# **Courses for MSHA and the Mining Industry**



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

FY 2017



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

Visit the Mine Safety and Health Administration at www.msha.gov

# **Contents**

Pag	e
Courses and Seminars/Workshops by Topicii	i
Welcome1	
History	)
The Academy's Purpose and Goal	)
Academy Organization 3	3
Academic Programs9	)
Academic Life11	
Student Life	3
Fees and Billing	5
Travel to the Academy	7
Training Courses	)
Metal/Nonmetal Inspection Courses	
Journeyman Training21	
Metal/Nonmetal Mine Safety and Health	
Inspectors Retraining35	;
Metal/Nonmetal Entry Level Mine Safety and	
Health Inspectors Training41	ĺ
Coal Inspection Courses	
Journeyman Training43	}
Coal Mine Safety and Health Inspectors	
Retraining 67	,
Coal Entry Level Mine Safety and Health	
Inspectors Training 69	
Computer Training Schedule75	
Certification and Qualification Courses	ĺ
General Courses for MSHA and the	
Mining Industry 89	)

	Page
Seminars/Workshops for MSHA and the	
Mining Industry	111
Technical Specialists Training	118
Courses and Seminars/Workshops - Alphabetically	121
Schedule of Academy Events By Date	124
Suggestion Form for New Courses	131
Enrollment Form	133
Other Available Catalogs	135

# Courses and Seminars/Workshops By Topic

Page	)
Accident Prevention and Investigation Courses	
Accident Prevention Techniques90	
Mine Accident Investigation and	
Report Writing31, 55	
Mine Accident Investigation Techniques 100	
Workplace Examinations66, 110	
Certification/Qualification Courses	
Annual Retraining for Impoundment Qualification 82	
Continuous Personal Dust Monitor (CPDM)  Maintenance and Calibration Certification	
Continuous Personal Dust Monitor (CPDM)	
Sampling Certification	
Qualification for Impoundment Inspection	
Respirable Coal Mine Dust Sampler	
Calibration/Maintenance Certification	
Respirable Coal Mine Dust Sampling Certification 88	
Computer Courses	
Inspector's Portable Applications for Laptops	
(IPAL) Review	
Coal 52	
Metal/Nonmetal	
Microsoft® Excel 2010 – Basic	
Microsoft <sup>®</sup> Excel 2010 – Intermediate	
Microsoft® Excel 2010 – Advanced	
Microsoft® PowerPoint 2010	
Microsoft® Word 201080	

	Page
Electrical Courses	
Electrical Hazards	24
Electrical Safety for Coal Miners	47, 91
Electrical Safety for Metal/Nonmetal Miners	92
Underground Electrical Circuit Protection Overview	v 64
Industrial Hygiene Courses	
Hazard Communication (HazCom)	94
Industrial Hygiene	51
Industrial Hygiene: Sampling for Respirable	
Silica Dust and Noise	95
Noise Hazards, Regulation, and Control5	59, 107
Instructor Courses	
Instructor Training Workshop (Part 48)	96
Mine Rescue Training Courses	
Mine Rescue Training	104
Mine Rescue Visio Mapping and Map	
Scoring Training	105
Mine Safety Courses	
Atmospheric Monitoring System (AMS) with Emph on Fire Protection	
Blasting (Surface) (Coal)	46
Blasting (Surface) (MNM)	23
First Aid/ CPR/ AED Usage25, 48,	85, 93
Ground Control Hazards (MNM)	27
Haulage (Surface) (Coal)	50
Haulage (Surface) (MNM)	28
Introduction to Mining	97

	Page
Law/Regulation/Policy, Citation/Order Writing,	
Inspection Procedures	
Longwall Mining and Inspection Procedures	53
Marshall University Masters of Safety Degree	
(Emphasis in Mine Safety)	. 30, 54, 99
Mine Construction, Maintenance, and Repairs Safety	101
Mine Explosion Prevention	56, 102
Mine Hoist and Elevator Inspection Program	
Training	32, 57, 103
Mine Ventilation	58,106
Off Road Tire Safety	108
Roof Control Seminar	60, 115
Slope and Shaft Sinking Safety	61
Surface Facilities and Coal Preparation	62, 109
Tailings Dam and Waste Pile Inspection –	
Metal/Nonmetal	33
Underground Diesel Equipment/Ventilation	63
Underground Haulage, Transportation, and Machinery (Coal)	65
Underground Ventilation for Metal/	
Nonmetal Mines	34
Seminars/Workshops	
Blasting Seminar	112
First Responder Safety/Mine Site Emergencie Workshop	
Mine Construction, Maintenance, and	
Repairs Safety Workshop	114
Roof Control Seminar	60, 115
Surface Haulage Workshop	116
TRAM/National Mine Instructors Seminar	117

#### Welcome

Welcome to the 2017 edition of Courses for MSHA and the Mining Industry.

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

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

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

Most of the Academy's courses are open to participants from 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

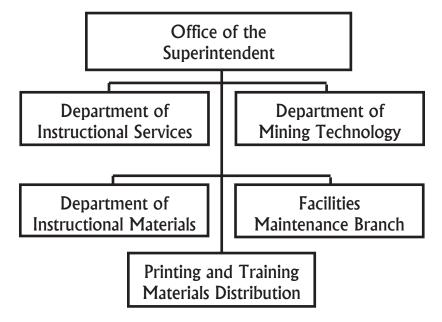
The purpose of the Academy is to design, develop, and conduct instructional programs that will assist in government, industry, and labor efforts to reduce injuries, illnesses, and fatalities in the mineral industries.

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 Maintenance Branch
- Printing and Training Materials Distribution



The **Office of the Superintendent** is responsible for the immediate management and direction of the Academy and for coordination of all training programs, and management of all printing, storing, distributing Academy training products and MSHA informational products.

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, (6) coordinating student services activities such as facility scheduling. recordkeeping. student wellness. contract administration, student enrollment, and security.

The Technical Information Center and Library is part of the Instructional Services Department. The 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 **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, and (4) producing graphics materials in support of Agency initiatives and training. (5) developing online training material.

