

# Courses for MSHA and the Mining Industry



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

FY 2013



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

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

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## Welcome

Welcome to the 2013 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 changes constantly and every mine is unique. The mining industry is experiencing a need for new miners to replace the miners who are retiring and also due to the increased use of mining products. The replacements are inexperienced and must be trained prior to their employment. This is why mine safety and health inspections, technical and engineering assistance, and education and training are such 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 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.

## 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

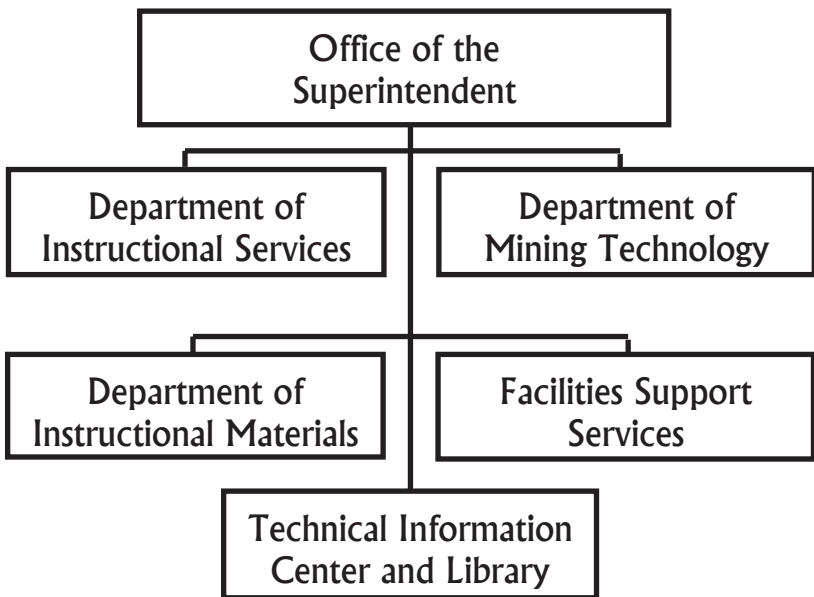
The purpose of the Academy is to design, develop, and conduct instructional programs that will assist in government, industry, and labor efforts to reduce injuries, illnesses, and fatalities in the mineral industries.

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 Organization

The National Mine Health and Safety Academy is supported by the Superintendent of the Academy with the help of five major units:

- ◆ Department of Instructional Services
- ◆ Department of Mining Technology
- ◆ Department of Instructional Materials
- ◆ Facilities Support Services
- ◆ Technical Information Center and Library



The **Office of the Superintendent** is responsible for the immediate management and direction of the Academy and for coordination of all training programs.

The **Department of Instructional Services** manages the work activities and resources assigned to the Department in the following areas: (1) developing and teaching courses for MSHA and the mining industry in safety management, accident investigation and report writing, citations and orders, and inspection automation, (2) planning, scheduling, and evaluating

instructional programs, workshops, conferences, and seminars for MSHA and the mining industry, (3) developing and teaching computer courses for MSHA mine inspection and administrative and clerical personnel, (4) scheduling MSHA entry level programs and preparing records of student progress, (5) converting existing courses and working with instructors to develop new courses that can be presented online and in other distance formats.

The **Department of Mining Technology** manages the work activities and resources assigned to the Department in the following areas: (1) developing and teaching courses for MSHA and the mining industry in technical mine safety and health, (2) planning, scheduling, and evaluating instructional programs, workshops, conferences, and seminars for MSHA and the mining industry, (3) planning, scheduling, and coordinating the activities conducted in the Mine Simulation Laboratory, (4) overseeing the on-the-job training program for entry level mine inspectors.

The **Department of Instructional Materials** manages the work activities and resources assigned to the Department in the following areas: (1) developing training and informational publications for MSHA and the mining industry, (2) developing and teaching courses for MSHA and the mining industry, (3) developing audiovisual materials to support MSHA and industry training, (4) producing graphics materials in support of Agency initiatives and training, and (5) printing, storing, and distributing Academy training products and MSHA informational products.

**Facilities Support Services** aids all Academy programs through coordination of student services, scheduling, recordkeeping, physical plant maintenance, budget and procurement, wellness, contract administration, food service, security, housekeeping, and student registration.

The **Technical Information Center and Library** maintains books, journals, newspapers, technical reports, audiovisual materials, and other information related to mine health and safety. The library gives Academy students and clients immediate and easy access to information sources that can improve the health and safety of miners worldwide.

## The Academy Campus

The Academy complex includes classrooms and laboratories to accommodate 600 students and the Residence Hall has 174 lodging rooms.

The **Classroom Building** includes 18 classrooms and 10 laboratories.

The **Distance Learning Lab** will provide remote training at sites throughout the nation.

The **Technical Information Center and Library** is in the Classroom Building.

The **Administration Building** contains faculty and staff offices, the auditorium, cafeteria, and student store.

The **Mine Machinery Laboratory** gives students an opportunity for hands-on health and safety training on different mining and electrical systems.

The **Mine Simulation Laboratory** is an aboveground simulated mine. Here, students can learn about mine ventilation, mine rescue, mine emergency preparedness, and firefighting.

The **Mine Emergency Building** is adjacent to the Mine Simulation Laboratory. It houses mine emergency vehicles and a mine rescue station for MSHA's Mine Emergency Units.

The **Gymnasium** is available for wellness training and leisure time activities. Other wellness facilities at the Academy include tennis courts, a racquetball court, swimming pool, jogging trail, and athletic field.

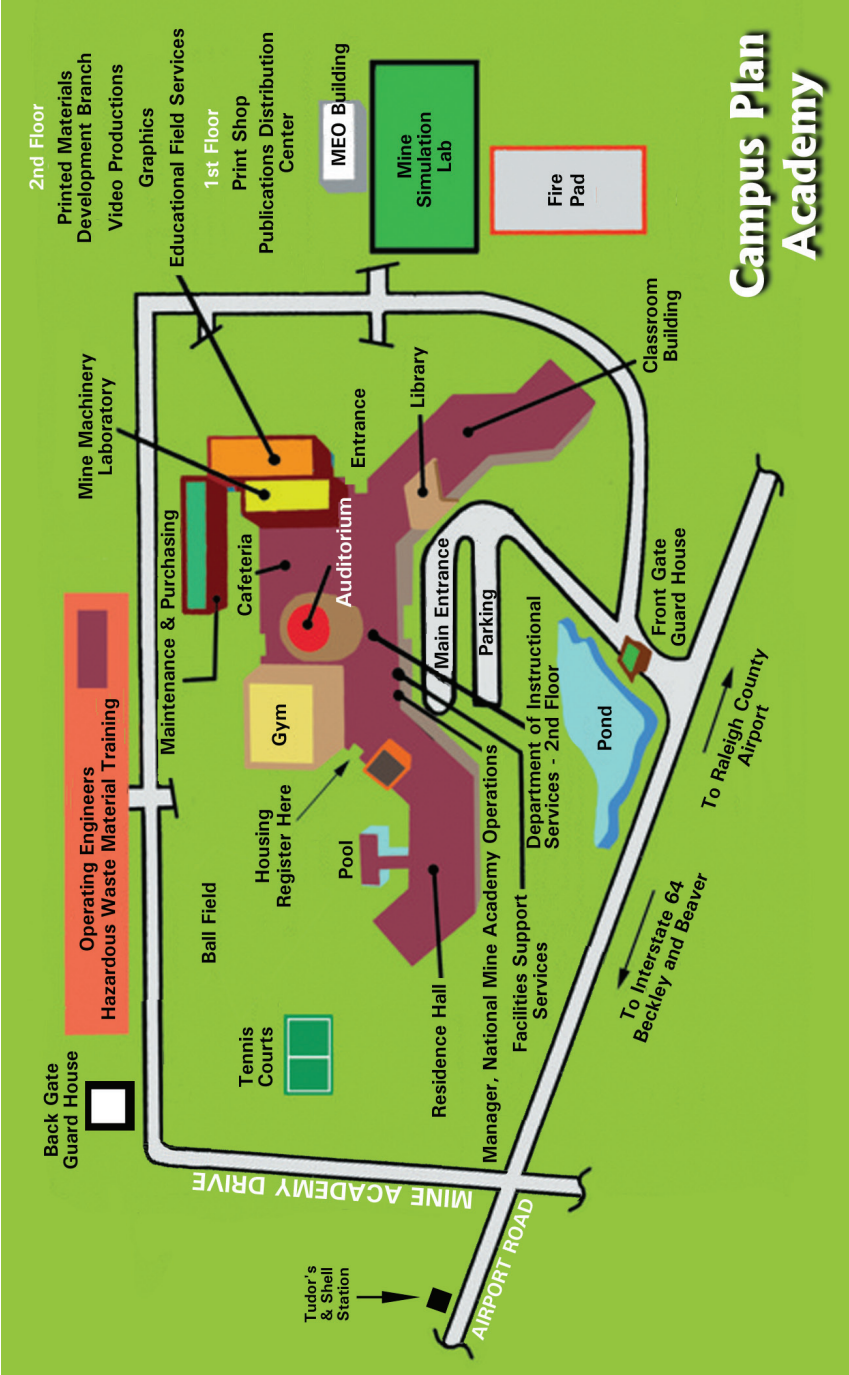
The **Maintenance and Equipment Building** is used to maintain Academy equipment.

The **Publications Distribution Center** houses the print shop, supply and warehouse facilities, and the Department of Instructional Materials.

The **Residence Hall** has 174 units. Each room in the residence hall has a queen-size bed, a private bath, television, telephone, desk, storage area, refrigerator, coffee pot, and iron and ironing board.

## 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.







## 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 coal mine safety and health inspectors receive six modules of instruction (21 weeks total) at the Academy in conjunction with required web-based training and on-the-job training (OJT) sessions in the field.

Entry-level metal/nonmetal mine safety and health inspectors training includes six modules of instruction (23 weeks total) at the Academy with OJT sessions in the field.

Journeyman training 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 special subjects.

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

Administrative, clerical, and support personnel receive an annual one-week training program to enhance their ability to assist MSHA personnel and clients.

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 Control, and Surface Facilities and Coal Preparation. In addition, the Academy will frequently furnish additional courses to the 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, annual refresher subjects, supervisory training, and mine examination. Students come from MSHA, other Federal and state agencies, industry, labor organizations, and international mining delegations.

## Academic Life

### Class Attendance

Classes are informal and while dress is casual, it should remain professional in nature. Most of our laboratory classes include hands-on activities or outside fieldwork.

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 notify their supervisor and instructors, and make up work assigned while absent.

### Grading System

The Academy uses a grading system for entry-level (coal and metal/nonmetal) 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 any course of study receive a Certificate of Completion documenting the course title, date, and CEUs.

