

# Courses for MSHA and the Mining Industry

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U.S. Department of Labor  
Mine Safety and Health Administration  
National Mine Health and Safety Academy

FY 2021



Dedicated to the Health and Safety  
of the Nation's Miners

# Need Customized Training?



**Courses can be scheduled for on-site training or can be held at the National Mine Academy.**

**When scheduling a course, the length of the training can be modified to suit individual needs.**

Visit the Mine Safety and Health Administration  
at [www.msha.gov](http://www.msha.gov)

## Welcome

Welcome to the 2021 edition of Courses for MSHA and the Mining Industry.

Our Nation's mines produce more material than ever before. Sophisticated machinery and equipment allow miners to work in areas that are often complex and dangerous. Mining technology is always changing and every mine is unique. The mining industry is constantly in need of new miners. Most of these miners are inexperienced and must be trained prior to employment. This is why (1) Mine Safety and Health Inspections, (2) Technical and Engineering Assistance, and (3) Education and Training are important elements in ensuring a safe workplace. These are the three elements of MSHA's triangle of success.

Up-to-date and practical health and safety training is vital since mining occurs in a hazardous, ever-changing environment where there is little room for error.

The National Mine Health and Safety Academy, in Beaver, West Virginia, is the world's largest institution devoted to health and safety in mining. It is a central training facility for Federal mine safety and health inspectors, mine safety professionals, other government agencies, the mining industry, and labor.

Most of the Academy's courses are open to participants from all throughout the mining community. Classes are taught by Academy faculty and associate instructors and specialists from the mining industry, trade associations, colleges and universities, manufacturers, and other government agencies.

Whatever your interest in mine health and safety, you will find useful and practical training at the National Mine Health and Safety Academy.



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## History

Protecting those who work in our Nation's mines requires an awareness and understanding of the conditions that endanger their health and safety.

This problem was recognized more than 140 years ago when a proposal for a Federal mining bureau was submitted to Congress. It was not until nearly five decades later that a series of deadly mine explosions led to passage of the Organic Act of 1910. That Act created the Bureau of Mines.

Laws passed over the next 60 years enlarged the scope of legislation aimed at reducing mining hazards. The Federal Coal Mine Health and Safety Act of 1969 contained provisions for the training of Federal mine safety and health inspectors, as well as establishing education and training for states, mine operators, and miners. The Federal Mine Health and Safety Act of 1977 broadened these provisions to include metal and nonmetal mining. The National Mine Health and Safety Academy supports the requirements of the 1977 Act, and the newly enacted Mine Improvement and New Emergency Response Act of 2006.

## The Academy's Purpose and Goal

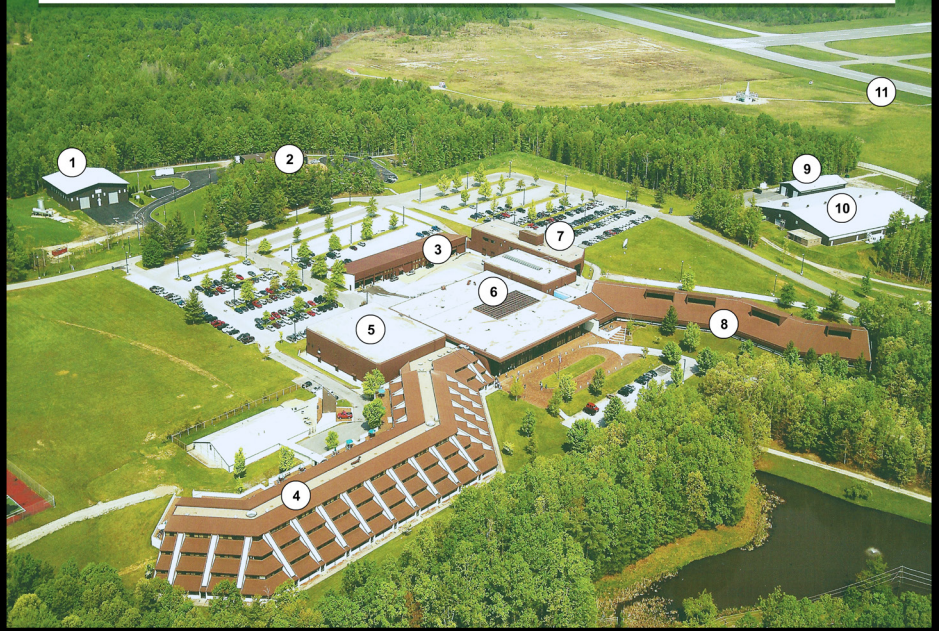
The purpose of the Academy is to design, develop, and conduct instructional programs that will assist in government, industry, and labor efforts to reduce injuries, illnesses, and fatalities in the mineral industries.

All of our programs, seminars, and courses are prepared with one idea in mind – to improve health and safety conditions in mines through education and training. This is our goal. Our success will be measured by the extent to which mine accidents and unhealthful conditions are reduced in future years.

# Academy Map

## Campus Map Key

- |                                    |   |
|------------------------------------|---|
| 1. Blue Falcon Mining Surface Lab  | 7. Instructional Materials and Distribution |
| 2. Beckley District Office         | 8. Classroom Wing                           |
| 3. National Air and Dust Lab       | 9. Mine Emergency Operations                |
| 4. Student Housing                 | 10. Mine Simulation Lab                     |
| 5. Gymnasium/ Beckley Field Office | 11. Raleigh County Airport                  |
| 6. Administration Building         |   |



## Academic Programs

### MSHA Training

All newly hired MSHA mine safety and health inspectors receive entry-level training. This training covers technical aspects of mine inspection and additional topics such as effective communications and professionalism.

Entry-level inspectors receive six modules of instruction (24 weeks total) at the Academy in conjunction with required web-based training and on-the-job training (OJT) sessions in the field.

Journeyman retraining presents up-to-date technical and regulatory information to journeyman mine safety and health inspectors to help them ensure that the mining community is served most effectively. The Academy also presents courses to provide journeymen with more in-depth training on specific subjects.

Technical Specialists receive training in a variety of subjects so that they remain informed regarding current technical and regulatory information.

The Academy offers computer training on various software applications to MSHA personnel and others from the mining industry and other government agencies.

## Training for Industry

All Academy courses are open to participants from throughout the mining community. These programs are taught by Academy and visiting outside instructors and specialists from the mining industry, trade associations, colleges and universities, manufacturers, and other government agencies. Seminars, workshops, and conferences are offered during the year, both at the Academy and at sites throughout the country.

Many courses provide certification or qualification to persons who take mandated examinations.

Examples of other courses available to the industry are Electrical Safety for Miners, Hoists and Elevators, Instructor Training Workshop (Part 48), Construction and Repairs Safety, Mine Elevator Inspection Program Training, Noise Hazards, Regulation and Procedures, and Surface Facilities and Coal Preparation. In addition, the Academy will develop and teach additional courses for industry and interested participants if valid requests are made.

Training activities in the Mine Simulation Laboratory cover mine rescue, firefighting, mine emergency response, simulated inspections, ventilation, roof control, haulage, supervisory training, and mine examination. Students come from MSHA, other Federal and state agencies, industry, labor organizations, and international mining delegates.

## **Academic Life**

### **Class Attendance**

A normal class is informal and dress is business casual. However, due to safety concerns, proper PPE should be worn to Academy classes that include mine labs and mine field trips. You may wish to bring formal business attire for the graduation ceremony or other activities.

A typical class day begins at 8:00 a.m. and ends at 4:00 p.m. All other day classes end by 5:00 p.m., unless otherwise scheduled.

Absences from class are approved for personal illnesses, emergencies, or death in a student's family. Students must notify their supervisor and Academy management, and make up work assigned while absent.

### **Grading System**

The Academy uses a grading system for MSHA entry-level courses of study and gives examinations in these classes. These grades are recorded, and students are informed of their progress through periodic grade reports.

### **Units of Credit/Certificates of Participation**

Students receive Continuing Education Units (CEUs) upon completion of an Academy program. One CEU is 10 contact hours of participation in an educational experience. The Academy does not grant degrees, but CEUs may be converted into hours of credit at other institutions.

Students who satisfy the Academy criteria for successful completion of courses of study receive a Certificate of Completion documenting the course title, date, and CEUs. Certificates are not given for individual entry level and journeyman level classes.

## **Academic Dishonesty**

The student can be disciplined or dismissed from the Academy for cheating, dishonesty, plagiarism, or knowingly furnishing false information to the Academy.

## **Withdrawal**

The student may withdraw from an Academy program without penalty because of injury or other extenuating circumstances. If you withdraw, you will not receive credit for the courses of study in which you were enrolled.

## **Transcripts**

You may request (in writing) a copy of your academic record. Your request must include your full name and complete address. Submit your request to:

National Mine Health and Safety Academy  
Student Services Branch  
1301 Airport Road  
Beaver, West Virginia 25813-9426  
FAX: (304) 256-3251

## **Student Life**

### **Food Service and Student Store**

Academy food service offers complete meals in a cafeteria setting. You may choose from a selection of freshly prepared entrees and desserts with a full range of beverages available to complement your meal. There is also a made-to-order deli and a salad bar. Heart-healthy and vegetarian selections are also available. Food service personnel can assist anyone who has special dietary needs. If you are an MSHA employee, you will receive a meal card when you check in. Present this card to the cashier upon entering the cafeteria serving line. Non-MSHA students who are in residence must pay for lodging and meals.