**Facilities Maintenance Branch** manages the coordination of budget and procurement, physical plant maintenance, contract administration, food service, and audiovisual support.

# 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 **Electrical Laboratory** gives students an opportunity for hands-on health and safety training on different mining machinery 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.

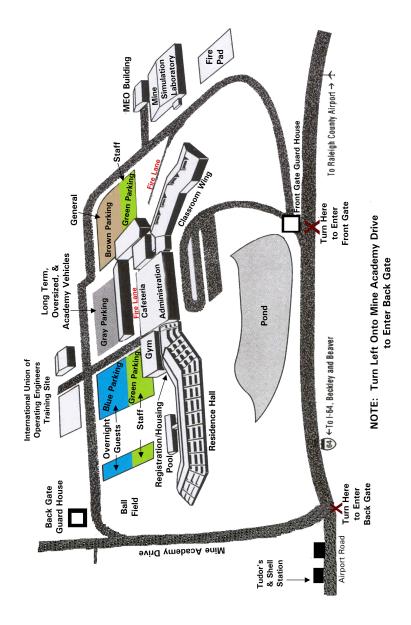
The **Maintenance and Equipment Building** is used to maintain Academy equipment.

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 (21 weeks total) at the Academy in conjunction with required web-based training and 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.

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 (no shorts or flip flops). Most of our laboratory classes include hands-on activities or outside fieldwork. Due to the proximity of heavy equipment, shorts and flip flops are not authorized wear for Academy classes.

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 (MCTC), 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. MCTC 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 and well-lighted 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

Any company or organization requesting a course to be presented at their worksite will be required to pay the tuition fee of \$84.00 per day for each person and travel expenses for the MSHA instructor.

### Lodging

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

The lodging fee is \$45.00 per day for an individual and is due on arrival by credit card (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. The fee for spouses and children 18 years of age and older is \$15.00. Children under the age of 18 are free and must be accompanied by an adult at all times. Advance reservations are required.

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

#### Meals

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	\$12.00
Lunch	\$15.50
Dinner	\$15.50

Participants paying for their meals in the cafeteria may do so by cash, major credit card, or check/money order payable to Xcel Management Solutions, LLC.

# 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

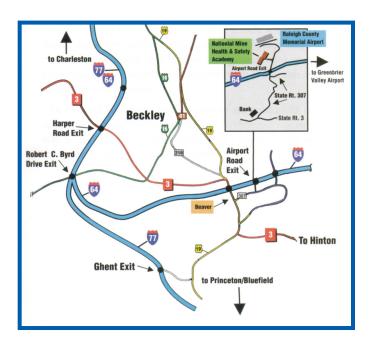
#### By Bus

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 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.

Any company or organization requesting a course to be presented at their worksite will be required to pay the tuition fee of \$84.00 per day for each person and travel expenses for the MSHA instructor.



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

#### **ELECTRICAL HAZARDS**

[EL301M]

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 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: Randy Smith

**Cliff Adkins** 

Course Length: 3 days

**Tuition: \$252.00** 

Dates: Scheduled upon request with

a minimum of 10 attendees,

maximum of 16

# FIRST AID/ CPR/ AED USAGE [SF700G]

Scheduling at Worksite Available Upon Request

Students who successfully complete this course will receive National Safety Council (NSC) Certification.

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

- Basic Life Support (Adult)
- ◆ CPR
- ◆ AED Usage
- ♦ Acting in an Emergency
- ♦ Heart Attack and Chest Pain
- ♦ Bleeding
- Sudden Illness

**Technical Coordinator:** Bret Park

Course Length: 1 day Tuition: \$84.00

Dates: Scheduled upon request with

# FIRST RESPONDER SAFETY / MINE SITE EMERGENCIES WORKSHOP

[GS600G]

Scheduling at Worksite Available Upon Request

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 and Equipment Fires
- Structures In and Around Surface Facilities
- ◆ Use of Mine Equipment for Rescue & Fire Fighting
- ◆ Traffic Control on Surface Mine Roadways
- First Responder Vehicle Maintenance (Brakes & Steering)
- National Incident Management System (NIMS) Overview

#### Surface Mine Hazards Addressed:

- Explosives Storage
- Surge Pile Safety
- ♦ Draw-off Tunnels
- Fuel Storage (stationary and mobile)
- Belt Conveyor and Travelway Safety
- ◆ Electricity
- Preparation Plants and Mills
- Off Road Haul Trucks and End Loaders
- Highwall Safety 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** 

Dates: Scheduled upon request with

# 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

## HAULAGE (SURFACE) (MNM) [HL301M]

Scheduling at Worksite Available Upon Request

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

#### Contents:

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

**Technical Coordinators: Johnnie Tyler** 

Roger Montali

Course Length: 3 days

Tuition: \$252.00

Dates: Scheduled upon request with

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

Scheduling at Worksite Available Upon Request

[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: Teresa Reynolds** 

Vince Nicolau

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 (Mining Emphasis) program offered by the Academy through Marshall University. Courses will be offered in a blended learning environment using distance learning technology. Online courses are also planned to be offered in the Spring, Summer, and Fall 2017 semesters. Marshall University offers courses online through Blackboard. 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. 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 online 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 Kevin Malay by email at malay.kevin@dol.gov or at (304) 256-3539.

Technical Coordinator: Kevin Malay
Dates: Fall 2016

Spring 2017 Summer 2017

# 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.** 

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

#### Contents:

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

Technical Coordinator: David Elkins

Course Length: 8 days

Dates: Mar 14 - 23, 2017, May 9 - 18, 2017 July 11 - 20, 2017, Dec 5 - 14, 2017

# MINE HOIST AND ELEVATOR INSPECTION PROGRAM TRAINING [HS606G]

Scheduling at Worksite Available Upon Request

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

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

#### Contents:

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

**Technical Coordinators: Cliff Adkins** 

**Randy Smith** 

Course Length: 3 days

Tuition: \$252.00

Dates: Scheduled upon request with a

# 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 Coordinators: Jared Adkins** 

Vince Nicolau

Course Length: 3 days

**Tuition: \$252.00** 

Dates: Scheduled upon request with

# 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 Coordinators: Jonah Pritt** 

**Terry Jude** 

Course Length: 2 days

Tuition: \$168.00

Dates: Scheduled upon request with

#### Metal/Nonmetal Mine Safety and Health Inspectors Retraining ILP311MI MSHA PERSONNEL ONLY

Metal and nonmetal mine safety and health inspectors are required to receive a minimum of 48 hours of training every two years. This is the first year of the current two-year training cycle for journeyman metal/nonmetal mine safety and health inspectors.