### College Credit for Academy Courses

Mine safety and health inspectors can earn an **Associate of Applied Science Degree in Occupational Development: Mine Inspection** from the Mountwest Community and Technical College, Huntington, West Virginia. This program is a cooperative

effort among MSHA, the National Council of Field Labor Locals, the U.S. Department of Labor's Bureau of Apprenticeship and Training, and the university. Marshall will award 43 credit hours to students who complete the equivalent of the mine inspector apprentice requirements. These credits are applied to successful completion of the classroom and on-the-job training parts of Entry Level Mine Inspector training. An additional 22 hours of general education credits are also required.

## **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.

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 9-911 (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

## **Vehicles**

Students are required to register vehicles with security personnel at the main entrance to Academy grounds. You will receive a color-coded parking permit that allows you to park in a designated area. There is ample, well-lighted, and secure parking at the Academy.

## 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.

The tuition amount indicated by the course announcement is due on arrival by check, money order, or credit card (VISA and MasterCard) 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 \$44.00 per day and is due on arrival by credit card (VISA and MasterCard) or check/money order 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. Advance reservations are required. Guests under 18 years of age must be accompanied by an adult at all times.

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

## **Meals**

Participants who pay for Academy lodging may register for meals when they check in. Students staying in the Residence Hall are normally required to purchase a meal ticket for breakfast and lunch at the Academy. Dinner is optional. Prices are:

Breakfast	\$10.15
Lunch	\$12.92
Dinner	\$14.30

Participants paying for their meals in the cafeteria may do so by cash, major credit card, or check/money order payable to Basic Contracting Services, Inc.



## 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.

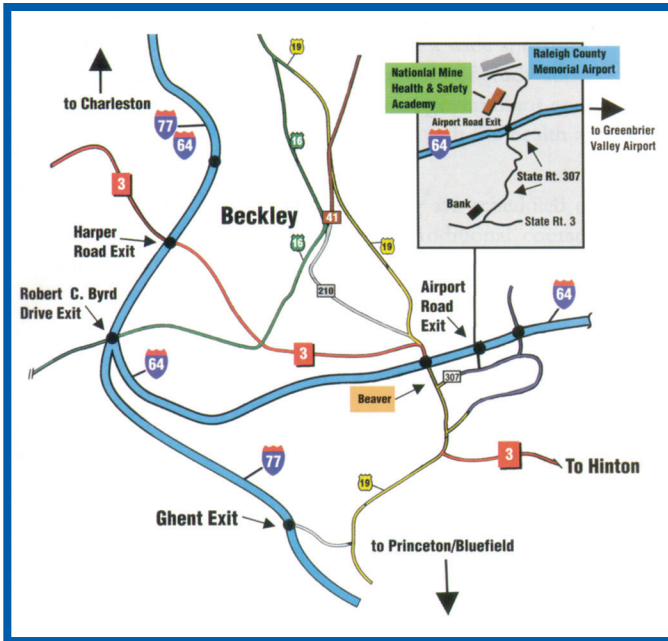
### By Bus

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 18.

## 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 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 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 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.



## Metal/Nonmetal Inspection Courses Journeyman Training

All metal and nonmetal mine safety and health inspectors will attend one week of training per year, or two weeks every other year. The training will be in a seminar format with subjects in various specialty areas. A list of dates and subjects is on page 35.

The additional courses described in this section are designed for journeyman metal and nonmetal mine safety and health inspectors and Federal, state, mining industry, and labor organization personnel.

Course dates are given at the bottom of the course description.

Scheduling  
at Worksite  
Available  
Upon Request

Courses marked by this icon may be held at your worksite. The course will be offered upon request with a minimum of 10 attendees. If your company or organization would like any of these courses presented onsite, contact Cheryl Stevens at (304) 256-3236. The course will then be scheduled.

QUESTIONS?

If you need more information about contents of a course, contact the technical coordinator for that course at (304) 256-3100 or Cheryl Stevens at (304) 256-3236.

# To Enroll Contact:

National Mine Health and Safety Academy  
Student Services Branch  
1301 Airport Road  
Beaver, West Virginia 25813-9426

TELEPHONE: (304) 256-3252  
FAX: (304) 256-3251

## **BLASTING (SURFACE) (MNM)** [EX316M]

Scheduling  
at Worksite  
Available  
Upon Request

This course discusses the characteristics and use of explosives and blasting agents. It is designed to teach blasting standards in accordance with Institute Makers of Explosives (IME) guidelines and the Code of Federal Regulations (30 CFR). The course is structured for MSHA metal/nonmetal safety and health inspectors and industry personnel.

### **Contents:**

- ◆ Definitions
- ◆ Transportation and Storage of Explosives and Blasting Agents
- ◆ Detonation Units
- ◆ Misfires
- ◆ Electric and Nonelectric Blasting Operations
- ◆ Explosives Hazards and Accidents
- ◆ Safe Blasting Principles (Work Procedures and Blast Plans)
- ◆ Initiation Systems

**Technical Coordinator:** Roger Montali  
**Course Length:** 3 days  
**Tuition:** \$252.00  
**Dates:** *Offered at worksite only with a minimum of 10 attendees*

## ELECTRICAL HAZARDS [EL301M]

This course is designed to provide practical methods and techniques for the identification of 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:** Roy Milam  
Art Wooten

**Course Length:** 3 days

**Tuition:** \$252.00

**Dates:** *Scheduled upon request with  
a minimum of 10 attendees,  
maximum of 16*



# FIRST RESPONDER WORKSHOP

[GS645G]

Scheduling  
at Worksite  
Available  
Upon Request

This is a one-day workshop designed to provide MSHA personnel, the mining industry, miner's representatives, firefighters, law enforcement personnel and emergency medical personnel with information and precautions that should be taken before or while responding to an emergency at surface mines, surface areas of underground mines, and surface mining facilities.

## Contents:

- ◆ Emergency response planning
- ◆ Large haul truck fires
- ◆ Structures in and around surface facilities
- ◆ Use of mine equipment for rescue & fire fighting
- ◆ Traffic control on mine roadways
- ◆ First responder vehicle maintenance (Brakes & Steering)

## Hazards addressed:

- ◆ Explosives storage
- ◆ Surge piles
- ◆ Draw-off tunnels
- ◆ Fuel storage (stationery and mobile)
- ◆ Belt conveyors
- ◆ Electricity
- ◆ Preparation plants and mills
- ◆ Off road haul trucks and end loaders
- ◆ Highwalls and highwall mining machines
- ◆ Chemicals and gases common to mines and facilities
- ◆ Surface areas of underground mines

**Technical Coordinator:** Johnnie Tyler

**Course Length:** 1 day

**Tuition:** None

**Date:** *Scheduled upon request with  
a minimum of 10 attendees*

# GROUND CONTROL HAZARDS

[RC301M]

Scheduling  
at Worksite  
Available  
Upon Request

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 Coordinator:** Johnnie Tyler  
**Course Length:** 3 days  
**Tuition:** \$252.00  
**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*

## 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 Coordinator:** Johnnie Tyler  
**Course Length:** 3 days  
**Tuition:** \$252.00  
**Dates:** *Scheduled upon request with a minimum of 10 attendees*

Scheduling  
at Worksite  
Available  
Upon Request

# INSPECTOR'S PORTABLE APPLICATIONS FOR LAPTOPS (IPAL) REVIEW – METAL/ NONMETAL

[CT307M]

*MSHA PERSONNEL ONLY*

The IPAL review course is designed for MSHA metal/ nonmetal mine safety and health inspectors. The course reviews the latest version of the IPAL Program. The course also covers the fundamentals of the computer operating system, troubleshooting, and how to use the computer to reference resource material stored in the computer.

## Contents:

- ◆ IPAL (Inspector's Portable Applications for Laptops)
- ◆ Reference Material (30 CFR, Mine Act, PPM, Policy Information Letters, and Program Information Bulletins)
- ◆ Basic Troubleshooting and Maintenance of the Laptop Computer and the IPAL Program
- ◆ Using Citrix Metaframe

**Technical Coordinators:** Mac Carnes  
Kevin Malay

**Course Length:** 2 days

**Tuition:** None

**Dates:** Scheduled upon request

# **MARSHALL UNIVERSITY MASTERS OF SAFETY DEGREE (EMPHASIS IN MINE SAFETY)**

[NEMU003]

Courses will be offered pursuant to the Masters of Safety Degree (Emphasis in Mine Safety) program offered by the Academy through Marshall University. Courses will be offered in a blended learning environment using distance learning technology. Courses are planned to be offered in the Spring, Summer, and Fall 2013 semesters. Marshall University offers courses online through WebCT Vista. This is available to any person enrolled as a Marshall University graduate student. It is extremely important that you be accepted into the program by Marshall University so that any computer issues that may arise can be resolved prior to beginning the course.

Students must be admitted into the program **prior** to course enrollment. Application for Graduate Admission forms may be obtained by calling Cheryl Stevens at (304) 256-3236 or by going online to [www.marshall.edu](http://www.marshall.edu). College Chemistry 203, Math 130 (college algebra), and Physics 101 or the equivalent are prerequisites for admission to this program, as is a minimum undergraduate GPA of 2.5 or being registered as a professional engineer, or scoring at the mean or above on one area of the General GRE.

Enrollment for these classes will be limited to 25 students and is on a first come first serve basis. First priority will be given to students who have taken courses previously in pursuit of this degree; those persons successfully admitted into the program through Marshall University will be given next preference.

Tuition and other related fees will be determined and posted at a later date. For more information, contact John Rosiek by email at [rosiek.john@dol.gov](mailto:rosiek.john@dol.gov) or at (304) 256-3211.

**Technical Coordinator: John Rosiek**  
**Dates: Spring 2013**  
**Summer 2013**  
**Fall 2013**

# **MINE ACCIDENT INVESTIGATION AND REPORT WRITING [IV301G]**

*MSHA PERSONNEL ONLY*

This course is for coal, metal/nonmetal, technical support, EPD, and other MSHA individuals involved in accident investigation. The course reviews 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.**

## **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**  
**Tuition: None**  
**Dates: December 4 - 13, 2012**  
**March 12 - 21, 2013**  
**May 14 - 23, 2013**  
**July 16 - 25, 2013**

# MINE ELEVATOR INSPECTION PROGRAM TRAINING – MODULE I [HS606G]

Scheduling  
at Worksite  
Available  
Upon Request

This training module covers the inspection of mine elevators and the impact of the mine environment on critical elevator components. It will enable the student to perform basic mine elevator inspections, focusing on critical safety concerns, including those identified in recent mine elevator accidents. The material will be correlated to the applicable sections of ASME A17. Many visuals and actual elevator hardware will be used throughout the program.

