science degree in Mining Technology blends basic sciences, mathematics, principles and practices of management, and applied courses in Mining Technology to prepare students for supervisory roles in the Mining industry. This major helps prepare students for either a production-oriented or a maintenance-oriented position in the mining industry. Graduates of this major, after serving the required apprenticeship, should be qualified to become certified managers in their field. All students complete a common core of classes, but must also choose to enroll in one of two emphases, Maintenance or Production.

### Maintenance Emphasis

The maintenance emphasis prepares students to become maintenance supervisors. Initially, graduates may work as apprentice electricians or mechanics to gain experience in repairs and planned maintenance. After certification is obtained, they may become involved with maintenance planning, working as or with the chief mine mechanic or chief mine electrician.

### Production Emphasis

The production emphasis helps prepare students to become mine supervisors or engineering aides. Initially, some of the duties are to run transit and act as survey party chief, keep mine maps up to date and make projections, take samples and run analyses, make time studies, and assist with materials handling layouts.

## What is Mining Technology?

The Mining Technology program prepares students for either a production-oriented or a maintenance-oriented position in the mining industry. Graduates of the major, after serving the required apprenticeship, can be qualified to become certified managers in their field.

### You Might Like This Program If...

- You have a strong interest in science, especially geology.
- You like to study mathematics and solve problems.
- You are hardworking and enjoy collaboration with others.
- Hands-on coursework is of interest to you.
- You are interested in the mining industry.
- You care about the environment.
- You are interested in employee safety and the laws and regulations that impact safety.

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## Entrance to Major

Students must have a minimum 2.0 GPA to change to this Associate degree after admission to the University.

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## Degree Requirements

**For the Associate of Science degree in Mining Technology, a minimum of 67 credits is required:**

Requirement	Credits
General Education	21
Requirements for the Major	58-59

**12 of the 21 credits for General Education are included in the Requirements for the Major. This includes: 6 credits of GWS courses; 3 credits of GN courses; 3 credits of GQ courses.**

### Requirements for the Major

To graduate, a student enrolled in the major must earn a grade of C or better in each course designated by the major as a C-required course, as specified by Senate Policy 82-44 (<https://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#82-44>).

Code	Title	Credits
<b>Prescribed Courses</b>		
CAS 100	Effective Speech	3
CMPSC 100	Computer Fundamentals and Applications	3
EDSGN 100	Cornerstone Engineering Design	3
ENGL 15	Rhetoric and Composition	3
GEOSC 20	Planet Earth	3
MATH 81	Technical Mathematics I	3
MATH 82	Technical Mathematics II	3
MNG 223	Mineral Land and Mine Surveying	2
MNGT 30		2
MNGT 110	Mining Administration and Law	3
MNGT 205W	Mining Systems Technology	3
MNGT 210	Mine Machine Dynamics	3
MNGT 211	Practicum in Mining Technology	3
MNGT 214	Mining Management I	3
PHYS 150	Technical Physics I	3

*Prescribed Courses: Require a grade of C or better*

MNGT 100	Mining Technology Orientation	1
MNGT 204	Mine Plant Technology	3
MNGT 216	Mine Regulations and Laws	3

### Additional Courses

Select 8-9 credits from one of the following emphases: 8-9

Maintenance Emphasis:

MNGT 207	Electric Mine Machine Circuits
MNGT 208	Mine Power Distribution
MNGT 209	Mine Machinery Control Methods

Production Emphasis:

MNGT 202	Mining Ventilation
MNGT 213	Strata Control Methods
MNGT 215	Mining Management II

## General Education

Connecting career and curiosity, the General Education curriculum provides the opportunity for students to acquire transferable skills necessary to be successful in the future and to thrive while living in interconnected contexts. General Education aids students in developing intellectual curiosity, a strengthened ability to think, and a deeper sense of aesthetic appreciation. These are requirements for all associate degree students and are often partially incorporated into the requirements of a program. For additional information, see the General Education Requirements (<https://bulletins.psu.edu/undergraduate/general-education/associate-degree-general-education-program/>) section of the Bulletin and consult your academic adviser.