Academy students have access to a laundry area. Vending machines are located throughout the Academy for students and guests. Problems with vending can be addressed by contacting the Food Service Director at (304) 256-3553.

The student store, located next to the cafeteria, has a wide variety of sundries, souvenirs, and gifts. The food service and student store accept all major credit cards.

### **For Your Health and Safety**

Please observe all posted speed limits and all traffic and parking signs. If you need emergency medical attention, please dial ext. 555 or "0" and request medical assistance. Academy personnel will take you to a medical facility in an Academy vehicle or arrange for an ambulance. If there is no answer, dial 911 (Raleigh County Emergency Operations Center) and request medical assistance.

Assistance in completing accident health insurance claim forms for Federal students may be obtained from your class coordinator or a responsible staff person on duty after normal duty hours.

You play an important part in accident prevention at the Academy. Should you see an actual or potential safety hazard, please report it to an instructor, class coordinator, or any Academy staff person.

Pets of any kind are prohibited on all Academy grounds, except for certified service animals accompanying people with impairments.

## **Mail**

You can send or receive mail (Monday through Friday) at the Residence Hall registration desk. Our mailing address is:

National Mine Health and Safety Academy  
1301 Airport Road  
Beaver, WV 25813-9426

## **Security**

Upon your arrival at the Academy you will need to stop at the main gate. Uniformed security personnel are on duty at all times. Personal photo identification must be presented at the entry gates, and be displayed and worn while at the Academy. Additionally, security guards will issue you a color coded parking permit. Display this card on your vehicle dashboard and park in the area designated on the permit.



## Fees and Billing

***All Academy fees are reviewed periodically and subject to change.***

### Tuition

The Academy will charge tuition fees to all persons attending Academy courses, except employees of Federal, State, or local governments, persons attending the Academy under a program supported through an MSHA State grant, and persons performing a direct service.

When attending a scheduled course as a stand-alone participant, the tuition is \$94.00 for a full day and \$47.00 for a half day. When requesting a course listed in this catalog for a group, the tuition is \$400 for a full day or \$200 for a half day (minimum and maximum student numbers may be required). If a course is requested to be held on site rather than the Academy, the tuition fee is \$400 per full day or \$200 for a half day, plus travel reimbursement for Academy instructor(s).

The tuition amount is due on arrival by credit card or check payable to MSHA Finance. We regret that **we cannot accept cash**. Billing is possible with a written request to the Academy's Student Services Branch two weeks in advance. If tuition is submitted in advance, written notification of withdrawal to the Student Services Branch is required to process a full refund.

### Lodging

All persons in residence at the Academy, except MSHA personnel, other persons performing a direct service for MSHA, and persons attending a program supported through an MSHA State Grant, are charged for lodging. Lodging is only permitted for MSHA employees who are attending a course, event or on official business.

The lodging fee is \$45.00 per day for an individual and is due on arrival by credit card or check payable to MSHA Finance. We regret that **we cannot accept cash**. Billing is possible with a written request to the Student Services Branch.

Persons staying at the Academy may have their spouses and immediate family as guests provided all appropriate fees are paid on arrival. The fee for spouses and children 18 years of age and older is \$15.00. Children under the age of 18 are free and must be accompanied by an adult at all times. Advance reservations are required.

If you have special needs, please contact Student Services before your arrival.

## **Meals**

The Academy's full service cafeteria offers a selection of freshly prepared entrees, made-to-order sandwiches, soups, a salad bar, desserts, and a full range of beverages. Heart-healthy and vegetarian selections are available. Food service personnel can assist anyone who has special dietary needs.

All MSHA employees receive a meal card at check-in to be presented to the cashier at each meal. Non-MSHA persons who are in residence must pay for their meals using cash or credit card.

The cafeteria is open weekdays for breakfast from 6:15 a.m. to 8:00 a.m. and lunch from 11:30 a.m. to 1:00 p.m. It may occasionally be open for breakfast and lunch on weekends with weekend service hours. The cafeteria has optional hours if opening for dinner meal service.

## Travel to the Academy

Located on a plateau in southern West Virginia, the Academy blends into its Appalachian mountain setting. Scenic vistas and wildlife greet travelers to the Academy, and students experience a restful environment.

Several travel options are available:

### By Air

**Beckley, West Virginia** – The Raleigh County Memorial Airport is located 1 mile from the Academy.

**Charleston, West Virginia** – The Yeager Airport is located 65 miles north of the Academy. Rental cars are available.

**Lewisburg, West Virginia** – The Greenbrier Valley Airport is located 47 miles east of the Academy. Rental cars, taxis, and limousines are available.

### By Train

**AMTRAK** provides tri-weekly service to and from Prince, West Virginia – located 16 miles from the Academy. Taxi service meets all trains.

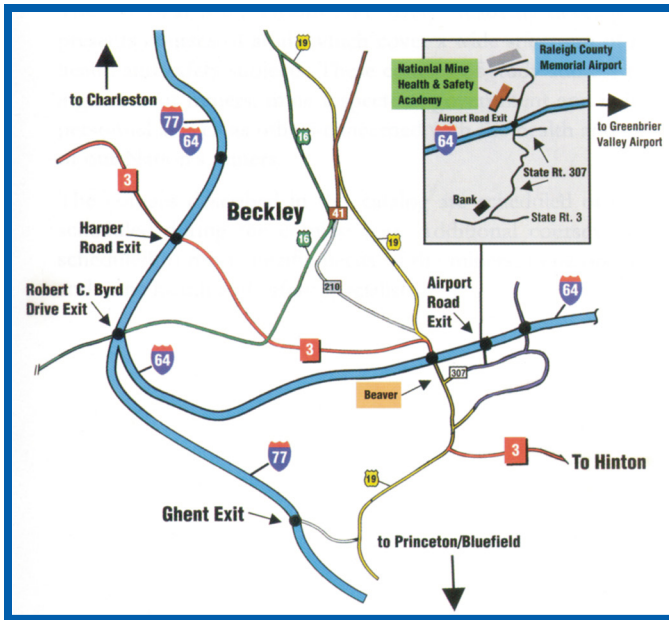
### By Bus

Daily **Greyhound** service is available to and from Beckley – located 8 miles from the Academy in downtown Beckley. Taxi service is available.

### By Car

See **Route Map** to the Academy on page 12.

## Route Map to the Academy



### Arriving from the NORTH

- » When using U.S. 19 South, go to and follow I-77 South, exit at I-64 East
- » Follow I-64 to EXIT 125B, Airport Road
- » Academy is 1 mile on left

### Arriving from the EAST

- » When using I-64 West, use Exit 125, Beaver/Airport Road
- » Turn RIGHT at bottom of ramp
- » Academy is 1 mile on left

### Arriving from the SOUTH

- » When using I-77 North, exit and follow I-64 East
- » Use EXIT 125B, Airport Road
- » Academy is 1 mile on left

### Arriving from the WEST

- » When using I-64 East, use Exit 125B, Airport Road
- » Academy is 1 mile on left

## Training Courses

The National Mine Health and Safety Academy develops and presents courses of study which cover a wide spectrum of mine health and safety subjects. These courses of study address training needs of miners, mine safety and health inspectors, government and industry personnel, and others concerned with the health and safety of our Nation's miners.

The courses described in this catalog are scheduled or can be scheduled during the coming year. Additional courses can be scheduled to meet specific needs of miners, mine operators, and mine health and safety specialists.

Please contact Student Services at (304) 256-3252 if you are interested in attending any course listed as "Scheduled Upon Request." A list of students requesting the course will be maintained by that office until a sufficient interest is received. All students will then be notified and a date will be established to hold the training.

Courses can be scheduled for on-site training  
or can be held at the National Mine Academy.

When scheduling a course, the length of the training  
can be modified to suit individual needs.



## **ACCIDENT PREVENTION TECHNIQUES**

[SF601G]

This course is designed for safety managers/directors, mine managers, or anyone in the mining industry involved in safety management. Several proven accident reduction techniques are covered during the three-day class.

The course begins with a discussion on the principle of multiple causation and the importance of identifying the significant contributing factors in most mining accidents. Accidents/ incidents are divided into the three levels of causation with examples of each level discussed. Discussions focus on the indirect level of causation through a technique of identifying performance problems as either skill or motivational. Unsafe conditions and unsafe work practices are addressed through job safety analysis and job observation. Stress, safety communications, and effective safety talks will be covered.

The class concludes with a health and safety survey which can identify the strengths and weaknesses of a company's health and safety program.