This module is a stand-alone program for elevators used in harsh environments. It also can be used as the first in a series of modules designed to prepare the student for taking the Qualified Elevator Inspector (QEI) certification examination.

***NOTE: Students should bring the latest version of elevator codes ASME A17.1 & A17.2.1 with them, although they are not mandatory.***

**Technical Coordinators:** Roy Milam  
Art Wooten

**Course Length:** 2 days

**Tuition:** \$168.00

**Dates:** June 25 - 26, 2013  
August 27 - 28, 2013

***Scheduled upon request with  
a minimum of 10 attendees***

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

Scheduling  
at Worksite  
Available  
Upon Request

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 Coordinator:** Clifford F. Lindsay

**Course Length:** 3 days

**Tuition:** \$252.00

**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*



# UNDERGROUND VENTILATION FOR METAL AND NONMETAL MINES [VN303N]

Scheduling  
at Worksite  
Available  
Upon Request

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
- ◆ Confined Spaces
- ◆ Hazard Controls
- ◆ Mine Maps
- ◆ Recognition of Areas That May Have Poor Air Quality
- ◆ Measuring Air Quantities
- ◆ Review of Ventilation Regulations

**Technical Coordinator:** William D. McKinney  
**Course Length:** 2 days  
**Tuition:** \$168.00  
**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*



# **Metal/Nonmetal Mine Safety and Health Inspectors Retraining**

**[LP311M] *MSHA PERSONNEL ONLY***

Metal and nonmetal mine safety and health inspectors are required to receive a minimum of two weeks of training every two years. This is the first year of the current two-year training cycle for metal/nonmetal mine safety and health inspectors.

Listed below are the dates and subjects of the training sessions scheduled at the Academy.

## **Judy Peters and John Dagner, Coordinators Schedule**

November 27 - December 6, 2012

January 29 - February 7, 2013

March 19 - 28, 2013

May 7 - 16, 2013

August 13 - 22, 2013

## **Subjects**

- ◆ Coal Firing Safety
- ◆ Documentation of Violations, Photographs, Inspections, and Investigations
- ◆ Evaluating Flagrant and Repeat Violations
- ◆ Hazardous Complaint Conditions/MSIS/Mine Profile/IPAL
- ◆ Impoundment Inspections
- ◆ Inspection Procedures
- ◆ Internal Review Summaries
- ◆ Laboratory Inspections
- ◆ Professionalism Review
- ◆ Preparing for Litigation & Testifying
- ◆ Radon Daughter Sampling, Asbestos/Fiber Sampling and Material Recognition
- ◆ Draeger Tubes, Respirable and Total Dust Sampling
- ◆ Review of Part 46/48 Requirements

## **Metal/Nonmetal Entry Level Mine Safety and Health Inspectors Training**

The courses listed in this section are designed for entry level mine safety and health inspectors. However, they may be attended by other Federal, state, mining industry, and labor organization personnel.

Training dates are given with each module.

**Need More Info? 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)

### **Metal/Nonmetal Curriculum (Modules I-VI) *MSHA PERSONNEL ONLY***

The following chart shows the required core courses for entry level mine safety and health inspectors.

Wellness training is scheduled for each module.  
Laptop computer and printer required for all modules.

**MSHA PERSONNEL ONLY**

**MODULE I (4 WEEKS)**

Orientation  
Introduction to MSHA  
and Mission  
Diversity  
Root Causes  
Standards of Conduct  
Professionalism  
Communications  
Hazard Communications

Law, Regulation and  
Policy  
Introduction to Laptops  
Effective Citation Writing  
Safety Talks I and II  
Part 45 - Contractors  
Mine Act - Purpose of  
Agency

Safety Programs  
Employee Accident  
Reporting  
Drug and Substance Abuse  
Awareness  
Employee Health and Safety  
Training Requirements  
Parts 48 and 64

**MODULE II (4 WEEKS)**

Citations/Order Writing  
& Notetaking/  
Inspector's Portable  
Applications for  
Laptops (IPAL)

Notetaking  
Mine Act - S & S  
General Inspection  
Procedures

Electricity  
Interviewing Techniques  
Courtroom Procedures

**MODULE III (4 WEEKS)**

Fire Protection  
Simulated Inspection  
Reporting Requirements -  
Part 50/ Auditing  
Mine Act - 104(d)

Ground Control I (Surface)  
Structural Safety  
Health I (with Chemical  
Hazards and HazCom)

Personal Protective  
Equipment  
Surface Haulage I

**MODULE IV (4 WEEKS)**

Drilling and Blasting  
IPAL Review  
Electrical Permissibility  
Mine Act - 107(a), 103(g)  
Hoisting  
Diesel Permissibility

Material Storage and  
Handling  
Articulating Trucks  
Conference Presentation  
Preparation (PP)  
Underground Haulage

Introduction to Special  
Investigations-  
Mine Act 105(c), 110(c)  
Mine Emergency/Mine  
Rescue/Part 49

**MODULE V (4 WEEKS)**

Health II  
Mine Act - 104(g)  
Excavation/Trenching  
Safety

Underground Ventilation  
Haulage II/Cranes  
Cement Plant Processes  
Scaffolding Safety

Industrial Ventilation  
Retaining Dams  
Pressure Vessels & Boilers

**MODULE VI (3 WEEKS)**

Ground Control II (UG)  
Maintenance & Repair/  
Construction Safety  
Electrical Review

Accident Investigation  
Slope and Shaft Sinking  
Inspection

Mine Act - 103(f), 103(k)/  
General Review  
Overall Review  
Graduation

**Metal/Nonmetal Entry Level  
Mine Safety and Health  
Inspectors Training**  
*(Dates include travel days)*  
**MSHA PERSONNEL ONLY**

**MNM GROUP M23**

Module VI	November 26 – December 14, 2012	(3 weeks)
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**Group M24**

Module V	November 26 – December 14, 2012	(3 weeks)
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Module VI	January 28 – February 15, 2013	(3 weeks)
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**Group M25**

Module III	October 15 – November 9, 2012	(4 weeks)
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Module IV	January 28 – February 15, 2013	(3 weeks)
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Module V	April 8 – 26, 2013	(3 weeks)
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Module VI	July 8 – 26, 2013	(3 weeks)
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**Group M26**

Module I		
Module II	October 15 – November 9, 2012	(4 weeks)

Module III	February 25 – March 22, 2013	(4 weeks)
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Module IV	May 6 – 24, 2013	(3 weeks)
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Module V	July 15 – August 2, 2013	(3 weeks)
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Module VI	September 16 – October 4, 2013	(3 weeks)
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**Group M27**

Module I	October 17 – November 9, 2012	(4 weeks)
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Module II	January 28 – February 15, 2013	(4 weeks)
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Module III	April 15 – May 10, 2013	(4 weeks)
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Module IV	July 8 – August 2, 2013	(4 weeks)
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Module V	September 9 – 26, 2013	(3 weeks)
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Module VI	December 2 – 20, 2013	(3 weeks)
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## Coal Inspection Courses Journeyman Training

All journeyman coal mine safety and health inspectors will attend one week of training per year, or two weeks every other year. The training will be in a seminar format with subjects in various specialty areas. A list of dates and subjects can be found on pages 58 and 59.

The additional courses described in this section are designed for journeyman coal mine safety and health inspectors and other Federal, state, mining industry, and labor organization personnel.

Course dates are given at the bottom of the course description.

Scheduling  
at Worksite  
Available  
Upon Request

Courses marked by this icon may be held at your worksite. The course will be offered upon request with a minimum of 10 attendees. If your company or organization would like any of these courses presented onsite, contact Cheryl Stevens at (304) 256-3236. The course will then be scheduled.

QUESTION?

If you need more information about contents of a course, contact the technical coordinator for that course at (304) 256-3100 or Cheryl Stevens at (304) 256-3236.

# To Enroll Contact:

National Mine Health and Safety Academy  
Student Services Branch  
1301 Airport Road  
Beaver, West Virginia 25813-9426

TELEPHONE: (304) 256-3252  
FAX: (304) 256-3251



# BLASTING (SURFACE) (COAL)

[EX316C]

Scheduling  
at Worksite  
Available  
Upon Request

This course discusses the characteristics and use of explosives and blasting agents. It is designed to teach blasting standards in accordance with Institute Makers of Explosives (IME) guidelines and the Code of Federal Regulations (30 CFR). The course is structured for MSHA coal mine safety and health inspectors and industry personnel.

## Contents:

- ◆ Definitions
- ◆ Transportation and Storage of Explosives and Blasting Agents
- ◆ Detonation Units
- ◆ Misfires
- ◆ Electric and Nonelectric Blasting Operations
- ◆ Explosives Hazards and Accidents
- ◆ Safe Blasting Principles (Work Procedures and Blast Plans)
- ◆ Initiation Systems

**Technical Coordinator:** Roger Montali  
**Course Length:** 3 days  
**Tuition:** \$252.00  
**Dates:** *Scheduled upon request with a minimum of 10 attendees*

# ELECTRICAL SAFETY FOR COAL MINERS

[EL601C]

Scheduling  
at Worksite  
Available  
Upon Request

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 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:** Roy Milam  
Art Wooten

**Course Length:** 3 days

**Tuition:** \$252.00

**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*

# FIRST RESPONDER WORKSHOP

[GS645G]

Scheduling  
at Worksite  
Available  
Upon Request

This is a one-day workshop designed to provide MSHA personnel, the mining industry, miner’s representatives, firefighters, law enforcement personnel and emergency medical personnel with information and precautions that should be taken before or while responding to an emergency at surface mines, surface areas of underground mines, and surface mining facilities.

## Contents:

- ◆ Emergency response planning
- ◆ Large haul truck fires
- ◆ Structures in and around surface facilities
- ◆ Use of mine equipment for rescue & fire fighting
- ◆ Traffic control on mine roadways
- ◆ First responder vehicle maintenance (Brakes & Steering)

## Hazards addressed:

- ◆ Explosives storage
- ◆ Surge piles
- ◆ Draw-off tunnels
- ◆ Fuel storage (stationery and mobile)
- ◆ Belt conveyors
- ◆ Electricity
- ◆ Preparation plants and mills
- ◆ Off road haul trucks and end loaders
- ◆ Highwalls and highwall mining machines
- ◆ Chemicals and gases common to mines and facilities
- ◆ Surface areas of underground mines

**Technical Coordinator:** Johnnie Tyler  
**Course Length:** 1 day  
**Tuition:** None  
**Date:** *Scheduled upon request with  
a minimum of 10 attendees*

**HAULAGE (SURFACE)  
(COAL)  
[HL301C]**

Scheduling  
at Worksite  
Available  
Upon Request

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:** Johnnie Tyler  
Roger Montali

**Course Length:** 3 days

**Tuition:** \$252.00

**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*

# INDUSTRIAL HYGIENE

[IH315C]

Scheduling  
at Worksite  
Available  
Upon Request

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:** William D. McKinney  
**Course Length:** 3 days  
**Tuition:** \$252.00  
**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*

# INSPECTOR'S PORTABLE APPLICATIONS FOR LAPTOPS (IPAL) REVIEW – COAL [CT307C]

Scheduling  
at Worksite  
Available  
Upon Request

## *MSHA PERSONNEL ONLY*

The IPAL review course is designed for MSHA coal mine safety and health inspectors. The course reviews the latest version of the IPAL Program. The course also covers the fundamentals of the computer operating system, troubleshooting, and how to use the computer to reference resource material stored in the computer.