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

# Bret Park, Coordinator Schedule

October 24 - November 4, 2016

December 5 - 16, 2016

January 23 - February 3, 2017

February 27 - March 10, 2017

April 3 - 14, 2017

July 17 - 28, 2017

# 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

# 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/DOL Inspection Procedures Introduction to Laptop Computers Citations/Order Writing/ Notetaking: Inspector's Portable Applications for Laptops (IPAL) Law, Regulation and Policy Effective Citation Writing Communications

#### **MODULE II (4 WEEKS)**

Mine Act - S/S & 104(d), Part 45 Contractors Training Requirements Parts 46 & 48 Jurisdictional Issues Interviewing Techniques Mine Electricity Communications Accountability Courtroom Procedures Professionalism

#### **MODULE III (4 WEEKS)**

Excavation & Trenching Safety Intro to Chemical Hazards Simulated Inspection Retaining Dams Ground Control I Health I Accident Investigation Scaffold Safety Surface Haulage I Cement Plant Process Slope & Shaft Sinking Inspection

#### **MODULE IV (3 WEEKS)**

IPAL & C/O Review A Drilling and Blasting Fire Protection Articulating Trucks Conference Presentation Preparation Conference Presentations

Mine Act 107(a), 103(g) Mine Rescue/Part 49 Gas Detecting Devices

#### **MODULE V (3 WEEKS)**

**MODULE VI (3 WEEKS)** 

Health II Introduction to Special Investigations/ Mine Act 105(c) 110(c) Underground Ventilation Pressure Vessels & Boilers Industrial Ventilation Haulage II/Cranes

#### Electrical Review Hoisting Mine Act 103(f), 103(k), General Review

Permissibility Material Storage & Handling Ground Control Structural Safety Part 50 Reporting & Auditing Maintenance & Repair Construction Safety

#### **MNM Required Online Training**

#### Prior to Module I:

- Rules to Live By I
- ♦ Rules to Live By II
- Orientation to the National Mine Health and Safety Academy
- ♦ Mine Act Purpose of Agency
- ♦ Employee Health and Safety
- Standards of Conduct
- OJT Application for Entry Level Inspectors
- Wellness Part I

#### Prior to Module II:

- Safety Talks
- Part 46
- Interviewing Techniques
- ♦ Courtroom Procedures
- Part 45 Contractors
- ♦ Part 48
- Jurisdictional Issues
- Mine Electricity
- Communications
- Professionalism

#### Prior to Module III:

- Accident Investigation
- Behavioral Based Safety
- ♦ Root Cause Analysis
- Health I
- Hazard Communications
- Introduction to Chemical Hazards
- Slope and Shaft Sinking

#### Prior to Module IV:

- Mine Rescue/Part 49
- ♦ Fire Protection
- Mine Gases

#### Prior to Module V:

- Underground Ventilation
- Industrial Ventilation
- Gas Detecting Devices

#### Prior to Module VI:

- Structural Safety
- ◆ Tree Cutting
- Hoisting
- ♦ Part 50
- ♦ Electrical Permissibility
- ♦ Drug & Substance Abuse
- ♦ Technical Support Overview
- ♦ Unique Processes
- ♦ Employee Accident Reporting
- ♦ Wellness Part 2
- Safety Programs
- Personal Protective Equipment

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

(Dates include travel days)
MSHA PERSONNEL ONLY

#### **Group M37**

Module V September 12, 2016 – October 7, 2016 Module VI January 1, 2017 – February 3, 2017 Graduation February 2, 2017

#### **Group M38**

Module V October 19, 2016 – November 4, 2016 Module VI January 24, 2017 – February 9, 2017 Graduation February 8, 2017

#### **Group M39**

Module V September 14, 2016 – September 30, 2016 Module VI November 28, 2016 – December 15, 2016 (Thursday Departure)

#### **Group M40**

Module IV September 12, 2016 – October 7, 2016

Module V November 28, 2016 – December 16, 2016

Module VI February 1, 2017 – February 16, 2017 (Wednesday arrival)

#### **Group M41**

Module IV October 17, 2016 – November 4, 2016 Module V January 23, 2017 – February 17, 2017 Module VI April 23, 2017 – May 12, 2017 (Sunday arrival)

#### **Group M42**

Module IV January 23, 2017 – February 17, 2017 Module V March 27, 2017 – April 14, 2017 Module VI June 4, 2017 – June 23, 2017 (Sunday arrival)

#### **Group M43**

Module II	October 17, 2016 – November 4, 2016
Module III	January 23, 2017 – February 17, 2017

Module IV April 24, 2017 – May 12, 2017

Module V July 9, 2017 – July 28, 2017 (Sunday arrival)

Module VI September 17, 2017 – October 6, 2017 (Sunday arrival)

#### **Group M44**

Module II	October 17, 2016 - November 10, 2016
Module III	January 30, 2017 – February 17, 2017
3.6. 1.1. ****	3.5 4 2045 3.5 40 2045

Module IV May 1, 2017 – May 19, 2017

Module V July 16, 2017 – August 4, 2017 (Sunday arrival)

Module VI October 15, 2017 – November 3, 2017 (Sunday arrival)

# 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 67 and 68.

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.

Any company or organization requesting a course to be presented at their worksite will be required to pay the tuition fee of \$84.00 per day for each person and travel expenses for the MSHA instructor.