### **Contents:**

- ◆ Accident/Incident Analysis
- ◆ Analyzing Performance Problems
- ◆ Safety Communications/Promotion
- ◆ Developing Effective Safety Talks
- ◆ Job Safety Analysis
- ◆ Job Observation
- ◆ Accident Investigation

**Technical Coordinator: Joe Mackowiak**

**Course Length: 3 days**

***Scheduled upon request***

## **ANNUAL RETRAINING FOR IMPOUNDMENT QUALIFICATION**

[IM602C]

This course provides the annual retraining requirements for qualified impoundment mine safety and health inspectors. Impoundment mine safety and health inspectors are required to receive annual retraining in accordance with the requirements specified in the Code of Federal Regulations [30 CFR 77.107-1(b)].

**Please Note: MSHA Qualification and Certification no longer accepts Social Security Numbers on the application form that you must fill out in order to receive your qualification for impoundment inspection card after successful completion of the course. You will need an MSHA Individual Identification Number, available by applying online at:**

**<http://www.msha.gov/forms/elawsforms/5000-46.htm>**

### **Contents:**

- ◆ Reviews of Proper Inspection Procedures
- ◆ Signs of Impoundment Stress
- ◆ Instrumentation Monitoring
- ◆ Construction Monitoring
- ◆ Emergency Action Planning
- ◆ Foundation Analysis
- ◆ Geotechnical Investigations
- ◆ Breakthrough Potential Analysis

**Technical Coordinator: Jared Adkins**  
**Course Length: 4 hours**

**Dates: November 17, 2020, May 18, 2021**  
**August 10, 2021**

***Scheduled upon request***



## **ATMOSPHERIC MONITORING SYSTEM (AMS) WITH EMPHASIS ON FIRE PROTECTION**

[EL600G]

This course is designed to familiarize the student with the Safety Standards which apply to the Automatic Fire Sensor and Warning Device Systems also known as an Atmospheric Monitoring System, covered under 30 CFR 75.1103 and 30 CFR 75.351, and changes made under the Mine Improvement and New Emergency Response Act of 2006 (MINER Act). A hands-on session will be held at the Mine Simulation Lab to give the student a practical understanding of the system.

### **Contents:**

- ◆ MSHA Handbook on AMS Inspection Procedures, Provided by the Instructor
- ◆ Installation and Calibration Requirements
- ◆ An In-depth Understanding of 30 CFR Application
- ◆ Hands-on Session in the Mine Simulation Lab
- ◆ PowerPoint Presentation on the Aracoma Disaster and Changes Made in Fire Prevention Since 2006.

**Technical Coordinators: Cliff Adkins  
Quentin Blair**

**Course Length: 1 day**

***Scheduled upon request***

## **BLASTING SEMINAR**

[EX524G]

This seminar is designed for company managers, blasting engineers, blasters, state and Federal mine safety and health inspectors (coal and metal/nonmetal), and others involved with the planning, design, and use of explosives in the mining industry. The most recent blasting techniques, trends, and developments will be discussed. Participants will have the opportunity to share ideas in small group sessions.

### **Contents:**

- ◆ Vibration Analysis/Seismographs/Efficient Blasting Techniques
- ◆ Storage of Explosives
- ◆ Handling and Use of Explosives
- ◆ Silica Dust and Toxic Gas Hazards in Blasting
- ◆ Blasting Agents and Emulsions

**Technical Coordinator: Jared Adkins**

**Course Length: 2 days**

**Dates: August 2021 (Tentative)**

## **MSHA ELECTRICAL SPECIALISTS TRAINING**

**[EL41JM]**

This course is designed for MSHA coal and metal/nonmetal Electrical Specialists to enhance their training and inspection skills. The course is customized annually to ensure inspectors are up-to-date on new policy and procedures. Classes covered normally are: Accident Review, Electrical Inspection Procedures, the new Proximity Safety Devices, and any current changes in the Electrical Field and Modifications.

**Technical Coordinators: Cliff Adkins and HQ Staff**

**Course Length: 3 Days**

**Dates: April 13 - 15, 2021**

## **COAL MINE DUST PERSONAL SAMPLING UNIT (CMDPSU) (GRAVIMETRIC/ELF PUMP) INITIAL MAINTENANCE AND CALIBRATION CERTIFICATION**

[IHG613]

This course provides the initial training for personnel who are required to calibrate and maintain a CMDPSU used to collect coal mine dust samples. Successful completion of this course certifies the participant to calibrate and maintain the CMDPSU under the Code of Federal Regulations (30 CFR Parts 70/71/90).

### **Contents:**

Instruction in the Regulations Governing the Coal Mine Operator's Respirable Dust Sampling Program Using a CMDPSU Including:

- ◆ Responsibilities of the Certified Person for Maintenance and Calibration
- ◆ Properties of the Approved Sampling Unit
- ◆ Hands-on Instructions:
  - > Pump Calibration Procedures
  - > Maintenance Requirements
  - > Sampling Unit Inspection
  - > Pre-Shift Checks of Approved Sampling Unit

**Technical Coordinators: Donald Booth  
Ronald Barber**

**Course Length: 8 hours**

***Scheduled upon request***

**COAL MINE DUST PERSONAL SAMPLING UNIT (CMDPSU)  
(GRAVIMETRIC/ELF PUMP) INITIAL SAMPLING  
CERTIFICATION**  
[IHG612]

This course provides the initial training for personnel who are required to sample with a CMDPSU to collect coal mine dust samples. Successful completion of this course certifies the participant to collect coal dust samples under the Code of Federal Regulations (30 CFR Parts 70/71/90).

**Contents:**

Instruction in the Regulations Governing the Coal Mine Operator's Respirable Dust Sampling Program Including:

- ◆ Responsibilities of the Certified Sampler
- ◆ Respirable Dust Sampling Procedures using a CMDPSU
- ◆ Approved Sampling Units
- ◆ Hands-on Instructions:
  - > Inspection
  - > Use

**Technical Coordinators: Donald Booth  
Ronald Barber**  
**Course Length: 8 hours**

**Scheduled upon request**

**COAL MINE DUST PERSONAL SAMPLING UNIT (CMDPSU)  
MAINTENANCE AND CALIBRATION RECERTIFICATION  
TEST  
[IHG603]**

The test is meant for persons who have a current certification for the Coal Mine Dust Personal Sampling Unit Maintenance and Calibration (gravimetric maintenance and calibration). To maintain certification, a person must pass the MSHA examination demonstrating competency in maintenance and calibration procedures every three years. If your certification has expired you must complete the applicable MSHA course of instruction and pass the MSHA examination demonstrating competency in maintenance and calibration procedures.

**Technical Coordinators: Donald Booth  
Ronald Barber  
Course Length: 8 hours**

***Scheduled upon request / Testing Fee - \$15***

**COAL MINE DUST PERSONAL SAMPLING UNIT (CMDPSU)  
SAMPLING RECERTIFICATION TEST**  
[IHG602]

The test is meant for persons who have a current certification for the Coal Mine Dust Personal Sampling Unit (gravimetric sampling) (ELF pump). To maintain certification, a person must pass the MSHA examination demonstrating competency in sampling procedures every three years. If your certification has expired, you must complete the applicable MSHA course of instruction and pass the MSHA examination demonstrating competency in sampling procedures.

**Technical Coordinators: Donald Booth  
Ronald Barber**  
**Course Length: 8 hours**

***Scheduled upon request / Testing Fee - \$15***

# **CONTINUOUS PERSONAL DUST MONITOR (CPDM) INITIAL MAINTENANCE AND CALIBRATION CERTIFICATION**

[IH409G]

This course provides the initial training for personnel who are required to calibrate and maintain a CPDM used to collect coal mine dust samples.

Successful completion of this course certifies the participant to calibrate and maintain the CPDM under the Code of Federal Regulations (30 CFR Parts 70/71/90).

## **Contents:**

Instruction in the Regulations Governing the Coal Mine Operator's Respirable Dust Sampling Program using a CPDM Including:

- ◆ Responsibilities of the Certified Person for Maintenance and Calibration
- ◆ Properties of the Approved Sampling Unit

## **Hands-on Instructions:**

- ◆ Pump Calibration Procedures
- ◆ Maintenance Requirements
- ◆ Sampling Unit Inspection
- ◆ Pre-Shift Checks of Approved Sampling Unit

**Technical Coordinators: Donald Booth  
Ronald Barber**

**Course Length: 8 hours**



**CONTINUOUS PERSONAL DUST MONITOR (CPDM)  
MAINTENANCE AND CALIBRATION RECERTIFICATION  
TEST**

**[IHG608]**

The test is meant for persons who have a current certification for the Continuous Personal Dust Monitor (CPDM) Maintenance and Calibration. To maintain certification, a person must pass the MSHA examination demonstrating competency in sampling procedures every three years. If your certification has expired, you must complete the applicable MSHA course of instruction and pass the MSHA examination demonstrating competency in sampling procedures.

**Technical Coordinators: Donald Booth  
Ronald Barber**

**Course Length: 8 hours**

***Scheduled upon request with a maximum of 18  
Testing Fee - \$15***

## **CONTINUOUS PERSONAL DUST MONITOR (CPDM) INITIAL SAMPLING CERTIFICATION [IH407G]**

This course provides the initial training for personnel who are required to sample with a CPDM to collect coal mine dust samples.