### **Contents:**

- ◆ IPAL (Inspector's Portable Applications for Laptops)
- ◆ Reference Material (30 CFR, Mine Act, PPM, Policy Information Letters, and Program Information Bulletins)
- ◆ Basic Troubleshooting and Maintenance of the Laptop Computer and the IPAL Program
- ◆ Using Citrix Metaframe

**Technical Coordinators:** Mac Carnes  
Kevin Malay

**Course Length:** 2 days

**Tuition:** None

**Dates:** Scheduled upon request

# LONGWALL MINING AND INSPECTION PROCEDURES

[MS302C]

Scheduling  
at Worksite  
Available  
Upon Request

This course will introduce the student to longwall mining. It will also make the experienced coal mine inspectors more familiar with the trends and new technology in longwall mining. It will cover all aspects of longwall mining, including approved MSHA plans.

The first part of the course will cover all aspects of mining, including a review of all basic components of longwall mining systems and their functions. It will also cover longwall moves, degasification, and ground control for longwall faces.

The second part of the course will stress inspection procedures. It will cover all areas – from outby to the longwall face. This section has accompanying text and relates inspection procedures to the applicable standards in 30 CFR Parts 75 and 18.

## Contents:

- ◆ History and Trends
- ◆ Parts of a Longwall (shearer, plow, panline, stage loader, drives, etc.)
- ◆ Shields (parts and controls)
- ◆ Strata Control (above the longwall)
- ◆ Hydraulics
- ◆ Longwall Moves
- ◆ Special Roof Control Products for Longwalls
- ◆ Ventilation (section, gob, bleeder, bleeder fans)
- ◆ Basic Longwall Electrical Systems
- ◆ CO Monitors
- ◆ Degasification
- ◆ Respirable Dust Control
- ◆ Inspection Procedures (Special Emphasis)
- ◆ Regulations

**Technical Coordinator:** Joseph Fama

**Course Length:** 3 days

**Tuition:** \$252.00

**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*

# **MARSHALL UNIVERSITY MASTERS OF SAFETY DEGREE (EMPHASIS IN MINE SAFETY)**

[NEMU003]

Courses will be offered pursuant to the Masters of Safety Degree (Emphasis in Mine Safety) program offered by the Academy through Marshall University. Courses will be offered in a blended learning environment using distance learning technology. Courses are planned to be offered in the Spring, Summer, and Fall 2013 semesters. Marshall University offers courses online through WebCT Vista. This is available to any person enrolled as a Marshall University graduate student. It is extremely important that you be accepted into the program by Marshall University so that any computer issues that may arise can be resolved prior to beginning the course.

Students must be admitted into the program prior to course enrollment. Application for Graduate Admission forms may be obtained by calling Cheryl Stevens at (304) 256-3236 or by going online to [www.marshall.edu](http://www.marshall.edu). College Chemistry 203, Math 130 (college algebra), and Physics 101 or the equivalent are prerequisites for admission to this program, as is a minimum undergraduate GPA of 2.5 or being registered as a professional engineer, or scoring at the mean or above on one area of the General GRE.

Enrollment for these classes will be limited to 25 students and is on a first come first serve basis. First priority will be given to students who have taken courses previously in pursuit of this degree; those persons successfully admitted into the program through Marshall University will be given next preference.

Tuition and other related fees will be determined and posted at a later date. For more information, contact John Rosiek by email at [rosiek.john@dol.gov](mailto:rosiek.john@dol.gov) or at (304) 256-3211.

**Technical Coordinator: John Rosiek**  
**Dates: Spring 2013**  
**Summer 2013**  
**Fall 2013**



# MINE ACCIDENT INVESTIGATION AND REPORT WRITING

[IV301G] *MSHA PERSONNEL ONLY*

This course is for coal, metal/nonmetal, technical support, EPD, and other MSHA individuals involved in accident investigation. The course reviews 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.**

## 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**

**Tuition: None**

**Dates: December 4 - 13, 2012**

**March 12 - 21, 2013**

**May 14 - 23, 2013**

**July 16 - 25, 2013**

# MINE ELEVATOR INSPECTION PROGRAM TRAINING – MODULE I [HS606G]

Scheduling  
at Worksite  
Available  
Upon Request

This training module covers the inspection of mine elevators and the impact of the mine environment on critical elevator components. It will enable the student to perform basic mine elevator inspections, focusing on critical safety concerns, including those identified in recent mine elevator accidents. The material will be correlated to the applicable sections of ASME A17. Many visuals and actual elevator hardware will be used throughout the program.

This module is a stand-alone program for elevators used in harsh environments. It also can be used as the first in a series of modules designed to prepare the student for taking the Qualified Elevator Inspector (QEI) certification examination.

***NOTE: Students should bring the latest version of elevator codes ASME A17.1 & A17.2.1 with them, although they are not mandatory.***

**Technical Coordinators:** Roy Milam  
Art Wooten

**Course Length:** 2 days

**Tuition:** \$168.00

**Dates:** June 25 - 26, 2013  
August 27 - 28, 2013

***Scheduled upon request with  
a minimum of 10 attendees***

# NOISE HAZARDS, REGULATION, AND CONTROL

[IH321G]

Scheduling  
at Worksite  
Available  
Upon Request

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 Coordinators:** William D. McKinney  
Robert Cline

**Course Length:** 3 days

**Tuition:** \$252.00

**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*

# **ROOF CONTROL SEMINAR**

[RC501C]

This seminar is designed for miners, company managers, engineers, trainers, roof bolter machine operators, and for any individual involved with coal mine roof safety. Federal and state enforcement personnel desiring to increase their knowledge in 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 Coordinators: Joseph Fama  
Jon Braenovich**

**Course Length: 1 day**

**Tuition: None**

**Dates: May 29, 2013**

# SLOPE AND SHAFT SINKING SAFETY

[RC310G]

Scheduling  
at Worksite  
Available  
Upon Request

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:** William R. Williams

**Course Length:** 2 days

**Tuition:** \$168.00

**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*

# SURFACE FACILITIES AND COAL PREPARATION

[PP601C]

Scheduling  
at Worksite  
Available  
Upon Request

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:** Clifford F. Lindsay  
Johnnie Tyler

**Course Length:** 3 days

**Tuition:** \$252.00

**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*

# UNDERGROUND DIESEL EQUIPMENT/ VENTILATION

[VN321G]

Scheduling  
at Worksite  
Available  
Upon Request

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 Coordinators:** William D. McKinney  
William R. Williams

**Course Length:** 3 days

**Tuition:** \$252.00

**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*

# UNDERGROUND ELECTRICAL CIRCUIT PROTECTION OVERVIEW

Scheduling  
at Worksite  
Available  
Upon Request

This course is designed to provide an overview of the requirements of the National Electrical Code as applied to underground electrical circuit protection and provides compliance information for the mining community. This course is for coal industry electrical instructors and maintenance personnel.

## Contents:

- ◆ Trailing Cables and Power Cables
- ◆ Application of 30 CFR and the NEC Underground
- ◆ General Rules for Circuit Protection
- ◆ Protection of Motor Circuits
- ◆ Protection of Non-motor Circuits
- ◆ Protection of Combination Circuits

**Technical Coordinator:** Larry Cook  
**Course Length:** 1 day  
**Tuition:** \$84.00  
**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*



# UNDERGROUND HAULAGE, TRANSPORTATION, AND MACHINERY (COAL)

[HL321C]

Scheduling  
at Worksite  
Available  
Upon Request

Haulage or machinery-related accidents continue to be one of the leading causes of fatalities in underground mining. These two categories are also the leading causes of nonfatal accidents in underground mining which result in lost work days.

This course for MSHA Coal Journeyman inspectors teaches recognition of some of the hazards associated with haulage equipment and other machinery found in underground coal mines and methods to eliminate them. The inspector will recognize haulage hazards and the appropriate enforcement action to take.

## Contents:

- ◆ Recent Statistical Data
- ◆ Investigative Findings of Some Recent Accidents
- ◆ Difference Between Accidents Classified as Haulage and Those Classified as Machinery
- ◆ Regulations and Policy
- ◆ Safeguards
- ◆ Enforcement Action: Citations and Orders

**Technical Coordinators:** Roy Milam  
Art Wooten

**Course Length:** 2 days

**Tuition:** \$168.00

**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*

## **Coal Mine Safety and Health Inspectors Retraining**

**[LP311C] *MSHA PERSONNEL ONLY***

MSHA underground and surface coal mine safety and health inspectors are required to receive a minimum of two weeks of training every two years. This is the first year of the current two-year training cycle for journeyman coal mine safety and health inspectors. Listed below are the dates of the training sessions scheduled at the Academy.

### **Underground Coal Mine Safety and Health Inspectors (LP311C)**

**Richard McDorman, Coordinator  
Schedule**

January 8 - 17, 2013  
April 23 - May 2, 2013  
June 11 - 20, 2013  
July 23 - August 1, 2013

### **Subjects**

Brake Cars & Hoists  
Cable Bolts & Trusses  
Computer Data Retrieval Issues  
Diesel  
Electrical Enforcement Consistency  
Fatality Review & Library Retrieval Issues  
Fire Protection on Conveyor Belt Lines  
Hands-on Permissibility  
Health Issues  
Internal Review Issues  
New Miner Act & S&S  
Rigging  
Seals

**Surface Coal Mine  
Safety and Health Inspectors  
(LP312C)**

**Johnnie Tyler, Coordinator**

**Schedule**

August 13 - 22, 2013

**Subjects**

Surface Coal Overview  
SLAM Risks & Root Cause Process for Accident,  
Incident & Violation Analysis  
Maintenance, Construction & Repairs Accident  
Reduction Program  
Thin Seam Highwall Miners  
Health Procedures  
Surface Haulage Issues  
PowerPoint and Inspection Closeout  
Electrical  
Law, Regulation and Policy  
Surface Blasting Technology  
Basic Rigging  
Advanced Citation & Order Writing  
Interviewing and Notetaking  
Provisions for Clear Cutting on Surface Mines

Three days of training will be combined with the Mine Construction, Maintenance, and Repairs Safety Workshop and the Surface Haulage Workshop.