The keystone symbol appears next to the title of any course that is designated as a General Education course. Program requirements may also satisfy General Education requirements and vary for each program.

### Foundations (grade of C or better is required and Inter-Domain courses do not meet this requirement.)

- **Quantification (GQ):** 3 credits
- **Writing and Speaking (GWS):** 3 credits

### Knowledge Domains

- **Arts (GA):** 3 credits
- **Humanities (GH):** 3 credits
- **Social and Behavioral Sciences (GS):** 3 credits
- **Natural Sciences (GN):** 3 credits

**Note:** Up to six credits of Inter-Domain courses may be used for any Knowledge Domain requirement, but when a course may be used to satisfy more than one requirement, the credits from the course can be counted only once.

### Exploration

- **Any General Education course (including GHW and Inter-Domain):** 3 credits

## University Degree Requirements

### Cultures Requirement

3 credits of United States (US) or International (IL) cultures coursework are required and may satisfy other requirements

### Writing Across the Curriculum

3 credits required from the college of graduation and likely prescribed as part of major requirements.

### Total Minimum Credits

A minimum of 60 degree credits must be earned for an associates degree. The requirements for some programs may exceed 60 credits. Students should consult with their college or department adviser for information on specific credit requirements.

### Quality of Work

Candidates must complete the degree requirements for their major and earn at least a 2.00 grade-point average for all courses completed within their degree program.

### Limitations on Source and Time for Credit Acquisition

Credit used toward degree programs may need to be earned from a particular source or within time constraints (see Senate Policy 83-80 (<https://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#83-80>)). For more

information, check the Suggested Academic Plan for your intended program.

## Academic Advising

The objectives of the university's academic advising program are to help advisees identify and achieve their academic goals, to promote their intellectual discovery, and to encourage students to take advantage of both in-and out-of class educational opportunities in order that they become self-directed learners and decision makers.

Both advisers and advisees share responsibility for making the advising relationship succeed. By encouraging their advisees to become engaged in their education, to meet their educational goals, and to develop the habit of learning, advisers assume a significant educational role. The advisee's unit of enrollment will provide each advisee with a primary academic adviser, the information needed to plan the chosen program of study, and referrals to other specialized resources.

READ SENATE POLICY 32-00: ADVISING POLICY (<https://senate.psu.edu/policies-and-rules-for-undergraduate-students/32-00-advising-policy/>)

## Fayette

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## Career Paths

Graduates of the major, after serving the required apprenticeship, should be qualified to become certified managers in mining technology.

## Careers

Students completing the maintenance emphasis of the Mining Technology program are prepared to become maintenance supervisors. Initially, graduates may work as apprentice electricians or mechanics to gain experience in repairs and planned maintenance. After certification is obtained, they may become involved with maintenance planning, working as or with the chief mine mechanic or chief mine electrician. Students completing the production emphasis of the Mining Technology program are prepared to become mine supervisors or engineering aides. Initially, some of the duties are to run transit and act as survey party chief, keep mine maps up to date and make projections, take samples and run analyses, make time studies, and assist with materials handling layouts. Job titles include: Supervisor Trainee Mine Superintendent Service Engineer Mechanic Electrician Engineering Technician with a consulting firm or government mining research agency State or Federal Inspector.

MORE INFORMATION ABOUT POTENTIAL CAREER OPTIONS FOR GRADUATES OF THE MINING TECHNOLOGY PROGRAM (<https://fayette.psu.edu/mining-technology/>)

## Accreditation

This program is accredited by the Engineering Technology Accreditation Commission of ABET.

MORE INFORMATION ABOUT ABET ACCREDITATION (<https://www.abet.org>)

## Contact

### Fayette

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