Successful completion of this course certifies the participant to calibrate and maintain the CPDM under the Code of Federal Regulations (30 CFR Parts 70/71/90).

### **Contents:**

Instruction in the Regulations Governing the Coal Mine Operator's Respirable Dust Sampling Program Including:

- ◆ Responsibilities of the Certified Sampler
- ◆ Respirable Dust Sampling Procedures Using a CPDM
- ◆ Approved Sampling Units

### **Hands-on Instructions:**

- ◆ Inspection
- ◆ Use

**Technical Coordinators: Donald Booth  
Ronald Barber**

**Course Length: 8 hours**

***Scheduled upon request with a maximum of 18***

## **CONTINUOUS PERSONAL DUST MONITOR (CPDM) SAMPLING RECERTIFICATION TEST**

[IHG600]

The test is meant for persons who have a current certification for the Continuous Personal Dust Monitor (CPDM). To maintain certification, a person must pass the MSHA examination demonstrating competency in sampling procedures every three years. If your certification has expired, you must complete the applicable MSHA course of instruction and pass the MSHA examination demonstrating competency in sampling procedures.

**Technical Coordinators: Donald Booth  
Ronald Barber**  
**Course Length: 8 hours**

***Scheduled upon request / Testing Fee - \$15***

## **ELECTRICAL HAZARDS**

[EL301M]

This course is designed to provide practical methods and techniques to identify electrical hazards and the appropriate enforcement actions to be taken. This course is for MSHA metal/nonmetal inspection personnel with little or no electrical expertise.

### **Contents:**

- ◆ Basic Electrical Theory
- ◆ Basic Circuitry
- ◆ Grounding
- ◆ Power Distribution Systems
- ◆ Inspection of Electrical Equipment
- ◆ Regulations and Policies
- ◆ Hazard Recognition
- ◆ Citations and Orders
- ◆ Personal Safety

**NOTE: This course is not for Electrical Specialists.**

**Technical Coordinators: Cliff Adkins  
Quentin Blair**

**Course Length: 3 days**

***Scheduled upon request***

## **ELECTRICAL SAFETY FOR COAL MINERS**

**[EL707C]**

This course is designed to provide practical methods and techniques to identify electrical hazards and the appropriate enforcement actions to be taken. This course is for MSHA coal inspection personnel with limited or no electrical expertise.

### **Contents:**

- ◆ Basic Electrical Theory
- ◆ Basic Circuitry
- ◆ Hazard Recognition
- ◆ Grounding
- ◆ Power Distribution Systems
- ◆ Regulations and Policies
- ◆ Personal Safety
- ◆ Citations and Orders
- ◆ Inspection of Electrical Equipment
- ◆ Permissibility

**NOTE: This course is not intended for Electrical Specialists.**

**Technical Coordinators: Cliff Adkins  
Quentin Blair**

**Course Length: 3 days**

***Scheduled upon request***

## **ELECTRICAL SAFETY FOR METAL/NONMETAL MINERS**

**[EL601M]**

This course is designed to provide practical methods and techniques to identify electrical hazards and the appropriate enforcement actions to take to correct them. This course is for metal/nonmetal industry personnel with limited or no electrical expertise.

### **Contents:**

- ◆ Grounding
- ◆ Power Distribution Systems
- ◆ Inspection of Electrical Equipment
- ◆ Regulations and Policies
- ◆ Hazard Recognition
- ◆ Personal Safety

***NOTE: This course is not intended for Electrical Specialists.***

**Technical Coordinators: Cliff Adkins  
Quentin Blair**

**Course Length: 2 days**

***Scheduled upon request***

## **FIRST AID/CPR/AED (AMERICAN RED CROSS)**

[SF700G]

The purpose of the American Red Cross First Aid/CPR/AED program for the lay responder is to provide participants with the knowledge and skills necessary to help sustain life and minimize the consequences of injury or sudden illness until advanced medical help arrives. This program offers a choice of First Aid, CPR, and AED components and injury-control modules to meet the various training needs of those in workplaces, schools, or community settings.

Expiration: 2 Years

**Technical Coordinators: Joe Mackowiak  
Teresa Reynolds**

**Course Length: 1 day**

**Tuition: \$94 per person**

***Scheduled upon request***

## **GROUND CONTROL HAZARDS**

[RC301M]

This course will focus on the Code of Federal Regulations (30 CFR) requirements related to ground control at surface and underground metal and nonmetal mines. The course provides techniques for the recognition and correction of ground control hazards.

### **Contents:**

- ◆ Highwalls
- ◆ Stockpiles
- ◆ Basic Geology
- ◆ Rock Fixtures
- ◆ Surface Structures
- ◆ Underground Support
- ◆ Hazard Recognition
- ◆ Compliance Determination

**Technical Coordinators: Jared Adkins  
Vince Nicolau**

**Course Length: 3 days**

***Scheduled upon request***



## **HAULAGE (SURFACE) (MNM)**

[HL301M]

Haulage accidents have been one of the leading causes of fatal accidents for several years at our Nation's surface mines. This course teaches how to recognize the hazards that may exist in surface haulage.

### **Contents:**

- ◆ Compliance Determination of 30 CFR Parts 56/57.9000 and 56/57.14000
- ◆ Inspection Procedures for Surface Mining Equipment
- ◆ Use of Signs and Traffic Control on Mine Property
- ◆ Haul Road Design
- ◆ Brake Systems
- ◆ New Technology (Video Cameras)
- ◆ Rollover Protective Structures (ROPS)
- ◆ Falling Object Protective Structures (FOPS)
- ◆ Tire and Rim Safety
- ◆ Overview of Fatal Accidents

**Technical Coordinators: Vince Nicolau  
Jared Adkins**

**Course Length: 3 days**

***Scheduled upon request***

## **HAULAGE (SURFACE) (COAL)**

[HL301C]

Haulage accidents have been one of the highest categories of fatal accidents for several years at our Nation's surface mines. This course teaches the recognition of hazards that may exist in surface haulage.

### **Contents:**

- ◆ Compliance Determination of 30 CFR Parts 77.400 and 77.1600
- ◆ Inspection Procedures for Surface Mining Equipment
- ◆ Use of Signs and Traffic Control on Mine Property
- ◆ Haul Road Design
- ◆ Brake Systems
- ◆ New Technology (Video Cameras)
- ◆ Rollover Protective Structures (ROPS)
- ◆ Falling Object Protective Structures (FOPS)
- ◆ Tire and Rim Safety
- ◆ Overview of Fatal Accidents

**Technical Coordinators: Vince Nicolau  
Jared Adkins**

**Course Length: 3 days**

***Scheduled upon request***

## **HAZARD COMMUNICATION (HAZCOM)**

[IH616G]

This course is designed to provide operators with information necessary to develop an effective HazCom program. It will review the requirements of 30 CFR Part 47, including identification of chemicals at the mine site, determining which chemicals are hazardous, establishing a HazCom Program, and informing miners about chemical hazards and appropriate protection measures.

### **Contents:**

- ◆ Purpose and Scope of the HazCom Standard
- ◆ Operators and Chemicals Covered
- ◆ Identification of Hazardous Chemicals
- ◆ Requirements for a HazCom Program
- ◆ Container Labels and Other Forms of Warning
- ◆ Material Safety Data Sheet (MSDS) Requirements
- ◆ HazCom Training Requirements
- ◆ Availability of HazCom Information
- ◆ Trade Secret Provisions
- ◆ Exemptions

**Technical Coordinators: Donald Booth  
Ron Barber**

**Course Length: 1 day**

***Scheduled upon request***

**MSHA DAM SAFETY SPECIALIST TRAINING  
JOURNEYMAN  
[IM01JM]**

This course is designed for MSHA Impoundment Specialists to enhance their training and inspection skills. The course is customized annually to ensure inspectors are up-to-date on new policy and procedures.

**Technical Coordinator: Jared Adkins  
Course Length: 3 days**

**Dates: May 11 - 13, 2021**

## **INDUSTRIAL HYGIENE**

[IH315C]

This course will enable mine safety and health inspectors to recognize and effectively assess health hazards, other than dust and noise, in coal mines and related areas. Laboratory exercises will include sampling procedures and techniques for more common health hazards that may be encountered during inspections. Other health hazard sampling procedures and techniques as well as health effects – respiratory, dermatological, carcinogenic – will be discussed.

### **Contents:**

- ◆ Industrial Hygiene Terminology
- ◆ Toxicology
- ◆ Solvents
- ◆ Asbestos
- ◆ Radiation (Gamma, Ultraviolet)
- ◆ Sampling Methods
- ◆ Methods of Control
- ◆ Contaminants Detected at Mine Sites

**Technical Coordinator: Donald Booth**

**Course Length: 3 days**

***Scheduled upon request***

## INDUSTRIAL HYGIENE: SAMPLING FOR RESPIRABLE SILICA DUST AND NOISE

[IH621M]

*(offered on site only)*

This class, developed in cooperation with the National Stone, Sand and Gravel Association, **is to be scheduled at your worksite**. It involves two days of classroom work and a full day of on-site sampling for silica and noise. It prepares miners and mine operators to conduct ongoing sampling. Results of noise sampling are available immediately; dust samples require analysis in the laboratory, and the cost of analysis is picked up by the mine operator.