## **Coal Entry Level Mine Safety and Health Inspectors Training**

The courses listed in this section are designed for entry level coal mine safety and health inspectors. However, they may be attended by other Federal, state, mining industry, and labor organization personnel.

Training dates are given with each module.

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)

### **COAL CURRICULUM (MODULES I-VI)**

The following chart shows the required core courses for entry level mine safety and health inspectors.

Wellness training is scheduled for each module.  
Laptop computer and printer required for all modules.

### MODULE I (4 weeks)

Orientation	Law, Regulation, & Policy	Citations/ Orders Writing
Introduction to MSHA and Mission	Introduction to Laptops	and Notetaking/
Diversity	Effective Writing	Inspector's Portable
	Inspection Procedures	Applications for Laptops (IPAL)

### MODULE II (4 weeks)

Mine Act - S&S & 104(d)/ Part 45 Contractors	Workplace Examination	Professionalism
Safety Talks I	Combustible Materials and Rockdusting	Part 48 Training Requirements
Part 50 Reporting Requirements & Auditing	Conference Presentation Preparation (PP)	Conference Presentation
Introduction to Special Investigations/Mine Act - 105(c), 110(c)	Noise/Respirable Dust Root Cause Analysis	Communication IPAL Review A

### MODULE III (4 weeks)

Interviewing Techniques	Mine Act - 107(a)/103(g)	Fire Protection
Fire Detection and Monitoring	Simulated Inspection	Diesel Permissibility
Electrical Permissibility	Courtroom Procedures	Mine Electricity/ High Voltage Longwall/ High Voltage Miner
Shaft and Slope Sinking Inspection	Ground Control	

### MODULE IV (3 weeks)

Surface Installation	Longwall	Roof Control
Ventilation, Mine Maps, Gas Detecting Devices	Articulating Trucks	

### MODULE V (3 weeks)

Hoisting	Surface Haulage	Drilling and Blasting
Structural Safety	Ventilation II	

### MODULE VI (3 weeks)

Underground Haulage	Impoundments	Mine Act - (103(f), 103(k)
Mine Rescue/Part 49	Electrical Review	General Review
Accident Investigation	IPAL Review B	Overall Review/Graduation

The following online courses must be completed, in the field, prior to Module I:

- ◆ Rules to Live By I
- ◆ Rules to Live By II & III
- ◆ Employee Health & Safety
- ◆ Standards of Conduct
- ◆ Employee Accident Reporting
- ◆ Computer Security Awareness
- ◆ Keyboarding – students demonstrate 25 wpm with 75% accuracy
- ◆ Wellness - Part 1
- ◆ Communications

The following online courses must be completed prior to Module II:

- ◆ Hazard Communications
- ◆ Miscellaneous Health Standards
- ◆ Part 48 Training Requirements
- ◆ Professionalism
- ◆ Safety Talks I
- ◆ Part 45 Contractors
- ◆ Behavior Based Safety
- ◆ Part 50 Reporting Requirements/ Auditing

This course will be completed after Module II:

- ◆ Safety Talks II (talk given in field, reported to Academy)

The following online courses must be completed prior to Module III:

- ◆ Courtroom Procedures
- ◆ Interviewing Techniques
- ◆ Diesel Permissibility
- ◆ Mine Electricity

The following online course must be completed prior to Module V:

- ◆ Structural Safety
- ◆ Tree Cutting

The following online courses must be completed prior to Module VI:

- ◆ Impoundments
- ◆ Miscellaneous Safety Standards
- ◆ Technical Support Overview
- ◆ Wellness - Part 2

# Coal Entry Level Mine Safety and Health Inspectors Training

*(Dates include travel days)*

## COAL GROUP 85

Module VI November 26 – December 14, 2012 (3 weeks)

## COAL GROUP 86

Module V September 17 – October 5, 2012 (3 weeks)

Module VI November 26 – December 14, 2012 (3 weeks)

## COAL GROUP 87

Module V October 15 - November 9, 2012 (4 weeks)

Module VI January 28 - February 15, 2013 (3 weeks)

\*Graduation - 2/14/2013

## COAL GROUP 88

Module IV October 14, 2012 – November 2, 2012 (3 weeks)

Module V January 28 – February 15, 2013 (3 weeks)

Module VI April 8 – 26, 2013 (3 weeks)

\*Graduation - 4/25/2013

## COAL GROUP 89

Module III September 10 – October 5, 2012

Module IV November 26 – December 14, 2012

Module V February 25 – March 15, 2013

Module VI April 29 – May 17, 2013

## COAL GROUP 90

Module IV November 26 – December 14, 2012 (3 weeks)

Module V March 4 – 22, 2013 (3 weeks)

Module VI June 3 – 21, 2013 (3 weeks)

\*Graduation - June 20, 2013



## **COAL GROUP 92**

Module II	October 15 - November 9, 2012	(4 weeks)
Module III	February 25 – March 22, 2013	(4 weeks)
Module IV	May 6 – 24, 2013	(3 weeks)
Module V	July 8 – 26, 2013	(3 weeks)
Module VI	September 9 – 27, 2013	(3 weeks)
*Graduation - September 26, 2013		

## **COAL GROUP 93**

Module I	October 15 – November 9, 2013	(4 weeks)
Module II	January 27 – February 15, 2013	(3 weeks)
Module III	April 18 – May 3, 2013	(4 weeks)
Module IV	July 29 – August 23, 2013	(4 weeks)
Module V	September 16 – October 4, 2013	(3 weeks)
Module VI	December 2 – 20, 2013	(3 weeks)



## Computer Training Schedule

Contents of each computer class are listed followed by a schedule by course dates. All persons attending, except employees of Federal, state, or local governments, will be charged a tuition fee of \$252.00 for a three-day class; \$168.00 for a two-day class; and \$84.00 for a one-day class.

Need More Info? Contact:

Additional information may be obtained by contacting the Course Coordinator: Mac A. Carnes (304) 256-3398.

National Mine Health and Safety Academy  
Student Services Branch  
1301 Airport Road  
Beaver, West Virginia 25813-9426

TELEPHONE: (304) 256-3252  
FAX: (304) 256-3251



# **MICROSOFT® EXCEL 2010 – BASIC**

[CT721G]

Excel 2010 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
- ◆ Entering and Editing Data
- ◆ Modifying a Worksheet
- ◆ Using Functions
- ◆ Formatting Worksheets
- ◆ Printing
- ◆ Creating Charts
- ◆ Using the Help Feature

**Technical Coordinator: Mac Carnes**  
**Course Length: 2 days**  
**Tuition: \$252.00**  
**Dates: March 5 - 6, 2013**

# **MICROSOFT® EXCEL 2010 – INTERMEDIATE**

[CT722G]

Excel 2010 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. Activities include hands-on work in the Computer Laboratory.

## **Contents:**

- ◆ Working With Large Worksheets
- ◆ Working With Multiple Worksheets and Workbooks
- ◆ Advanced Charting
- ◆ Advanced Formatting
- ◆ Using Templates
- ◆ Additional Functions
- ◆ Protecting Parts of a Worksheet

**Technical Coordinator: Mac Carnes**  
**Course Length: 3 days**  
**Tuition: \$252.00**  
**Dates: May 7 - 9, 2013**

# **MICROSOFT® POWERPOINT 2010**

[CT711G]

Scheduling  
at Worksite  
Available  
Upon Request

Microsoft® PowerPoint 2010 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:**

- ◆ Choose the Best Method to Start a Presentation
- ◆ Create a Presentation Using Suggested Content and a Design Template
- ◆ Browse Through a Presentation
- ◆ Enter and Edit Text in a Presentation
- ◆ View a Presentation
- ◆ Insert Slides from Other Presentations
- ◆ Rearrange Slides in a Presentation
- ◆ Create a Folder to Store a Presentation
- ◆ Change Text Alignment and Spacing
- ◆ Find and Replace Text and Fonts
- ◆ Correct Text While Typing
- ◆ Check Spelling and Presentation Styles
- ◆ Add a Header and Footer
- ◆ Choose the Right Print Settings
- ◆ Preview and Print a Presentation
- ◆ Enter and Print Speaker Notes

**Technical Coordinator:** Mac Carnes  
**Course Length:** 3 days  
**Tuition:** \$252.00  
**Dates:** June 11 - 13, 2013

# MICROSOFT® WORD 2010

[CT706G]

Scheduling  
at Worksite  
Available  
Upon Request

Microsoft® Word 2010 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.

## Contents:

- ◆ Create a Document
- ◆ Edit and Format
- ◆ Present Information in Tables and Columns
- ◆ Work with Graphics/Charts
- ◆ Customize Word for the Way You Work
- ◆ Create Form Letters and Labels
- ◆ Create Forms
- ◆ Work with Footnotes and Bookmarks
- ◆ Work with Tables of Contents and Indexes

**Technical Coordinator:** Mac Carnes  
**Course Length:** 3 days  
**Tuition:** \$252.00  
**Dates:** August 6 - 8, 2013



# **VISUAL BASIC FOR APPLICATIONS (VBA) - INTRODUCTION**

[CT700G14]

VBA is an implementation of Microsoft's event-driven programming language VB6 and is built into most Microsoft Office (Excel, Word, PowerPoint, Access, and Outlook) as well as other Microsoft (MapPoint and Visio) and third party (most AutoCad versions, WordPerfect, ArcGIS, Surfer, etc.) applications. It can be used to control many aspects of the host application, including manipulating user interface features, such as menus and toolbars, and working with custom user forms or dialog boxes and data. VBA can also be used to automatically manipulate data, and create, import and export files in various formats.

As its name suggests, VBA is closely related to the Visual Basic programming language as it uses the Visual Basic Runtime Library and can be used to control one application from another. This course will concentrate on using VBA inside Microsoft Excel; however, the basic techniques learned are applicable to any VBA supported application.

This course requires basic computer skills and a basic knowledge of Microsoft Excel. Programming experience is not required.

## **Contents:**

- VBA Editor
- Data Types
- Variables
- Arrays
- Arithmetic operations
- Controlling program flow
- Excel VBA object
- VBA controls
- String, Date/Time functions
- Reading/writing data in a text file

**Technical Coordinator:** Paul Hollar  
**Course Length:** 2 days  
**Tuition:** \$168.00  
**Dates:** December 18 - 19, 2012

# **VISUAL BASIC FOR APPLICATIONS (VBA) - INTERMEDIATE**

[CT702G14]

This course is a continuation of the Introduction to VBA course with more in-depth exposure to VBA capabilities, with continued concentration in Microsoft Excel. VBA will be used to access Microsoft Access databases data and manipulate it in Excel. Basic automated Chart creation and data manipulation will be presented. VBA capabilities in Microsoft Outlook will be demonstrated.