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

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

[EL600G]

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

#### Contents:

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

Technical Coordinators: Cliff Adkins

**Randy Smith** 

Course Length: 1 day

**Tuition: \$84.00** 

Dates: Scheduled upon request with

### **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**

**Roger Montali** Technical Coordinator:

> Course Length: 3 days **Tuition:** \$252.00

> > Scheduled upon request with Dates:

# ELECTRICAL SAFETY FOR COAL MINERS

[EL707C]

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 MSHA coal inspection personnel with limited or no electrical expertise.

#### **Contents:**

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

NOTE: This course is not intended for Electrical Specialists.

**Technical Coordinators: Randy Smith** 

**Cliff Adkins** 

Course Length: 3 days

Tuition: \$252.00

Dates: Scheduled upon request with

# FIRST AID/ CPR/ AED USAGE [SF700G]

Scheduling at Worksite Available Upon Request

Students who successfully complete this course will receive National Safety Council (NSC) Certification.

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

- ♦ Basic Life Support (Adult)
- ◆ CPR
- ♦ AED Usage
- ♦ Acting in an Emergency
- ♦ Heart Attack and Chest Pain
- ♦ Bleeding
- ♦ Sudden Illness

Technical Coordinator: Bret Park

Course Length: 1 day

**Tuition:** \$84.00

Dates: Scheduled upon request with

# FIRST RESPONDER SAFETY / MINE SITE EMERGENCIES WORKSHOP

[GS600G]

Scheduling at Worksite Available Upon Request

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 and Equipment Fires
- Structures In and Around Surface Facilities
- Use of Mine Equipment for Rescue & Fire Fighting
- Traffic Control on Surface Mine Roadways
- First Responder Vehicle Maintenance (Brakes & Steering)
- National Incident Management System (NIMS) Overview

#### **Surface Mine Hazards Addressed:**

- Explosives Storage
- Surge Pile Safety
- Draw-off Tunnels
- ◆ Fuel Storage (stationary and mobile)
- Belt Conveyor and Travelway Safety
- ♦ Electricity
- Preparation Plants and Mills
- ♦ Off Road Haul Trucks and End Loaders
- Highwall Safety 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

Dates: Scheduled upon request with

#### 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

#### 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 Coordinators: Chip Booth

**Marcus Ramirez** 

Course Length: 3 days

**Tuition: \$252.00** 

Dates: Scheduled upon request with

#### 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: Teresa Reynolds** 

**Vince Nicolau** 

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
- ♦ Basic Longwall Electrical Systems
- Degasification
- Respirable Dust Control
- Inspection Procedures (Special Emphasis)
- Regulations

Technical Coordinators: Jon Braenovich

**Matilda Collins** 

Course Length: 1 day

**Tuition: \$84.00** 

Dates: Scheduled upon request with

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

[NEMU003]

Courses will be offered pursuant to the Masters of Safety Degree (Mining Emphasis) program offered by the Academy through Marshall University. Courses will be offered in a blended learning environment using distance learning technology. Online courses are also planned to be offered in the Spring, Summer, and Fall 2017 semesters. Marshall University offers courses online through Blackboard. 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. 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 online 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 Kevin Malay by email at malay.kevin@dol.gov or at (304) 256-3539.

Technical Coordinator: Kevin Malay
Dates: Fall 2016

Spring 2017 Summer 2017 Fall 2017

### 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.** 

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

#### Contents:

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

Technical Coordinator: David Elkins

Course Length: 8 days

Dates: Mar 14 - 23, 2017, May 9 - 18, 2017 July 11 - 20, 2017, Dec 5 - 14, 2017

# MINE EXPLOSION PREVENTION [VN701G]

Scheduling at Worksite Available Upon Request

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

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

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

**Technical Coordinator:** Jonah Pritt

Course Length: 1 day
Tuition: \$84.00

Dates: Scheduled upon request with

# MINE HOIST AND ELEVATOR INSPECTION PROGRAM TRAINING

[HS606G]

Scheduling at Worksite Available Upon Request

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

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

#### Contents:

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

**Technical Coordinators: Cliff Adkins** 

**Randy Smith** 

Course Length: 3 days

Tuition: \$252.00

**Dates: At the Academy's Discretion** 

Scheduled upon request with a

# MINE VENTILATION [VN700G]

Scheduling at Worksite Available Upon Request

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

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

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

**Technical Coordinators: Jonah Pritt** 

**Keith Stone** 

Course Length: 3 days

Tuition: \$252.00

Dates: Scheduled upon request with

# 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: Donald Booth** 

**Marcus Ramirez** 

Course Length: 3 days

**Tuition: \$252.00** 

Dates: Scheduled upon request with

#### **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 Coordinator: Jon Braenovich

Course Length: 1 day
Tuition: None

Dates: May 31, 2017

# **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: Roger Montali

Course Length: 2 days

**Tuition: \$168.00** 

Dates: Scheduled upon request with

# 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 Coordinator: Johnnie Tyler** 

Course Length: 3 days
Tuition: \$252.00

Dates: Scheduled upon request with

#### 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: Jonah Pritt** 

**Keith Stone** 

Course Length: 3 days

Tuition: \$252.00

Dates: Scheduled upon request with

# UNDERGROUND ELECTRICAL CIRCUIT PROTECTION OVERVIEW

[EL606C]

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: Randy Smith

Course Length: 1 day
Tuition: \$84.00

Dates: Scheduled upon request with

# UNDERGROUND HAULAGE, TRANSPORTATION, AND MACHINERY (COAL)

[HL321C]

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: Brandon Ellison** 

**Cliff Adkins** 

Course Length: 2 days

**Tuition: \$168.00** 

Dates: Scheduled upon request with

## WORKPLACE EXAMINATIONS [VN702G]

Scheduling at Worksite Available Upon Request

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

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

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

Technical Coordinators: Jonah Pritt

**Keith Stone** 

Course Length: 1 day

**Tuition: \$84.00** 

Dates: Scheduled upon request with

# 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 48 hours 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)

Brandon Ellison, Coordinator Schedule

February 14 - 16, 2017

May 16 - 18, 2017

July 11 - 13, 2017

August 15 - 17, 2017

VTC Training
Districts 2 & 3

**TBD** 

Districts 5 & 8

**TBD** 

# Subjects for Coal Mine Safety and Health Inspectors Retraining:

Computer Data Retrieval Issues
Seals and Bleeders

CO/AMS Systems
Electrical Enforcement Consistency
Law, Regulation and Policy
Fire Protection on Conveyor Belt Lines
Part 48
Diesel
Accountability Issues