### Contents:

- ◆ Hazards of Silica and Noise
- ◆ Introduction to Industrial Hygiene
- ◆ Sampling Equipment and Techniques Laboratory
- ◆ Record Keeping
- ◆ Calculations
- ◆ Controls

**Technical Coordinator: Donald Booth**

**Course Length: 3 days**

***Scheduled upon request with a minimum of 10 students and a maximum of 15.***

## **INSTRUCTOR TRAINING WORKSHOP (PART 48)**

**[GS643G]**

This course is intended to improve the instructional skills, abilities, and knowledge of mine trainers. Participants will be required to select, develop, and present a 15-minute training segment on a health or safety topic in 30 CFR Part 48.

Approval as a Part 48 instructor is a two-part process. (1) You must demonstrate that you have knowledge of the subjects that you will be teaching. This is generally accomplished by submitting an application to your local MSHA District Manager showing your mining experience and education. (2) You must demonstrate that you have the ability to teach. Successful completion of this course will assist you in meeting this requirement. There are no prerequisites for this course. Mining experience is helpful.

### **Contents:**

- ◆ Principles of Adult Instruction
- ◆ Developing Objectives and Developing Criterion Test Items
- ◆ Outlining the Training Content
- ◆ Determining the Instructional Methods
- ◆ Developing and Using Training Aids
- ◆ Developing a Lesson Plan
- ◆ Using Facilitation Skills
- ◆ Part 48 Requirements

**Technical Coordinator: Teresa Reynolds**

**Course Length: 3 days**

**Dates: March 2 - 4, 2021, May 25 - 27, 2021,  
July 27 - 29, 2021, October 5 - 7, 2021**

## **INTRODUCTION TO MINING**

[MS701G]

The mining industry fulfills the important function of providing society's raw materials. Increasingly, mining has become more complex, due to rapid technological changes and comprehensive regulations. This complexity coupled with the industry's rich and traditional use of unique terminology can make understanding mining difficult for persons unfamiliar with it. This course introduces participants to the broad scope of mining, and is for those with little or no mining knowledge. It will provide participants with a working understanding of the various aspects of the industry.

### **Contents:**

- ◆ Mining Terminology
- ◆ Mineral Exploration and Geology
- ◆ Description of the Different Mining Methods
- ◆ Coal Preparation and Mineral Processing

### **Health and Safety Regulations including:**

- ◆ Ground/Roof Control
- ◆ Ventilation and Dust Control
- ◆ Haulage and Hoisting
- ◆ Personal Protective Equipment
- ◆ Mapping
- ◆ Mine Examinations
- ◆ Electricity
- ◆ Explosives
- ◆ Industrial Hygiene

**Technical Coordinators: Chip Clay  
Nathan Neely**

**Course Length: 2 days**

**Dates: July 20 - 21, 2021**

***Scheduled upon request***



## **LAW/REGULATION/POLICY, CITATION/ ORDER WRITING, INSPECTION PROCEDURES**

**[LP710G]**

This course is designed for anyone in the mining industry to gain a better understanding of enforcement procedures used to protect the health and safety of all miners. The course reviews handbooks, policy, and procedures used to enforce the Mine Acts (1977/2006) and 30 CFR (Code of Federal Regulations.) Each course will be designed for either coal or metal/nonmetal. Classroom activities and discussions will blend in with researching materials covered. A copy of the combined Mine Acts, 30 CFR, and Program Policy will be provided.

### **Contents:**

- ◆ Pre-Inspection Conference
- ◆ Inspection
- ◆ Notetaking
- ◆ Pictures
- ◆ Discussion of Violations at Issuance
- ◆ Close-Out Conference
- ◆ Determining Root Cause
- ◆ Research of Regulations/Policy/Procedures

**Technical Coordinators: Joe Mackowiak  
Brandon Ellison**

**Course Length: 3 days**

***Scheduled upon request***

## **MICROSOFT® EXCEL 2016 – ADVANCED**

**[CT702G]**

This course requires a prior knowledge of at least the Basic Excel course and includes hands-on work in the Computer Laboratory.

### **Covers the following more advanced Excel topics:**

- ◆ Work With Multiple Worksheet and Workbooks
- ◆ Use Lookup Functions and Formula Auditing
- ◆ Share and Protect Workbooks
- ◆ Automate Workbook Functionality
- ◆ Create Sparklines and Map Data
- ◆ Forecast Data

**Technical Coordinators: Teresa Reynolds  
Vince Nicolau**

**Course Length: 2 days**

***Scheduled upon request***

## **MICROSOFT® EXCEL 2016 – BASIC**

[CT721G]

Microsoft® Excel 2016 is a spreadsheet program that can be used to organize, analyze and attractively present data, such as a budget or sales report. This course requires a prior knowledge of computers. Classroom activities include hands-on work in the Computer Laboratory.

### **Contents:**

- ◆ Excel Basics
- ◆ Enter and Edit Data
- ◆ Perform Calculations
- ◆ Modify a Worksheet
- ◆ Format a Worksheet
- ◆ Print Workbooks
- ◆ Manage Workbooks

**Technical Coordinators: Teresa Reynolds  
Vince Nicolau**

**Course Length: 2 days**

***Scheduled upon request***

## **MICROSOFT® EXCEL 2016 – INTERMEDIATE**

**[CT722G]**

Microsoft® Excel 2016 is a spreadsheet program that can be used to organize, analyze and attractively present data, such as a budget or sales report. This course requires a prior knowledge of computers and the Basic Excel course. Classroom activities include hands-on work in the Computer Laboratory.

### **Contents:**

- ◆ Work With All Functions
- ◆ Work With Lists
- ◆ Analyze Data
- ◆ Visualize Data With Charts
- ◆ Use Pivot Tables and Pivot Charts

**Technical Coordinators: Teresa Reynolds  
Vince Nicolau**

**Course Length: 2 days**

***Scheduled upon request***

## **MICROSOFT® POWERPOINT 2016 – BASIC**

**[CT711G]**

Microsoft® PowerPoint 2016 is a presentation program that allows users to create overhead slides, speaker notes, audience handouts and outlines -- all in a single presentation file. PowerPoint offers powerful tools to help create and organize a presentation step by step. This class includes hands-on work in the Computer Laboratory, and development of a sample presentation.

### **Contents:**

- ◆ Identify the Basic Features and Functions of PowerPoint
- ◆ Create a Presentation Using Suggested Content and a Design Template
- ◆ Browse Through a Presentation
- ◆ Perform Advanced Text Editing Operations
- ◆ Add Graphical Elements to your Presentation
- ◆ Modify Objects in Your Presentation
- ◆ Add Tables and Charts to Your Presentation
- ◆ Rearrange Slides in a Presentation
- ◆ Check Spelling and Presentation Styles
- ◆ View a Presentation
- ◆ Create a Folder to Store a Presentation
- ◆ Prepare to Deliver Your Presentation

**Technical Coordinators: Teresa Reynolds  
Vince Nicolau**

**Course Length: 2 days**

***Scheduled upon request***

## **MICROSOFT® WORD 2016 – ADVANCED**

**[CT707G]**

Microsoft® Word 2016 is a word-processing program that is used to compose and update a wide range of business documents. It offers many desktop-publishing features that let you enhance the appearance of documents. This course requires a prior knowledge of computers. Classroom activities include hands-on work in the Computer Laboratory.

### **Contents:**

- ◆ Use Images in a Document
- ◆ Create Custom Graphic Elements
- ◆ Collaborate on Documents
- ◆ Add Reference Marks and Notes
- ◆ Secure a Document
- ◆ Create and Manipulate Forms
- ◆ Create Macros to Automate Tasks

**Technical Coordinators: Teresa Reynolds  
Vince Nicolau**

**Course Length: 2 days**

***Scheduled upon request***

## **MICROSOFT® WORD 2016 – BASIC**

[CT707G]

Microsoft® Word 2016 is a word-processing program that is used to compose and update a wide range of business documents. It offers many desktop-publishing features that let you enhance the appearance of documents. Word also has the power and flexibility to produce professional documents quickly and easily. Classroom activities include hands-on work in the Computer Laboratory.

### **Contents:**

- ◆ Create a Document
- ◆ Format Text and Paragraphs
- ◆ Use Tools such as Find and Replace, Format Painter, and Styles
- ◆ Enhance Lists by Sorting, Renumbering, and Customizing List Styles
- ◆ Create and Format Tables
- ◆ Insert Graphic Objects into a Document, Including Symbols, Special Characters, Illustrations, Pictures, and Clip Art
- ◆ Format Appearance of a Page Through Borders and Colors, Watermarks, Headers and Footers, and Page Layout
- ◆ Use Word Features to help Identify and Correct Problems with Spelling, Grammar, Readability, and Accessibility

**Technical Coordinators: Teresa Reynolds  
Vince Nicolau**

**Course Length: 2 days**

***Scheduled upon request***

## **MICROSOFT® WORD 2016 – INTERMEDIATE**

**[CT707G]**

Microsoft® Word 2016 is a word-processing program that is used to compose and update a wide range of business documents. It offers many desktop-publishing features that let you enhance the appearance of documents. This course requires a prior knowledge of computers. Classroom activities include hands-on work in the Computer Laboratory.