The student should contact the instructor before class about specific issues/problems for which they would like assistance during class.

A short time will be devoted to the similarities and use of VB Scripting to completely automate certain tasks.

This course requires knowledge of the topics covered in the Introduction to VBA course.

## **Contents:**

- › Recording Macros
- › Auto\_Start Macros
- › MS Access and SQL data manipulation inside Excel
- › Changing cell font/color/etc.
- › Automating border creation
- › Automating Chart creation
- › Arithmetic operations using variables
- › Automating WorkBook and WorkSheet creation
- › Complete automation using VB Script

**Technical Coordinator:** Paul Hollar  
**Course Length:** 2 days  
**Tuition:** \$168.00  
**Dates:** December 18 - 19, 2012

## Certification and Qualification Courses

The courses in this section are available to MSHA and industry personnel. Upon successful completion of any of these courses, participants will receive the required MSHA certification for the particular area covered.

Scheduling  
at Worksite  
Available  
Upon Request

Courses marked by this icon may be held at your worksite. The course will be offered upon request with a minimum of 10 attendees. If your company or organization would like any of these courses presented onsite, contact Cheryl Stevens at (304) 256-3236. The course will then be scheduled.

If you need more information about contents of a course, contact the technical coordinator for that course at (304) 256-3100 or Cheryl Stevens at (304) 256-3236.

# To Enroll Contact:

National Mine Health and Safety Academy  
Student Services Branch  
1301 Airport Road  
Beaver, West Virginia 25813-9426  
TELEPHONE: (304) 256-3252  
FAX: (304) 256-3251

# ANNUAL RETRAINING FOR IMPOUNDMENT QUALIFICATION

[IM602C]

Scheduling  
at Worksite  
Available  
Upon Request

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:** Clifford F. Lindsay  
**Course Length:** 4 hours  
**Tuition:** \$48.00  
**Dates:** December 20, 2012  
May 16, 2013  
August 22, 2013

***Scheduled upon request with  
a minimum of 10 attendees***

# QUALIFICATION FOR IMPOUNDMENT INSPECTION

[IM601C]

Scheduling  
at Worksite  
Available  
Upon Request

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:** Clifford F. Lindsay  
**Course Length:** 8 hours  
**Tuition:** \$84.00  
**Dates:** December 18, 2012  
May 14, 2013  
August 20, 2013

*Scheduled upon request with  
a minimum of 10 attendees*

# RESPIRABLE COAL MINE DUST SAMPLER CALIBRATION/MAINTENANCE CERTIFICATION

[IH602C]

Scheduling  
at Worksite  
Available  
Upon Request

This course provides the initial training for personnel who are required to calibrate and maintain coal mine dust sampling equipment.

Successful completion of this course certifies the participant to calibrate and maintain respirable coal mine dust sampler units under the current Code of Federal Regulations (30 CFR Parts 70/71/90).

## Contents:

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

## Hands-on Instruction:

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

**Technical Coordinators:** William D. McKinney  
Robert Cline

**Course Length:** 8 hours

**Tuition:** \$84.00

**Dates:** May 8, 2013

July 31, 2013

*Scheduled upon request with  
a minimum of 10 attendees*

# RESPIRABLE COAL MINE DUST SAMPLING CERTIFICATION

[IH601C]

Scheduling  
at Worksite  
Available  
Upon Request

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

Successful completion of this course certifies the participant to collect and submit respirable coal mine dust samples under the current 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:

- ◆ Nature of Respirable Dust Hazards
- ◆ Responsibilities of the Certified Sampler
- ◆ Respirable Dust Sampling Procedures
- ◆ Approved Sampler Units
- ◆ On-Shift Parameter Checks

## Hands-on Instructions for Sampling Unit:

- ◆ Assembly
- ◆ Inspection
- ◆ Use

**Technical Coordinators:** William D. McKinney  
Robert Cline

**Course Length:** 8 hours

**Tuition:** \$84.00

**Dates:** May 7, 2013

July 30, 2013

*Scheduled upon request with  
a minimum of 10 attendees*





## General Courses for MSHA and the Mining Industry

The Academy courses described in this section are available to MSHA and industry personnel.

Scheduling  
at Worksite  
Available  
Upon Request

Courses marked by this icon may be held at your worksite. The course will be offered upon request with a minimum of 10 attendees. If your company or organization would like any of these courses presented onsite, contact Cheryl Stevens at (304) 256-3236. The course can then be scheduled.

QUESTIONS?

If you need more information about contents of a course, contact the technical coordinator for that course at (304) 256-3100 or Cheryl Stevens at (304) 256-3236.

To Enroll Contact:

National Mine Health and Safety Academy  
Student Services Branch  
1301 Airport Road  
Beaver, West Virginia 25813-9426

TELEPHONE: (304) 256-3252  
FAX: (304) 256-3251

# ACCIDENT PREVENTION TECHNIQUES

[SF601G]

Scheduling  
at Worksite  
Available  
Upon Request

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
- ◆ Managing Stress
- ◆ Job Safety Analysis
- ◆ Job Observation
- ◆ Accident Investigation
- ◆ Mine Safety Program Rating Procedures

**Technical Coordinator: Glen Poe**

**Course Length: 3 days**

**Tuition: \$252.00**

**Dates: *Scheduled upon request with a minimum of 10 attendees, maximum of 16***

# DESIGNING FOR INTRINSIC SAFETY

## [EL600C7]

Scheduling  
at Worksite  
Available  
Upon Request

This one-day course is targeted at electronic engineers who wish to design intrinsically safe circuits for MSHA approval. The course looks at the principles of intrinsic safety and provides a step-by-step explanation of the evaluation process, with detailed guidance on MSHA design criteria. The course will address required drawing documentation and will provide ideas for submitting documentation that is adequate in addressing intrinsic safety concerns yet simplified to allow easier investigation.

### Contents:

- ◆ The criteria used by MSHA for the evaluation and test of intrinsically safe circuits per 30 CFR 18.68.
- ◆ The procedure and documentation required to obtain MSHA approval of an intrinsically safe circuit.
- ◆ Requirements for encapsulation when used to exclude gas in an intrinsically safe circuit.
- ◆ Requirements for an intrinsically safe power supply with active current or voltage limiting.
- ◆ Testing and evaluation by independent laboratories using the MSHA criteria.
- ◆ Progress of MSHA accepting equivalent non-MSHA product safety standards.

**Technical Coordinator:** Cheryl Stevens  
**Course Length:** 1 day  
**Tuition:** \$84.00  
**Dates:** January 17, 2013  
May 9, 2013

# ELECTRICAL SAFETY FOR COAL MINERS

[EL601C]

Scheduling  
at Worksite  
Available  
Upon Request

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 coal industry personnel with limited or no electrical expertise.

## Contents:

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

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

**Technical Coordinators:** Roy Milam  
Art Wooten

**Course Length:** 3 days

**Tuition:** \$252.00

**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*

# ELECTRICAL SAFETY FOR METAL/ NONMETAL MINERS

[EL601M]

Scheduling  
at Worksite  
ONLY

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:** Roy Milam  
Art Wooten

**Course Length:** 2 days

**Tuition:** \$168.00

**Dates:** ***Scheduled upon request with  
a minimum of 10 attendees***

# HAZARD COMMUNICATION (HAZCOM)

[IH616G]

Scheduling  
at Worksite  
Available  
Upon Request

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:** William D. McKinney  
Johnnie Tyler

**Course Length:** 1 day

**Tuition:** \$84.00

**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*

# HOISTS AND ELEVATORS

[HS603C]

Scheduling  
at Worksite  
Available  
Upon Request

This course provides instruction to the student in the basic parts of mine personnel hoists and elevators. It includes discussion of drums, sheaves, and cages, but mainly concentrates on wire ropes and terminations. The class will also cover some of the requirements in the American Society of Mechanical Engineers (ASME) A17.1 and A17.2 which apply to elevators. The student will learn basic wire rope and termination technology and how to use this knowledge to enforce removal criteria according to the Code of Federal Regulations (30 CFR 75.1400 or 56.19000). The student will also learn how to conduct an adequate inspection for personnel hoists and elevators. There are exercises on hazard recognition. 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
- ◆ How to Apply ASME A17.1 & A17.2
- ◆ Hazard Recognition
- ◆ Inspection Procedure
- ◆ Citation and Order Writing

**Technical Coordinator:** Joseph Fama

**Course Length:** 3 days

**Tuition:** \$252.00

**Dates:** April 9 - 11, 2013

*Scheduled upon request with  
a minimum of 10 attendees*

# 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.

A minimum of 10 students is required; the maximum class size is 15 students.

## Contents:

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

**Technical Coordinators:** William D. McKinney  
Robert Cline

**Course Length:** 3 days

**Tuition:** \$252.00

**Dates:** *Limited availability; to be arranged with individual operators*

*Scheduled upon request with a minimum of 10 attendees, maximum of 15*



# INSTRUCTOR TRAINING WORKSHOP (PART 48) [GS643G]

Scheduling  
at Worksite  
Available  
Upon Request

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. The presentation will be videotaped for playback and individual review.

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
- ◆ 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:** Belinda Browning

**Course Length:** 3 days

**Tuition:** \$252.00

**Dates:** Oct. 30 - Nov. 1, 2012

June 18 - 20, 2013

February 26 - 28, 2013

July 23 - 25, 2013

April 16 - 18, 2013

August 20 - 22, 2013

May 21 - 23, 2013

September 17 - 19, 2013

***Scheduled upon request with a minimum of 10 attendees, maximum of 20***

# INTERMEDIATE TOXICOLOGY

[IH606G]

Scheduling  
at Worksite  
Available  
Upon Request

This course will provide the students with a review of the uptake, distribution, metabolism, and elimination of industrial and environmental chemicals. Dose- and time-response relationships will be discussed. Toxic effects of metals, particulates, solvents, and other chemicals found in the mine environment will be examined.