Surface Coal Mine Safety and Health Inspectors (LP312C)

Johnnie Tyler, Coordinator Schedule

**TBD** 

## **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

## **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
Introduction to MSHA/
DOL
Inspection Procedures

Law, Regulation & Policy Introduction to Laptops Effective Citation Writing Citations/Order Writing and Notetaking: Inspector's Portable Applications for Laptops (IPAL)

#### **MODULE II (4 weeks)**

Mine Act - S&S & 104(d), Part 45 Contractors IPAL C/O Review A Part 50 Reporting Requirements & Auditing Introduction to Special Investigations/Mine Act -105(c), 110(c) Workplace Examination Combustible Materials and Rockdusting Conference Presentation Preparation Noise/Respirable Dust

Professionalism
Part 48 Training
Requirements
Conference Presentation
Communications

## **MODULE III (4 weeks)**

Jurisdictionl Issues Mine Electricity Simulated Inspection Hoisting Accountability
Ventilation I/ Mine Maps/
Longwall
Roof Control

Mine Act 107(a), 103(g) Ground Control

## **MODULE IV (3 weeks)**

Electrical Permissibility Accident Investigation

Diesel Permissibility Underground Haulage IPAL Review B Ventilation II

## **MODULE V (3 weeks)**

Interviewing Techniques Surface Haulage Courtroom Procedures Drilling & Blasting Slope & Shaft Sinking

## **MODULE VI (3 weeks)**

Electrical Review Fire Protection Surface Structure Articulating Trucks Permissibility Fire Detection & Monitoring Mine Rescue/Part 49

Impoundments Mine Act 103(f), 103(k) General Review

## **Coal Entry Level Required Online Training**

#### Prior to Module I:

- Orientation to the National Mine Health and Safety Academy
- ♦ Employee Health and Safety
- Standards of Conduct
- ♦ Employee Accident Reporting
- OJT Application for Entry Level Inspectors
- Rules to Live By I
- ♦ Rules to Live By II
- ♦ Rules to Live By III
- Wellness Part I

#### Prior to Module II:

- Part 45 Contractors
- Safety Talks
- ♦ Part 50
- ♦ Workplace Exams
- Miscellaneous Health Standards
- Hazard Communications
- Noise
- Respirable Dust
- Professionalism
- ♦ Part 48
- Communications

#### Prior to Module III:

- Mine Electricity
- ♦ Hoisting
- ♦ Ventilation I

#### Prior to Module IV:

- Electrical Permissibility
- Diesel Permissibility
- Underground Haulage
- ♦ Accident Investigation
- Root Cause Analysis
- Behavioral Based Safety

#### Prior to Module V:

- Interviewing Techniques
- ♦ Courtroom Procedures
- ♦ Surface Haulage
- Drilling and Blasting
- ♦ Slope and Shaft Sinking

#### Prior to Module VI:

- Impoundments
- ♦ Fire Protection
- Structural Safety
- ◆ Tree Cutting
- Fire Detection and Monitoring
- ♦ Mine Rescue/Part 49
- Miscellaneous Safety Standards
- ♦ Wellness Part II
- ♦ Technical Support Overview
- Mine Gases

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

(Dates include travel days)

## **Group 105**

Module VI September 12, 2016 – September 30, 2016 Graduation

September 29, 2016

#### **Group 106**

September 12, 2016 - October 7, 2016 Module V Module VI November 27, 2016 - December 16, 2016

Graduation December 15, 2016

#### Group 107

Module V September 12, 2016 – September 30, 2016 Module VI January 22, 2017 - February 10, 2017

Graduation February 9, 2017

## **Group 108**

Module II September 12, 2016 – October 8, 2016 November 28, 2016 - December 16, 2016 Module III Module IV January 23, 2017 – February 17, 2017 Module V March 27, 2017 - April 14, 2017 Module VI June 11, 2017 – June 30, 2017

Graduation June 29, 2017

## **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 Coordinators:

Vince Nicolau (304) 256-3323 or Teresa Reynolds (304) 256-3209

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 Coordinators: Vince Nicolau** 

Teresa Reynolds

Course Length: 2 days

Tuition: \$168.00

**Dates: February 22 - 23, 2017** 

# 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 handson 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 Coordinators: Teresa Reynolds** 

**Vince Nicolau** 

Course Length: 2 days

**Tuition: \$168.00** 

Dates: April 11 - 12, 2017

# MICROSOFT® EXCEL 2010 – ADVANCED [CT702G]

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

## Covers the following more advanced Excel topics:

- Logical and Statistical Functions
- Financial and Date Functions
- ♦ Lookups and Date Functions
- Advanced Data Management
- Exporting and Importing Data
- Analytical Tools
- Macros and Custom Functions

**Technical Coordinators: Teresa Reynolds** 

**Vince Nicolau** 

Course Length: 2 days

**Tuition: \$168.00** 

Dates: June 6 - 7, 2017

## MICROSOFT® POWERPOINT 2010 [CT711G]

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. Power-Point 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 Coordinators: Vince Nicolau** 

Teresa Reynolds

Course Length: 2 days

**Tuition: \$168.00** 

Dates: June 13 - 14, 2017

## MICROSOFT® WORD 2010 [CT707G]

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 Coordinators: Vince Nicolau** 

Teresa Reynolds

Course Length: 2 days

**Tuition:** \$168.00

Dates: September 6 - 7, 2017

# 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.

Any company or organization requesting a course to be presented at their worksite will be required to pay the tuition fee of \$84.00 per day for each person and travel expenses for the MSHA instructor.