### **Contents:**

- ◆ Organize Content Using Tables and Charts
- ◆ Customize Formats Using Styles and Themes
- ◆ Insert Content Using Quick Parts
- ◆ Use Templates to Automate Document Formatting
- ◆ Control the Flow of a Document
- ◆ Simplify and Manage Long Documents
- ◆ Use Mail Merge to Create Letters, Envelopes, and Labels

**Technical Coordinators: Teresa Reynolds  
Vince Nicolau**

**Course Length: 2 days**

***Scheduled upon request***



# MINE ACCIDENT INVESTIGATION AND REPORT WRITING

[IV301G] **MSHA PERSONNEL ONLY**

This course is designed for coal, metal/nonmetal, technical support, EPD, and other MSHA individuals involved in accident investigation. The course covers basic guidelines, procedures, and techniques used to investigate and report on accidents and other incidents involving health and safety in the mining industry.

Classroom activities and discussions cover reasons for accident investigations, the investigative process, data collection, accident reconstruction, proper analysis for corrective actions, and completion of investigative reports following relevant MSHA guidelines and policies. At the conclusion of the class, in a practical exercise, students will conduct a simulated accident investigation and prepare a report. **Students should bring their laptop computers or tablet.**

**\*Due to cumulative nature of course material, if a student misses any portion of the class, he/she may be required to return to a subsequent class. Enforcement students must have completed entry-level inspector training at least one year prior to the class date.**

## Contents:

- ◆ Overview of Accident Investigation
- ◆ Pre-Investigation Activities
- ◆ Dealing with Family Members
- ◆ Accident Reconstruction
- ◆ Photography/Sketching
- ◆ Interviewing Techniques
- ◆ Data Collection and Evaluation
- ◆ Developing Conclusions and Corrective Actions
- ◆ Report Writing
- ◆ Determining Root Causes

**Technical Coordinator: David Elkins**

**Course Length: 8 days**

**Dates: January 5-14, 2021, February 2-11, 2021,  
May 11-20, 2021, August 17-26, 2021**

**Maximum of 10 students**

# **MINE ACCIDENT INVESTIGATION TECHNIQUES**

[IV604G]

## **INDUSTRY**

This course is directed towards safety directors, managers, foremen, union safety committee persons, state mine inspectors, or mining industry (metal/nonmetal or coal) individuals involved in accident investigation. Course content covers basic guidelines, procedures, and techniques for the preparation and handling of investigations of accidents and other incidents involving health and safety in the mining industry.

Classroom activities and discussions cover reasons for accident investigations, the investigative process, data collection, accident reconstruction, and proper analysis for corrective actions.

### **Contents:**

- ◆ Brief Review of MSHA's Accident Reporting Requirements
- ◆ Pre-Investigation Activities
- ◆ Accident Investigation Procedures
- ◆ Accident Scene Analysis
- ◆ Photography and Sketching
- ◆ Interviewing Techniques
- ◆ Finding Root Causes of Accidents
- ◆ Developing Corrective Actions

**Technical Coordinator: David Elkins**

**Course Length: 2 days**

***Scheduled upon request with a maximum of 10***

## **MINE CONSTRUCTION, MAINTENANCE, AND REPAIRS SAFETY**

**[MS615G]**

This course is designed for the mining construction industry, related support groups, mining regulatory agencies, and others that are involved with the planning, design, and application of mine construction and maintenance activities.

### **Contents:**

- ◆ Accident Analysis and Prevention
- ◆ Effective Work Area Examinations
- ◆ Mobile Equipment Examinations
- ◆ Fall Prevention
- ◆ Basic Crane Safety
- ◆ Material Storage and Handling
- ◆ Conveyor Belt Safety
- ◆ Confined Space Safety
- ◆ Wire Ropes and Slings
- ◆ Surface Installations

**Technical Coordinator: Vince Nicolau**

**Course Length: 2 days**

***Scheduled upon request***

## **MINE EMERGENCY UNIT JOINT TRAINING**

### **[MEU401]**

This course is designed for MSHA mine rescue personnel who are charged with responding to mine emergencies, such as mine fires, explosions, and inundations. The training strengthens the readiness of team members, sharpens their skills, and tests their knowledge in a series of specialized emergency scenarios. The training also develops team member proficiency using the equipment required and more importantly, acclimates team members to the Self-Contained Breathing Apparatus they will wear during a response through intense simulated mine emergency scenarios.

### **Event Agenda/Outline:**

- ◆ Practices and Procedures
- ◆ Rescue and Recover Strategy
- ◆ Response Briefing
- ◆ Specialized Exercises
- ◆ First Aid/Bench Apparatus/Equipment Preparation

**Technical Coordinator: Tom Morley**  
**Course Length: 24 hours**

**Dates: April 6 - 8, 2021**

## **MINE EMERGENCY UNIT JOINT TRAINING**

**[MEU402]**

This course is designed for MSHA mine rescue personnel who are associated with responding to mine emergencies, such as mine fires, explosions, and inundations. The training strengthens the readiness of team members, sharpens their skills, and tests their knowledge in a series of specialized emergency scenarios that focus on the deployment and function of the state-of-the-art Underground Communication System (UCS). The training also develops team member proficiency using the equipment required and more importantly, acclimates team members to the Self-Contained Breathing Apparatus they will wear during a response through intense simulated mine emergency scenarios, which involve UCS deployment.

### **Event Agenda/Outline:**

- ◆ Practices and Procedures
- ◆ Rescue and Recover Strategy
- ◆ Response Briefing
- ◆ Specialized Exercises
- ◆ Bench Apparatus/Equipment Preparation
- ◆ Underground Communication System Deployment and Function Procedures

**Technical Coordinator: Tom Morley**

**Course Length: 24 hours**

**Dates: October 19 - 21, 2021**

## **MINE EXPLOSION PREVENTION**

[VN701C]

This course will review the causes and prevention of underground bituminous coal mine explosions. Students will learn to identify and address conditions which are known to cause or propagate explosions. Applicable Federal mining laws will be discussed and explained.

### **Content will include but not limited to:**

- ◆ Sources and Control of Coal Dust
- ◆ Accumulation of Combustible Material
- ◆ Rock Dust Application and Sampling

**Technical Coordinator: Jonah Pritt**

**Course Length: 1 day**

***Scheduled upon request***

# **MINE HOIST AND ELEVATOR INSPECTION PROGRAM TRAINING**

[HS606G]

This training module covers the inspection of mine hoist and elevators and the impact of the mine environment on critical hoist and elevator components. An emphasis will be made also on Mechanical Escape Facilities. It will enable the student to perform basic mine hoist and elevator inspections, focusing on critical safety concerns, including those identified in recent mine accidents. The material will be correlated to the applicable sections of 30 CFR, the ASME A17 Elevator Code, and a variety of information pertaining to wire ropes.

During the hands-on time, the student will be taught the proper way to measure a wire rope, when it is required, locations of measurements, and the “out of service” criteria for both wire ropes and their terminations. This course is for MSHA coal and metal/nonmetal mine safety and health inspectors and industry personnel.

## **Contents:**

- ◆ Wire Rope Technology
- ◆ Terminations and Attachments
- ◆ Removal Criteria According to 30 CFR
- ◆ A Review of the ASME A17 Elevator Code
- ◆ Hazard Recognition
- ◆ Inspection Procedure
- ◆ Citation and Order Writing

**Technical Coordinator: Cliff Adkins**

**Course Length: 3 days**

***Scheduled upon request***

## **MINE RESCUE TRAINING**

[ME601G]

This course is designed for mine rescue teams and mining industry personnel who may be associated with responding to mine emergencies, such as mine fires, explosions, and inundations. The major part of the training involves participation in exercises in the Mine Simulation Laboratory.

### **Contents:**

- ◆ Mine Emergency Response Overview
- ◆ Mine Emergency Operations
- ◆ Mine Emergency Personnel
- ◆ Mine Emergency Communications and Decision Making
- ◆ Mine Emergency Practices and Procedures
- ◆ Mine Emergency Rescue and Recovery Strategy
- ◆ Tactical Implementation of Operations

**Technical Coordinators: Nathan Neely  
Mack Wright**

**Course Length: 1 day**

***Scheduled upon request***



## **MINE RESCUE VISIO MAPPING AND MAP SCORING TRAINING**

[ME609G]

This course is for all interested mine rescue team members, mine rescue problem designers, mine rescue map judges, and persons involved in mine accident investigation work. This class will be scaled and tailored to the students' specific needs. We will try to make the class as job related to each group as possible.