## Contents:

- ◆ Introduction to Fundamental Concepts of Toxicology
- ◆ Review of Terminology Used in Toxicology
- ◆ Comparison of Inhalation, Ingestion, and Dermal Exposures
- ◆ Definition of Endpoints of Toxicity
- ◆ Summary of Acute Versus Chronic Toxicity
- ◆ Discussion of Toxicity Data Used to Develop Exposure Limits for Humans

**Instructor:** Michelle Schaper  
**Technical Coordinator:** William D. McKinney  
**Course Length:** 3 days  
**Tuition:** \$252.00  
**Dates:** *Scheduled upon request with  
a minimum of 8 attendees*

# INTRODUCTION TO MINING

[MS701G]

Scheduling  
at Worksite  
Available  
Upon Request

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 Coordinator:** Randy L. Skaggs  
**Course Length:** 3 days  
**Tuition:** \$252.00  
**Dates:** July 30 - August 1, 2013

***Scheduled upon request with a minimum of 8 attendees,  
maximum of 15***

# MARSHALL UNIVERSITY MASTERS OF SAFETY DEGREE (EMPHASIS IN MINE SAFETY)

[NEMU003]

Scheduling  
at Worksite  
Available  
Upon Request

Courses will be offered pursuant to the Masters of Safety Degree (Emphasis in Mine Safety) program offered by the Academy through Marshall University. Courses will be offered in a blended learning environment using distance learning technology. Courses are planned to be offered in the Spring, Summer and Fall 2013 semesters. Marshall University offers courses online through WebCT Vista. This is available to any person enrolled as a Marshall University graduate student. It is extremely important that you be accepted into the program by Marshall University so that any computer issues that may arise can be resolved prior to beginning the course.

Students must be admitted into the program **prior** to course enrollment. Application for Graduate Admission forms may be obtained by calling Cheryl Stevens at (304) 256-3236 or by going online to [www.marshall.edu](http://www.marshall.edu). College Chemistry 203, Math 130 (college algebra), and Physics 101 or the equivalent are prerequisites for admission to this program, as is a minimum undergraduate GPA of 2.5 or being registered as a professional engineer, or scoring at the mean or above on one area of the General GRE.

Enrollment for these classes will be limited to 25 students and is on a first come first serve basis. First priority will be given to students who have taken courses previously in pursuit of this degree; those persons successfully admitted into the program through Marshall University will be given next preference.

Tuition and other related fees will be determined and posted at a later date. For more information, contact John Rosiek by email at [rosiek.john@dol.gov](mailto:rosiek.john@dol.gov) or at (304) 256-3211.

**Technical Coordinator:** John Rosiek  
**Dates:** Spring 2013  
Summer 2013  
Fall 2013

# MINE ACCIDENT INVESTIGATION TECHNIQUES

[IV601G]

Scheduling  
at Worksite  
Available  
Upon Request

This course is directed towards safety directors, managers, foremen, union safety committee persons, or mining industry (metal/nonmetal or coal) individuals involved in accident investigation. Course content reviews 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:

- ◆ Overview of Accident Investigation
- ◆ Pre-Investigation Activities
- ◆ Accident Reconstruction
- ◆ Photography/Sketching
- ◆ Interviewing Techniques
- ◆ Data Collection and Evaluation
- ◆ Developing Conclusions and Recommendations

**Technical Coordinator:** David Elkins  
**Course Length:** 3 days  
**Tuition:** \$252.00  
**Dates:** February 26 - 28, 2013

***Scheduled upon request with a minimum of 10 attendees,  
maximum of 16***

# MINE CONSTRUCTION, MAINTENANCE, AND REPAIRS SAFETY

[MS615G]

Scheduling  
at Worksite  
Available  
Upon Request

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 Coordinators:** Johnnie Tyler  
Roger Montali

**Course Length:** 2 days

**Tuition:** \$168.00

**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*

# MINE ELEVATOR INSPECTION PROGRAM TRAINING – MODULE I [HS606G]

Scheduling  
at Worksite  
Available  
Upon Request

This training module covers the inspection of mine elevators and the impact of the mine environment on critical elevator components. It will enable the student to perform basic mine elevator inspections, focusing on critical safety concerns, including those identified in recent mine elevator accidents. The material will be correlated to the applicable sections of ASME A17. Many visuals and actual elevator hardware will be used throughout the program.

This module is a stand-alone program for elevators used in harsh environments. It also can be used as the first in a series of modules designed to prepare the student for taking the Qualified Elevator Inspector (QEI) certification examination.

***NOTE: Students should bring the latest version of elevator codes ASME A17.1 & A17.2.1 with them, although they are not mandatory.***

**Technical Coordinators:** Roy Milam  
Art Wooten

**Course Length:** 2 days

**Tuition:** \$168.00

**Dates:** June 25 - 26, 2013  
August 27 - 28, 2013

***Scheduled upon request with  
a minimum of 10 attendees***

# MINE RESCUE TRAINING

[ME601G]

Scheduling  
at Worksite  
Available  
Upon Request

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 Coordinator:** Mack Wright

**Course Length:** 1 day

**Tuition:** \$84.00\*

**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*

- \* Tuition may be waived for mine rescue team members participating in team training activities, up to ten (10) days per calendar year.



# NOISE HAZARDS, REGULATION, AND CONTROL

[IH321G]

Scheduling  
at Worksite  
Available  
Upon Request

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 Coordinators:** William D. McKinney  
Robert Cline

**Course Length:** 3 days

**Tuition:** \$252.00

**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*

# ROOT CAUSE ANALYSIS WORKSHOP

[SF602G]

Scheduling  
at Worksite  
Available  
Upon Request

The purpose of the Root Cause Analysis Workshop is to begin action toward reducing violations, accidents, and incidents at a mining operation. Root Cause Analysis recognizes that violations, accidents, and incidents are an indicator of a breakdown which allows these occurrences to happen. This method will result in a professional approach to accident prevention, and can act as a training mechanism for workers and mine operators.

Class activities will involve citations and orders issued during an inspection and the incidents and/or accidents that a mine has encountered to initiate a process of analysis that will start an inquiry into questions such as:

- ◆ What is causing these violations, accidents, and incidents to occur at the mining operation?
- ◆ Why does the mine have the same type of violations at each inspection?
- ◆ Why does the mine continue to have the same kind of accidents and incidents?
- ◆ What can be done to eliminate the violations, accidents, and incidents at this mine?

**Technical Coordinator:** Glen Poe

**Course Length:** 1 day

**Tuition:** \$84.00

**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*

# **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:** Clifford F. Lindsay  
Johnnie Tyler

**Course Length:** 3 days

**Tuition:** \$252.00

**Dates:** *Scheduled upon request with  
a minimum of 10 attendees*



## Seminars/Workshops for MSHA and the Mining Industry

The Academy Seminars/Workshops described in this section are available to MSHA and industry personnel.

QUESTIONS?

If you need more information about contents of a seminar/workshop, contact the technical coordinator for that seminar/workshop at (304) 256-3100 or Cheryl Stevens at (304) 256-3236.

To Enroll Contact:

National Mine Health and Safety Academy  
Student Services Branch  
1301 Airport Road  
Beaver, West Virginia 25813-9426

TELEPHONE: (304) 256-3252  
FAX: (304) 256-3251

## **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 the 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:** Kevin Malay  
**Course Length:** 2 days  
**Tuition:** None  
**Dates:** January 23 - 24, 2013

# FIRST RESPONDER WORKSHOP

[GS645G]

This is a one-day workshop designed to provide MSHA personnel, the mining industry, miners' representatives, firefighters, law enforcement personnel, and emergency medical personnel with information and precautions that should be taken before or while responding to an emergency at surface mines, surface areas of underground mines, and surface mining facilities.

## Contents:

- ◆ Emergency response planning
- ◆ Large haul truck fires
- ◆ Structures in and around surface facilities
- ◆ Use of mine equipment for rescue & fire fighting
- ◆ Traffic control on mine roadways
- ◆ First responder vehicle maintenance (Brakes & Steering)

## Hazards addressed:

- ◆ Explosives storage
- ◆ Surge piles
- ◆ Draw-off tunnels
- ◆ Fuel storage (stationary and mobile)
- ◆ Belt conveyors
- ◆ Electricity
- ◆ Preparation plants and mills
- ◆ Off road haul trucks and end loaders
- ◆ Highwalls and highwall mining machines
- ◆ Chemicals and gases common to mines and facilities
- ◆ Surface areas of underground mines

**Technical Coordinator:** Johnnie Tyler

**Course Length:** 1 day

**Tuition:** None

**Date:** *Scheduled upon request with  
a minimum of 5 attendees*

# MINE CONSTRUCTION, MAINTENANCE, AND REPAIRS SAFETY WORKSHOP

[MS502G]

This workshop 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.

## Topics:

- ◆ Risk Management
- ◆ Contractor Pre-Qualification
- ◆ Hearing Loss Prevention
- ◆ Fire Extinguisher Simulator Training
- ◆ Trenching Regulations and Practices
- ◆ Manitowac Crane Safety
- ◆ Crane Safety Inspections (Hands-on)
- ◆ Prevention of “Rigger Mortis” - A systematic Approach to Rigging
- ◆ Welding Safety
- ◆ Electrical Accidents Analysis and Prevention
- ◆ Construction Blasting
- ◆ Wheels and Rims Safety Hazards
- ◆ Scaffold Safety

**Technical Coordinators:** Johnnie Tyler  
Roger Montali

**Course Length:** 3 days

**Tuition:** None

**Dates:** *Scheduled upon request with  
a minimum of 8 attendees*



## **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 Coordinators:** Joseph Fama  
Jon Braenovich  
**Course Length:** 1 day  
**Tuition:** None  
**Dates:** May 29, 2013

# **SURFACE HAULAGE WORKSHOP**

[HL502G1]

This workshop brings together representatives of the mining industry and others that are involved with the planning, design, and use of surface mine haulage equipment and/or systems. The seminar will provide an opportunity for the participants to exchange information and observe firsthand new technology, equipment, and innovations that are being used in the mining industry. Industry and other technical presenters will provide presentations, exhibits, and equipment displays that allow the participants to interact in small groups with the presenters and each other.

## **Contents:**

- ◆ Equipment Brake Systems
- ◆ Equipment Safety Instructions
- ◆ Tire Care and Maintenance
- ◆ Crane Safety
- ◆ Solutions to Mobile Equipment Blind Spots
- ◆ Dump Point Safety
- ◆ Diesel-Electric Equipment
- ◆ Fire Suppression on Haulage Equipment
- ◆ Haul Roads – Keys to Accident Prevention
- ◆ Hazards and Accident Prevention in Belt Conveyor Operations
- ◆ New Automation Technologies – Conveyor, Plants, Mills
- ◆ Safe Handling and Transport of Bulk Blasting Agents
- ◆ Safety Aspects of Mounting/Demounting Tires
- ◆ Haul Road Design

**Technical Coordinator:** Roger Montali  
**Course Length:** 2 days  
**Tuition:** None  
**Dates:** August 20 - 21, 2013

# **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.

<b>Technical Coordinator:</b>	<b>Robert Glatter</b>
<b>Course Length:</b>	<b>2½ days</b>
<b>Tuition:</b>	<b>None</b>
<b>Dates:</b>	<b>October 9 - 11, 2012</b>
	<b>October 15 - 17, 2013</b>
	<b>October 14 - 16, 2014</b>

# **WESTERN BLASTING SEMINAR**

[EX601G14]

Scheduling  
at Worksite  
Available  
Upon Request

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 the 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:** Kevin Malay  
**Course Length:** 2 days  
**Tuition:** None  
**Dates:** Summer 2013

## Technical Specialists Training

MSHA mine safety and health inspectors, supervisors, specialists, administrative, and clerical personnel are to receive a minimum of two weeks advanced training every two years.