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: Jared Adkins** 

Course Length: 4 hours

**Tuition: \$48.00** 

Dates: November 9, 2016

May 11, 2017 August 17, 2017

## CONTINUOUS PERSONAL DUST MONITOR (CPDM) MAINTENANCE AND CALIBRATION CERTIFICATION [IH404G]

Scheduling at Worksite Available Upon Request

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

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

#### Contents:

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

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

#### Hands-on Instructions:

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

**Technical Coordinator: Donald Booth** 

Course Length: 8 hours

Tuition: \$84.00

Dates: Nov 9, 2016, Dec 14, 2016, Jan 12, 2017,

Mar 23, 2017, Apr 2017 TBD, Aug 23, 2017,

Sept 14, 2017, Dec 13, 2017

Scheduled upon request with a minimum of 10 attendees, maximum of 18

# CONTINUOUS PERSONAL DUST MONITOR (CPDM) SAMPLING CERTIFICATION

Scheduling at Worksite Available Upon Request

[IH403G]

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

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

#### Contents:

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

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

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

- Inspection
- ◆ Use

**Technical Coordinator: Donald Booth** 

Course Length: 8 hours

**Tuition: \$84.00** 

Dates: Nov 8, 2016, Dec 13, 2016, Jan 11, 2017,

Mar 22, 2017, Apr 2017 TBD, Aug 22, 2017,

Sept 13, 2017, Dec 12, 2017

Scheduled upon request with a minimum of 10 attendees, maximum of 18

## FIRST AID/ CPR/ AED USAGE [SF700G]

Scheduling at Worksite Available Upon Request

Students who successfully complete this course will receive National Safety Council (NSC) Certification.

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

- ♦ Basic Life Support (Adult)
- ◆ CPR
- AED Usage
- Acting in an Emergency
- ♦ Heart Attack and Chest Pain
- ♦ Bleeding
- ♦ Sudden Illness

Technical Coordinator: Bret Park

Course Length: 1 day

**Tuition:** \$84.00

Dates: Scheduled upon request with

# 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: Jared Adkins** 

Course Length: 8 hours

**Tuition: \$84.00** 

Dates: November 8, 2016

May 9, 2017

August 15, 2017

## RESPIRABLE COAL MINE DUST SAMPLER CALIBRATION/MAINTENANCE CERTIFICATION

Scheduling at Worksite Available Upon Request

[IH602C]

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 Coordinator: Donald Booth

Course Length: 8 hours
Tuition: \$84.00

Dates: May 17, 2017

July 12, 2017

# 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 Coordinator: Donald Booth** 

Course Length: 8 hours
Tuition: \$84.00

Dates: May 16, 2017

July 11, 2017

# 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 will then be scheduled.

Any company or organization requesting a course to be presented at their worksite will be required to pay the tuition fee of \$84.00 per day for each person and travel expenses for the MSHA instructor.



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: Joe Mackowiak** 

Course Length: 3 days
Tuition: \$252.00

Dates: Scheduled upon request with a minimum

of 10 attendees, maximum of 16

# 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 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: Randy Smith** 

**Cliff Adkins** 

Course Length: 3 days

**Tuition: \$252.00** 

Dates: Scheduled upon request with

## ELECTRICAL SAFETY FOR METAL/NONMETAL MINERS

[EL601M]

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 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: Randy Smith

**Cliff Adkins** 

Course Length: 2 days

**Tuition: \$168.00** 

Dates: Scheduled upon request with

## FIRST AID/ CPR/ AED USAGE [SF700G]

Scheduling at Worksite Available Upon Request

Students who successfully complete this course will receive National Safety Council (NSC) Certification.

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

- Basic Life Support (Adult)
- ◆ CPR
- ◆ AED Usage
- ♦ Acting in an Emergency
- ♦ Heart Attack and Chest Pain
- ♦ Bleeding
- Sudden Illness

Technical Coordinator: Bret Park

Course Length: 1 day

**Tuition:** \$84.00

Dates: Scheduled upon request with

# **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 Coordinator: Donald Booth

Course Length: 1 day

**Tuition:** \$84.00

Dates: Scheduled upon request with

## 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: Donald Booth** 

**Marcus Ramirez** 

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 and Developing Criterion Test Items
- Outlining the Training Content
- Determining the Instructional Methods
- Developing and Using Training Aids
- ♦ Developing a Lesson Plan
- Using Facilitation Skills
- Part 48 Requirements

Technical Coordinator: Bret Park

Course Length: 3 days

**Tuition: \$252.00** 

Dates: Dec 13 - 15, 2016 March 21 - 23, 2017

June 27 - 29, 2017 September 12 - 14, 2017

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

## INTRODUCTION TO MINING

[MS701G]

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

#### Contents:

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

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

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

**Technical Coordinators: Chip Clay** 

**Nathan Neely** 

Course Length: 2 days Tuition: \$168.00

Dates: July 25 - 26, 2017

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

## LAW/REGULATION/POLICY, CITATION/ ORDER WRITING, INSPECTION PROCEDURES [LP710G]

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

#### Contents:

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

Technical Coordinator: Brandon Ellison

Course Length: 3 days
Tuition: \$252.00

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

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

[NEMU003]

Courses will be offered pursuant to the Masters of Safety Degree (Mining Emphasis) program offered by the Academy through Marshall University. Courses will be offered in a blended learning environment using distance learning technology. Online courses are also planned to be offered in the Spring, Summer, and Fall 2017 semesters. Marshall University offers courses online through Blackboard. 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. 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 online 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 Kevin Malay by email at malay.kevin@dol.gov or at (304) 256-3539.