### **Contents:**

- ◆ Introduction to Microsoft® Visio and saving the completed map or drawing. This will include downloading templates and stencils from MSHA.GOV and importing stencils.
- ◆ Review of drawing a scaled map or drawing.
- ◆ Review of map symbols (stencils) used for both mine rescue maps and accident investigation drawings.
- ◆ Adding layers within a drawing and assigning objects to a layer.
- ◆ Mapping of items or conditions encountered by a mine rescue or accident investigation team.
- ◆ Introduction into mine rescue contest map scoring protocols and procedures, including the use of scanner for scanning and saving “hand drawn” paper maps.
- ◆ Each student will receive a laminated “Visio quick reference card” to assist them in learning the shortcuts related to Microsoft® Visio.

The Visio Electric Mapping and Map Scoring Class is an eight (8) hour class. Participants may bring their own computers that are equipped with Microsoft® Visio 2010 or 2013 to the training class or computers will be provided by the National Mine Academy.

**Technical Coordinators: Chip Clay  
Nathan Neely**

**Course Length: 1 day**

***Scheduled upon request with a maximum of 6***

## **MINE VENTILATION**

[VN700C]

This course will review the basic principles of underground coal mine ventilation along with applicable Federal mining laws.

### **Content will include but not limited to:**

- ◆ Mine Fans
- ◆ Mine Gases
- ◆ Air Readings
- ◆ Ventilation Plans
- ◆ Mine Maps
- ◆ Bleeders
- ◆ Seals
- ◆ Ventilation Control
- ◆ Face Ventilation
- ◆ Outby Ventilation

**Technical Coordinator: Jonah Pritt**

**Course Length: 2 days**

***Scheduled upon request***

## **MSHA ACCIDENT INVESTIGATION RETRAINING**

[IV782G] *MSHA PERSONNEL ONLY*

This course is intended for MSHA accident investigators who have already completed the 8-day Mine Accident Investigation and Report Writing class (IV301G). This course will refresh and enhance the skills of MSHA accident investigators, and cover recent updates to accident investigation policies and procedures. Specific topics to be covered each year will vary in accordance with the needs of the agency.

**Technical Coordinator: David Elkins**

**Course Length: 3 days**

**Dates: November 2 - 4, 2021**

## **NOISE HAZARDS, REGULATION, AND CONTROL**

**[IH321G]**

This course provides the participant with information on the hazards associated with overexposure to noise. It thoroughly reviews 30 CFR Part 62 and appropriate monitoring and control methods. The course also discusses the elements of an effective hearing conservation program.

### **Contents:**

- ◆ Characteristics of Noise
- ◆ Impact of Noise on Health
- ◆ Noise Monitoring
- ◆ Sound Level Meters
- ◆ Dosimeters
- ◆ Octave Band Analysis
- ◆ Audiometric Examinations
- ◆ Noise Regulation - Compliance Discussion
- ◆ Exposure Levels
- ◆ Monitoring
- ◆ Hearing Conservation Programs
- ◆ Training Requirements
- ◆ Control Methods

**Technical Coordinator: Donald Booth**  
**Course Length: 3 days**

***Scheduled upon request***

## **OFF ROAD TIRE SAFETY**

[HL605C]

This course is designed for the mining, construction, industrial industries, related support groups, mining regulatory agencies, and others that are involved with application of mine construction, maintenance, and inspection of off road tires. Thirty-six miners have lost their lives in the last twenty years due to off road tire ruptures.

### **Contents:**

- ◆ Accident Analysis and Prevention
- ◆ Effective Work Area Examinations
- ◆ Zones of Tires
- ◆ Tread, Crown, Sidewall, Bead Zone Examinations
- ◆ Identification of Common Tire Examinations
- ◆ Method of Examination
- ◆ Damage Zone Examples

**Technical Coordinators: Vince Nicolau  
Jared Adkins**

**Course Length: 6 hours**

***Scheduled upon request***

## **QUALIFICATION FOR IMPOUNDMENT INSPECTION**

### **[IM601C]**

This course provides the initial training for personnel who are required to inspect impoundments. Successful completion of this course qualifies the participant to inspect impoundments as required by the Code of Federal Regulations [30 CFR 77.216-3(g)].

**Please Note: MSHA Qualification and Certification no longer accepts Social Security Numbers on the application form that you must fill out in order to receive your qualification for impoundment inspection card after successful completion of the course. You will need an MSHA Individual Identification Number, available by applying online at:**

**<http://www.msha.gov/forms/elawsforms/5000-46.htm>**

### **Contents:**

Introductory training on:

- ◆ Recognizing Deficiencies and Signs of Distress
- ◆ Failure Modes
- ◆ Foundation Analysis
- ◆ Geotechnical Investigation
- ◆ Breakthrough Potential Analysis
- ◆ Common Instrumentation
- ◆ Facility Configurations
- ◆ Field Hazard Classifications
- ◆ Reporting Requirements
- ◆ Inspection Forms

**Technical Coordinator: Jared Adkins**  
**Course Length: 8 hours**

**Dates: November 19, 2020, May 20, 2021,  
August 12, 2021**

## **ROOF CONTROL SEMINAR**

**[RC501C]**

This seminar is designed for miners, company managers, engineers, trainers, roof bolter machine operators, and for any individual involved in coal mine roof safety. Federal and state enforcement personnel desiring to increase their knowledge of the latest developments in roof and rib control will also find this seminar very beneficial. This seminar will update personnel on new products and methods related to roof stability. It will also include presentations by personnel from the Academy, Technical Support, MSHA headquarters, other government agencies, and industry. All subjects will incorporate safe mining practices which will help reduce roof fall injuries and fatalities. The seminar will discuss new roof control techniques, trends, and developments.

### **Contents:**

- ◆ New Roof Bolting Products
- ◆ Supplemental Supports
- ◆ Roof Control Fatality Trends and Prevention
- ◆ Roof Control Machinery Updates

**Technical Coordinator: TBD**  
**Course Length: 1 day**

**Dates: June 9, 2021**

## **ROOF CONTROL SPECIALISTS TRAINING**

**[RC401C]**

This training will update roof control specialists on new products and methods related to roof stability. It will also include presentations by personnel from Technical Support, MSHA headquarters, and other government agencies. All subjects will incorporate safe mining practices which will help reduce roof fall injuries and fatalities. The training will discuss new roof control techniques, trends, developments, and new policy letters, program information bulletins, and procedure instruction letters related to inspections and the health and safety of the miner.

**Technical Coordinator: TBD**

**Course Length: 3 days**

**Dates: May 4 - 6, 2021**



## **SLOPE AND SHAFT SINKING SAFETY**

[RC310G]

This course will include a description of the most common conventional slope and shaft construction process, the hazards associated with slope and shaft work, and inspection procedures. It will also discuss the hazards associated with hoisting and cover the inspection procedures for wire ropes.

### **Contents:**

- ◆ Slope and Shaft Construction Process
- ◆ Ventilation
- ◆ Ground Control
- ◆ Hoisting
- ◆ Electrical
- ◆ Health
- ◆ Slope and Shaft Sinking Plans
- ◆ Inspection Guidelines
- ◆ Hazard Identification

**Technical Coordinator: Cliff Adkins**

**Course Length: 2 days**

***Scheduled upon request***

## **SPECIAL INVESTIGATORS RECERTIFICATION**

**[IV402G]**

The Special Investigator (SI) specialist training class will provide initial training to ensure the investigator has a thorough understanding of Sections 105(c), 108, 110(c) and 110(d) of the Mine Act. The course will also provide instruction in interview techniques, evidence collection, and various other skills necessary to perform the duties of a Special Investigator. It will include instruction and presentations by TCIO, MSHA Headquarters, agents from the FBI, and other presenters when available.

**Technical Coordinator: Mike Jude**

**Course Length: 3 days**

**Date: TBD**

***Scheduled upon request***

## **SPECIAL INVESTIGATORS TRAINING**

[IV402G]

The Special Investigators (SI) class consists of two modules with Module I focusing on Sections 105(c) and 108 of the Mine Act as well as interview techniques and Module II focusing on Sections 110(c) and 110(d) of the Mine Act as well as evidence collection. This training will ensure the investigator understands the nature of the discrimination provisions of the Mine Act and will be able to define and describe the parameters of the protections afforded to miners, miners' representatives, and applicants for mining positions.

Participants will learn to recognize the components of Section 105(c), and be able to describe the rights provided to miners and the processes under the separate sections of the discrimination law appearing in the Act. The class will examine how to receive and process complaints under Section 105(c) of the Mine Act and present unique issues of case law, i.e., job refusal and temporary reinstatement. They will be able to identify, describe, and define Section 108, the injunctive relief criteria and will understand the extraordinary relief provided in the forms of permanent or temporary injunctions and temporary restraining orders.

Participants will be able to identify, describe, and define the relationships between Section 110 and the other provisions of the Mine Act; will recognize the various parts of Section 110 falling within their investigative authorities; and will be able to identify and describe the principles involved in and related to civil and criminal liabilities under Sections 110(c) and 110(d). Participants will also gain an understanding of Section 111 and Section 428 Black Lung Benefit Act.

**Technical Coordinator: Mike Jude**

**Course Length: 3 days**

**Date: TBD**

***Scheduled upon request***

## **SURFACE FACILITIES AND COAL PREPARATION**

[PP601C]

This course is designed to familiarize the student with equipment and processes used in coal preparation plants; hazards that might exist around preparation plants; and inspection requirements for such plants. This course has been expanded to include structural safety in an effort to eliminate surface structural failures in the mining industry.