Listed below are the groups and dates for which training sessions have been scheduled at the Academy:

### **Coal Electrical Training** [EL401C - 56 hours]

**Coordinator:** Larry Cook

**March 5 - 14, 2013**

### **Educational Field Services Training** [8 hours]

**January 15 - 17, 2013**

**September 9 - 12, 2013**

### **Health Specialists** [IH401G]

**Coordinator:** William D. McKinney

**October 29 - November 2, 2012**

**February 11 - 15, 2013**

**May 13 - 17, 2013**

**August 12 - 16, 2013**

### **Impoundment Specialists** [IM401C - 21 hours]

**Coordinator:** Clifford F. Lindsay

**April 30 - May 2, 2013**

### **MNM Journeyman Mine Safety and Health Inspectors**

[LP311M - 56 hours]

**Coordinators:** Judy Peters/John Dagner

**November 27 - December 6, 2012**

**January 29 - February 7, 2013**

**March 19 - 28, 2013**

**May 7 - 16, 2013**

**August 13 - 22, 2013**

**Roof Control Specialists [RC401C - 21 hours]**

**Coordinator: Jon Braenovich**

**May 7-9, 2013**

**Special Investigators [IV402G]**

**Coordinator: Judy Peters**

» **Basic SI Module I**

**February 26 - March 14, 2013**

» **Complaint Processor Certification Training**

**June 18 - 20, 2013**

» **Basic SI Module II**

**July 16 - 25, 2013**

**Surface Coal Mine Safety and Health Inspectors**

**[LP312C - 56 hours]**

**Coordinator: Johnnie Tyler**

**August 13 - 22, 2013**

**Underground Coal Mine Safety and Health Inspectors  
Journeyman Retraining**

**[LP311C - 56 hours]**

**Coordinator: Richard McDorman**

**January 8 - 17, 2013**

**April 23 - May 2, 2013**

**June 11 - 20, 2013**

**July 23 - August 1, 2013**

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## **Schedule of Academy Events By Date**

### **October 8 - 12, 2012**

- ◆ TRAM/National Mine Instructors Seminar  
10/9 - 11/2012

### **October 15 - 19, 2012**

- ◆ Visual Basic for Applications (VBA) - Introduction  
10/16 - 17/2012

### **October 22 - 26, 2012**

- ◆ EEO Training  
10/22/2012
- ◆ MSHA Leadership Competencies  
10/23 - 26/2012

### **October 29 - November 2, 2012**

- ◆ Instructor Training Workshop (Part 48)  
10/30 - 11/1/2012
- ◆ Health Specialists Retraining  
10/29 - 11/2/2012

### **November 26 - 30, 2012**

- ◆ MNM Journeyman Retraining  
11/27 - 12/6/2012

### **December 3 - 7, 2012**

- ◆ MNM Journeyman Retraining  
12/3 - 6/2012
- ◆ Mine Accident Investigation and Report Writing  
12/4 - 13/2012

### **December 17 - 21, 2012**

- ◆ Qualification for Impoundment Inspection [8 hours]  
12/18/2012

- ◆ Visual Basic for Applications (VBA) - Intermediate  
12/18 - 19/2012
- ◆ Annual Retraining for Impoundment Qualifications [4 hours]  
12/20/2012
- ◆ Annual Retraining for Impoundment Inspection [4 hours]  
12/20/2012

### **January 7 - 11, 2013**

- ◆ Underground CMI Journeyman Retraining  
1/8-17/2013

### **January 14 - 18, 2012**

- ◆ Educational Field Services  
1/15 - 17/2013
- ◆ Designing for Intrinsic Safety  
1/17/2013

### **January 21- 25, 2013**

- ◆ Accident Investigation Retraining  
1/23 - 24/2013
- ◆ Blasting Seminar (Beckley, WV)  
1/23 - 24/2013

### **January 28 - February 1, 2013**

- ◆ MNM Journeyman Retraining  
1/29 - 2/7/2013

### **February 4 - 8, 2013**

- ◆ MNM Electrical Retraining  
2/5 - 14/2013

### **February 11-15, 2013**

- ◆ Health Specialists  
2/11 - 15/2013

### **February 25 - March 1, 2013**

- ◆ Basic SI Module I  
2/26 - 3/14/2013

- ◆ Mine Accident Investigation Techniques  
2/26 - 28/2013
- ◆ Instructor Training Workshop (Part 48)  
2/26 - 28/2013

### **March 4 - 8, 2013**

- ◆ Basic Excel  
3/5 - 7/2013
- ◆ Coal Electrical Retraining  
3/5 - 14/2013

### **March 11 - 15, 2013**

- ◆ Mine Accident Investigation and Report Writing  
3/12 - 21/2013
- ◆ Health Specialists  
3/14 - 16/2013

### **March 18 - 22, 2013**

- ◆ MNM Journeyman Retraining  
3/19 - 28/2013

### **March 25 - 29, 2013**

- ◆ MNM Electrical Retraining  
3/25 - 28/2013

### **April 1 - 5, 2013**

- ◆ Qualification for Impoundment Inspection 8 hr  
4/2/2013
- ◆ Annual Retraining for Impoundment Inspection 4 hr  
4/4/2013

### **April 8 - 12, 2013**

- ◆ Hoists & Elevators  
4/9 - 11/2013

- ◆ Instructor Training Workshop  
4/9 - 11/2013

### **April 15 - 19, 2013**

- ◆ Instructor Training Workshop (Part 48)  
4/16 - 18/2013

### **April 22 - 26, 2013**

- ◆ Underground CMI Journeyman Retraining  
4/23 - 5/2/2013

### **April 29 - May 3, 2013**

- ◆ MSHA Dam Safety Training/ Impoundment Specialists  
4/30 - 5/2/2013

### **May 6-10, 2013**

- ◆ Repirable Coal Mine Dust Sampling Certification  
5/7/2013
- ◆ MNM Journeyman Retraining  
5/7 - 16/2013
- ◆ Intermediate Excel  
5/7 - 9/2013
- ◆ Respirable Coal Mine Dust Sampler Calibration/  
Maintenance Certification  
5/8/2013
- ◆ Designing for Intrinsic Safety  
5/9/2013

### **May 13-17, 2013**

- ◆ Roof Control Specialists  
5/14 - 16/2013
- ◆ Mine Accident Investigation and Report Writing  
5/14 - 23/2013
- ◆ Health Specialists  
5/13 - 17/2013
- ◆ Annual Retraining for Impoundment Qualification [4 hours]  
5/16/2013

- ◆ Qualification for Impoundment Inspection [8 hours]  
5/14/2013

### **May 20-24, 2013**

- ◆ Instructor Training Workshop (Part 48)  
5/21 - 23/2013

### **May 27-31, 2013**

- ◆ Roof Control Seminar  
5/29/2013

### **June 10-14, 2013**

- ◆ Microsoft PowerPoint  
6/11 - 13/2013
- ◆ Underground CMI Journeyman Retraining  
6/11 - 20/2013

### **June 17-21, 2013**

- ◆ Complaint Processor Certification Training  
6/18 - 20/2013
- ◆ Instructor Training Workshop (Part 48)  
6/18 - 20/2013

### **June 24-28, 2013**

- ◆ Mine Elevator Inspection  
6/25 - 26/2013

### **July 15-19, 2013**

- ◆ Basic SI Module II  
7/16 - 25/2013
- ◆ Mine Accident Investigation and Report Writing  
7/16 - 25/2013

### **July 22-26, 2013**

- ◆ Basic SI Module II  
7/22 - 25/2013

- ◆ Mine Accident Investigation Report Writing  
7/22 - 25/2013
- ◆ Instructor Training Workshop (Part 48)  
7/23 - 25/2013
- ◆ Underground CMI Journeyman Retraining  
7/23 - 8/1/2013

### **July 29-August 2, 2013**

- ◆ Respirable Coal Mine Dust Sampling Certification  
7/30/2013
- ◆ Introduction to Mining  
7/30 - 8/1/2013
- ◆ Respirable Coal Mine Dust Sampler Calibration/  
Maintenance Certification  
7/31/2013
- ◆ Western Blasting Seminar (Denver, CO)  
TBA

### **August 5-9, 2013**

- ◆ Microsoft® Word  
8/6 - 8/2013

### **August 12-16, 2013**

- ◆ MNM Journeyman Retraining  
8/13 - 22/2013
- ◆ Health Specialists  
8/12 - 16/2013
- ◆ Surface CMI Retraining  
8/13 - 22/2013

### **August 19-23, 2013**

- ◆ Underground CMI Retraining  
8/19 - 22/2013
- ◆ MNM Journeyman Retraining  
8/19 - 22/2013

- ◆ Surface CMI Retraining  
8/19 - 22/2013
- ◆ Surface Haulage Workshop  
8/20 - 21/2013
- ◆ Instructor Training Workshop (Part 48)  
8/20 - 22/2013
- ◆ Qualification for Impoundment Inspection [8 hours]  
8/20/2013
- ◆ Annual Retraining for Impoundment Qualification [4 hours]  
8/22/2013

### **August 26-30, 2013**

- ◆ Mine Elevator Inspection  
8/27 - 28/2013

### **September 9-13, 2013**

- ◆ Educational Field Services  
9/9 - 12/2013

### **September 16-20, 2013**

- ◆ Instructor Training Workshop (Part 48)  
9/17 - 19/2013

### **October 14-18, 2013**

- ◆ TRAM/National Mine Instructors Seminar  
10/15 - 17/2013

## **Metal/Nonmetal Scheduled Training**

- ◆ MSHA Mine Rescue Team Training  
November 2012
- ◆ Supervisory Meeting  
March 2013
- ◆ Industrial Hygiene  
April 2013
- ◆ MERD  
May 2013
- ◆ MSHA Mine Rescue Team Training  
May 2013

## **Coal Scheduled Training**

- ◆ Health Supervisors meetings  
– 1 Per Quarter
- ◆ Health Clerks Training  
– TBA
- ◆ Conference Litigation (CLR) Training  
– TBA
- ◆ CLR Clerk Training  
– TBA
- ◆ Annual Field Office Supervisor Retraining  
– TBA
- ◆ Dam Safety Training  
– TBA
- ◆ Bi Query/IT Training
- ◆ CSMH Annual MERD/Manager/Supervisor Training  
– TBA
- ◆ CSMH Managers Meetings  
– (2) TBA



## 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) \_\_\_\_\_

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(area code)

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Please complete this form and return to:

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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:

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