Technical Coordinator: Kevin Malay

Dates: Fall 2016, Spring 2017

Summer 2017, Fall 2017

# MINE ACCIDENT INVESTIGATION TECHNIQUES

[IV604G]

Scheduling at Worksite Available Upon Request

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

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

Technical Coordinator: David Elkins

Course Length: 2 days

**Tuition:** \$168.00

# 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

# MINE EXPLOSION PREVENTION [VN701G]

Scheduling at Worksite Available Upon Request

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

### Content will include but not limited to:

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

Technical Coordinators: Jonah Pritt

**Keith Stone** 

Course Length: 1 day

**Tuition: \$84.00** 

Dates: Scheduled upon request with

# MINE HOIST AND ELEVATOR INSPECTION PROGRAM TRAINING [HS606G]

Scheduling at Worksite Available Upon Request

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

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

### Contents:

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

**Technical Coordinators: Cliff Adkins** 

**Randy Smith** 

Course Length: 3 days

Tuition: \$252.00

Dates: Scheduled upon request with a

### 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 6 attendees

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

# MINE RESCUE VISIO MAPPING AND MAP SCORING TRAINING

[ME609G]

Scheduling at Worksite Available Upon Request

This course is for all interested Mine Rescue Team Members, Mine Rescue Problem Designers, Mine Rescue Map Judges, and persons involved in mine accident investigation work. This class will be scaled and tailored to the students attending specific to their needs (accident investigation, mine rescue team members, mine rescue judges, ect. We will try to make the class as job related to each group as possible.

#### Contents:

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

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

Technical Coordinator: Chip Clay

Course Length: 1 day
Tuition: \$84.00

Dates: Scheduled upon request with

a minimum of 2 attendees,

maximum of 6.

# MINE VENTILATION [VN700G]

Scheduling at Worksite Available Upon Request

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

### Content will include but not limited to:

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

**Technical Coordinators: Jonah Pritt** 

**Keith Stone** 

Course Length: 3 days

**Tuition: \$252.00** 

Dates: Scheduled upon request with

# 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: Donald Booth** 

**Marcus Ramirez** 

Course Length: 3 days

Tuition: \$252.00

Dates: Scheduled upon request with



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

### Contents:

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

Technical Coordinator: Roger Montali

Course Length: 6 hours Tuition: \$84.00

Dates: Scheduled upon request with

# 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 Coordinator: Johnnie Tyler

Course Length: 3 days

**Tuition:** \$252.00

Dates: Scheduled upon request with

# **WORKPLACE EXAMINATIONS** [VN702G]

Scheduling at Worksite Available Upon Request

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

### Content will include but not limited to:

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

**Technical Coordinators: Jonah Pritt** 

**Keith Stone** 

Course Length: 1 day

**Tuition: \$84.00** 

Dates: Scheduled upon request with

# Seminars/Workshops for MSHA and the Mining Industry

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



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: Roger Montali

Course Length: 2 days
Tuition: None

Dates: January 18 - 19, 2017

# FIRST RESPONDER SAFETY / MINE SITE EMERGENCIES WORKSHOP

[GS600G]

Scheduling at Worksite Available Upon Request

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 and Equipment Fires
- Structures In and Around Surface Facilities
- Use of Mine Equipment for Rescue & Fire Fighting
- Traffic Control on Surface Mine Roadways
- First Responder Vehicle Maintenance (Brakes & Steering)
- ♦ National Incident Management System (NIMS) Overview

### Surface Mine Hazards Addressed:

- ♦ Explosives Storage
- Surge Pile Safety
- ♦ Draw-off Tunnels
- ♦ Fuel Storage (stationary and mobile)
- Belt Conveyor and Travelway Safety
- ♦ Electricity
- Preparation Plants and Mills
- Off Road Haul Trucks and End Loaders
- Highwall Safety 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

Dates: Scheduled upon request with

# 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

### **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: Jon Braenovich

**Matilda Collins** 

Course Length: 1 day

**Tuition: None** 

**Dates: June 7, 2017** 

### 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 others.

### 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: TBD

# TRAM/NATIONAL MINE INSTRUCTORS SEMINAR [GS501G]

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

#### Contents:

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

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

Technical Coordinator: Cheryl McGill

Course Length: 2½ days
Tuition: None

Dates: October 11 - 13, 2016

October 10 - 12, 2017

### **Technical Specialists Training**

MSHA mine safety and health inspectors, supervisors, and specialists 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:

ACRI/CLR Training [LP303G] May 8 - 12, 2017

Accident Investigation TBD

Administrative Staff Meeting [GS706G]
April 10 - 14, 2017

Assistant District Manager Meeting/Training TBD

Coal Assistant District Managers Meeting [GS400ADM]
TBD

Coal Field Office Supervisors [GS704G] July 11 - 13, 2017

**Coal MERD** 

November 14 - 18, 2016

MSHA Dam Safety Training [IM504G]
Coordinator: Jared Adkins
May 2 - 4, 2017

District Manager Meeting/Training March 20 - 24, 2017

### **Electrical Specialists**

March 13 - 17, 2017

### Family Liaison Training [GS511G] TBD

Health Specialists [IH401G]
June 5 - 9, 2017

# MNM Annual Field Office Supervisors [GS701MNM] TBD

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

[LP311M - 56 hours]

**Coordinator: Bret Park** 

October 24 - November 4, 2016, April 3 - 14, 2017

# MNM Managers Meeting (2) [GS700MNM] TBD

### MNM MERD Training [GS702MNM] TBD

# MSHA Mine Rescue Team Training [ME707G] TBD

# Roof Control Specialists [RC401C - 21 hours] Coordinators: Jon Braenovich, Matilda Collins April 25 - 28, 2017

### **Special Investigators [IV402G]**

**Coordinator: TBD** 

- » Basic SI Module I February 28 - March 16, 2017
- » SI Recertification TBD

- » Complaint Processor Certification Training June 20 - 22, 2017
- » Basic SI Module II August 1 - 10, 2017

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

[LP312C - 56 hours]

**Coordinator: Johnnie Tyler** 

**TBD** 

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

[LP311C - 56 hours]