### **Contents:**

- ◆ Structural Safety
- ◆ Equipment Guarding
- ◆ Stockpile Safety
- ◆ Delivery Methods to the Plant
- ◆ Crushing, Sizing, and Washing Processes
- ◆ Dewatering and Drying
- ◆ Storage of Raw and Clean Coal
- ◆ Potential Hazards
- ◆ Preparation Plant Inspection

**Technical Coordinators: Jared Adkins  
Vince Nicolau**

**Course Length: 3 days**

***Scheduled upon request***

## **TAILINGS DAM AND WASTE PILE INSPECTION – METAL/NONMETAL [IM301M]**

This course will introduce the student to the general safety considerations for the design, construction, maintenance, and inspection of dams and waste piles.

### **Contents:**

- ◆ Typical Geotechnical Investigations
- ◆ Foundation Analysis
- ◆ Breakthrough Potential Analysis
- ◆ Stability Analysis and Safety Factors
- ◆ Hydrologic and Hydraulic Considerations
- ◆ Construction Monitoring
- ◆ Identification of Deficiencies
- ◆ General Methods of Remediation
- ◆ Applicable Regulations

**Technical Coordinators: Jared Adkins  
Vince Nicolau**  
**Course Length: 3 days**

***Scheduled upon request***

## **TRAM/NATIONAL MINE INSTRUCTORS SEMINAR**

**[GS501G]**

This seminar provides opportunities for health and safety trainers to improve their training programs with new materials and new ideas. The seminar will also include an exhibit of training materials developed by MSHA, state grants recipients, and the mining industry. Small workshops allow participants to interact with workshop leaders and other participants.

### **Contents:**

- ◆ Innovative Instructional Techniques
- ◆ Instructional Technology and Computer Applications
- ◆ Underground Mine Safety (Metal/Nonmetal and Coal Topics)
- ◆ Surface Mine Safety (Metal/Nonmetal and Coal Topics)
- ◆ General Safety
- ◆ Health
- ◆ Ergonomics
- ◆ Supervisory Issues

Another feature of the seminar is the Training Materials Competition. Health and safety training materials entered in the competition will be judged and winners will be announced at the Seminar. All materials entered in the competition will be displayed.

**Technical Coordinator: TBD**  
**Course Length: 2.5 days**

**Dates: October 12 - 14, 2021**

## **UNDERGROUND DIESEL EQUIPMENT/VENTILATION**

[VN321C]

This course provides the participants with techniques to conduct an evaluation of existing underground diesel mining equipment. Basic air sampling principles will be presented. The impact of diesel equipment on the mine ventilation system and the mine ventilation plan will be discussed. The health hazards associated with diesel equipment and diesel fuel will be examined.

Primary emphasis will focus on the Code of Federal Regulations (30 CFR) related to underground mining operations. The class will integrate technology with case studies and basic laboratory work.

### **Contents:**

- ◆ Code of Federal Regulations Review
- ◆ Air Sampling Procedures
- ◆ Introduction to Basic Air Flow Measurement Techniques
- ◆ Equipment
- ◆ Health Hazards
- ◆ Proper Health Sampling Techniques
- ◆ Review of Diesel Technology

**Technical Coordinator: Jonah Pritt**  
**Course Length: 1 day**

***Scheduled upon request***

# **UNDERGROUND VENTILATION FOR METAL AND NONMETAL MINES**

[VN303M]

This course is designed to assist metal/nonmetal miners in the recognition and evaluation of health hazards and effective ventilation methods to eliminate these hazards.

## **Contents:**

- ◆ Airborne Contaminants
- ◆ Sampling and Detecting Devices
- ◆ Hazard Controls
- ◆ Mine Maps
- ◆ Recognition of Areas That May Have Poor Air Quality
- ◆ Measuring Air Quantities
- ◆ Review of Ventilation Regulations

**Technical Coordinators: Jonah Pritt  
Mike Jude**

**Course Length: 2 days**

***Scheduled upon request***



## **VENTILATION SPECIALISTS TRAINING**

**[JM401C]**

This course is designed for MSHA Ventilation Specialists to enhance their training and inspection skills. The course is customized annually to ensure inspectors are up-to-date on new policy and procedures.

**Technical Coordinators: Tech Support Staff  
HQ Staff**

**Course Length: 3 days**

**Dates: March 23 - 25, 2021**

## **WORKPLACE EXAMINATIONS**

[VN702C]

This course is designed for mine examiners. Discussion will focus on what the examiner should be looking for during a workplace examination. Applicable Federal mining laws will be discussed and explained.

### **Content will include but not limited to:**

- ◆ Pre-shift Examinations
- ◆ Supplemental Examinations
- ◆ On-Shift Examinations
- ◆ Weekly Examinations
- ◆ Hazard Identifications

**Technical Coordinators: Jonah Pritt  
Ron Barber**

**Course Length: 1 day**

***Scheduled upon request***

## **MSHA Training**

All newly hired MSHA mine safety and health inspectors receive entry-level training. This training covers technical aspects of mine inspection and additional topics such as effective communications and professionalism.

Entry-level MSHA inspectors will receive six modules of instruction (24 weeks total) at the Academy in conjunction with required web-based training and on-the-job training (OJT) sessions in the field.

This in-depth training is designed specifically for newly hired MSHA inspectors; however, it can be greatly beneficial to industry personnel wishing to gain more knowledge in mine safety training.

MSHA Journeyman Inspectors are required 48 hours of re-training every two years to ensure that they remain up-to-date on current policy and procedure.

### **For more information please contact:**

Cheryl Stevens  
Department of Instructional Services  
National Mine Health and Safety Academy  
1301 Airport Road  
Beaver, West Virginia 25813-9426

TELEPHONE: (304) 256-3236 FAX: (304) 256-3247  
E-MAIL: [stevens.cheryl@dol.gov](mailto:stevens.cheryl@dol.gov)

# NEED MORE INFO? CONTACT:

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FAX: (304) 256-3247  
E-MAIL: [stevens.cheryl@dol.gov](mailto:stevens.cheryl@dol.gov)

## Enrollment Form

Please complete this form and return to:

National Mine Health and Safety Academy  
ATTN: Student Services Branch  
1301 Airport Road  
Beaver, West Virginia 25813-9426  
OR  
FAX: (304) 256-3251

I plan to attend the \_\_\_\_\_  
course on the following dates: \_\_\_\_\_

Arrival Date: \_\_\_\_\_

Departure Date: \_\_\_\_\_

☐ I will    ☐ I will not need lodging on these dates.

**Name:** \_\_\_\_\_  
(LAST) (FIRST) (MIDDLE)

**Title:** \_\_\_\_\_

**Organization:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**City:** \_\_\_\_\_

**State:** \_\_\_\_\_ **Zip Code:** \_\_\_\_\_

**Telephone:** \_\_\_\_\_ **Fax:** \_\_\_\_\_  
(area code) (area code)

**E-mail address:** \_\_\_\_\_

***Confirmation will be emailed or faxed to you.***

Confirmed by: \_\_\_\_\_ Date: \_\_\_\_\_



## Suggestion Form for New Courses

The National Mine Health and Safety Academy is committed to bring you the very best courses, seminars, and materials to meet your needs. To do this we need your help.

Please use the space below to let us know what you would like.

New courses or variations on existing courses:

Seminars: \_\_\_\_\_

\_\_\_\_\_

Materials: \_\_\_\_\_

\_\_\_\_\_

Area of interest: *Check those of interest.*

☐ Coal - Surface

☐ Coal - Underground

☐ Metal/Nonmetal - Surface

☐ Metal/Nonmetal - Underground

☐ Both

Other (specify) \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

Telephone \_\_\_\_\_ Fax: \_\_\_\_\_  
(area code) (area code)

E-mail address: \_\_\_\_\_

Please complete this form and return to:

National Mine Health and Safety Academy  
ATTN: Department of Instructional Services  
1301 Airport Road  
Beaver, West Virginia 25813-9426  
OR  
FAX: (304) 256-3247





## Other Available Catalogs

The Academy also publishes a Catalog of Training Products for the Mining Industry. To obtain a copy of the products catalog, or additional copies of this catalog, please complete this form and return to:

National Mine Health and Safety Academy  
ATTN: Printing and Property Management Branch  
Department of Instructional Materials  
1301 Airport Road  
Beaver, West Virginia 25813-9426  
CALL: (304) 256-3257  
FAX: (304) 256-3368  
E-MAIL: MSHADistributionCenter@dol.gov

**Please indicate the number of catalogs you are requesting:**

(Number)

\_\_\_\_\_ Catalog of Training Products for the Mining Industry

\_\_\_\_\_ Courses for MSHA and the Mining Industry  
(additional copies)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_  
(area code) (area code)

***Please note: Catalogs referred to on this page  
are also available online at [www.msha.gov](http://www.msha.gov)***





**U.S. Department of Labor**

National Mine Health and Safety Academy

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