**Coordinator: Brandon Ellison** 

February 14 - 16, 2017

May 16 - 18, 2017

July 11 - 13, 2017

August 15 - 17, 2017

# VTC Training Districts 2 & 3

**TBD** 

### Districts 5 & 8

**TBD** 

### **Ventilation Specialist**

March 28 - 30, 2017

# Courses and Seminars/Workshops Alphabetically

	raye
Accident Prevention Techniques	90
Annual Retraining for Impoundment Qualificati	on82
Atmospheric Monitoring Systems (AMS) with E on Fire Protection	
Blasting Seminar	
Blasting (Surface) (Coal)	46
Blasting (Surface) (MNM)	23
Continuous Personal Dust Monitor (CPDM)	
Maintenance and Calibration Certification	83
Continuous Personal Dust Monitor (CPDM)	
Sampling Certification	84
Electrical Hazards	24
Electrical Safety for Coal Miners	47, 91
Electrical Safety for Metal/Nonmetal Miners	92
First Aid/ CPR/ AED Usage	25, 48, 85, 93
First Responder Safety/Mine Site Emergencies Workshop	
Ground Control Hazards	
Haulage (Surface) (Coal)	
Haulage (Surface) (MNM)	
Hazard Communication (HazCom)	
Industrial Hygiene	51
Industrial Hygiene: Sampling for Respirable	
Silica Dust and Noise	95
Inspector's Portable Applications for Laptops	
(IPAL) Review (MNM and Coal)	29, 52
Instructor Training Workshop (Part 48)	96

P	age
Introduction to Mining	97
Law/Regulation/Policy, Citation/Order Writing,	
Inspection Procedures	98
Longwall Mining and Inspection Procedures	53
Marshall University Masters of Safety Degree 30, 54	ł, 99
Microsoft® Excel 2010 – Basic	76
Microsoft® Excel 2010 – Intermediate	77
Microsoft® Excel 2010 – Advanced	78
Microsoft® PowerPoint 2010	79
Microsoft® Word 2010	80
Mine Accident Investigation and Report Writing 31	, 55
Mine Accident Investigation Techniques	100
Mine Construction, Maintenance, and Repairs Safety	101
Mine Construction, Maintenance, and Repairs Safety	
Workshop	.114
Mine Explosion Prevention56,	102
Mine Hoist and Elevator Inspection Program	
Training	103
Mine Rescue Training	104
Mine Rescue Visio Mapping and Map Scoring Training	105
Mine Ventilation 58,	106
Noise Hazards, Regulation, and Control 59,	107
Off Road Tire Safety	108
Qualification for Impoundment Inspection	86
Respirable Coal Mine Dust Sampler Calibration/	
Maintenance Certification	87
Respirable Coal Mine Dust Sampling Certification	88
Roof Control Seminar60,	115
Slone and Shaft Sinking Safety	61

	Page
Surface Facilities and Coal Preparation	62, 109
Surface Haulage Workshop	116
Tailings Dam and Waste Pile Inspection -	
Metal/Nonmetal	33
TRAM/National Mine Instructors Seminar	117
Underground Diesel Equipment/Ventilation	63
Underground Electrical Circuit Protection Overview	64
Underground Haulage, Transportation, and	
Machinery (Coal)	65
Underground Ventilation for Metal/Nonmetal Mines	34
Workplace Examinations	.66. 110

# Schedule of Academy Events By Date

### October 9 - 15, 2016

◆ TRAM/National Mine Instructors Seminar 10/11-13/2016

### October 23 - November 4, 2016

 Metal/Nonmetal Journeyman Training 10/24 - 11/4/2016

### November 6 - 12, 2016

- ◆ Continuous Personal Dust Monitor Sampling Certification 11/8/2016
- Continuous Personal Dust Monitor Maintenance and Calibration Certification 11/9/2016

### December 11 - 17, 2016

- ◆ Continuous Personal Dust Monitor Sampling Certification 12/13/2016
- Continuous Personal Dust Monitor Maintenance and Calibration Certification 12/14/2016
- Instructor Training Workshop 12/13-15/2016

### January 8 - 14, 2017

- Continuous Personal Dust Monitor Sampling Certification 1/11/2017
- Continuous Personal Dust Monitor Maintenance and Calibration Certification 1/12/2017

### **January 15 – 21, 2017**

Blasting Seminar1/18-19/2017

### February 12 - 18, 2017

◆ UG CMI Inspector Retraining 2/14-16/2017

### February 19 - 25, 2017

♦ Microsoft® Excel 2010 - Basic 2/22-23/2017

### February 26 - March 4, 2017

 Basic SI Module I 2/28-3/16/2017

### March 12 - 18, 2017

♦ Mine Accident Investigation & Report Writing 3/14-23/2017

### March 19 - 25, 2017

 Instructor Training Workshop 3/21-23/2017

- ◆ Continuous Personal Dust Monitor Sampling Certification 3/22/2017
- Continuous Personal Dust Monitor Maintenance and Calibration Certification 3/23/2017

### March 26 - April 1, 2017

♦ Ventilation Specialist 3/28-30/2017

### April 2 - 8, 2017

 MNM Journeyman Retraining 4/3-14/2017

### April 9 - 15, 2017

 Microsoft Excel 2010 – Intermediate 4/11-12/2017

### April 23 - 29, 2017

♦ Roof Control Specialist 4/25-28/2017

### May 7 - 13, 2017

- Mine Accident Investigation and Report Writing 5/9-18/2017
- Qualification for Impoundment Inspection 5/9/2017
- SI Recertification 5/10-19/2017
- Annual Retraining for Impoundment Qualification 5/11/2017

### May 14 - 20, 2017

- UG CMI Inspector Retraining 5/16-18/2017
- Respirable Coal Mine Dust Sampling Certification 5/16/2017
- Respirable Coal Mine Dust Sampler Calibration/ Maintenance Certification
   5/17/2017

### June 4 – 10, 2017

- Microsoft Excel 2010 Advanced 6/6-7/2017
- Roof Control Seminar 6/7/2017

### June 11 - 17, 2017

 Microsoft PowerPoint 2010 6/13-14/2017

### June 18 - 24, 2017

◆ Complaint Processor Certification 6/20-22/2017

### June 25 - July 1, 2017

◆ Instructor Training Workshop 6/27-29/2017

### July 9 - 15, 2017

♦ UG CMI Journeyman 7/11-13/2017

- Mine Accident Investigation and Report Writing 7/11-20/2017
- Respirable Coal Mine Dust Sampling Certification 7/11/2017
- Respirable Coal Mine Dust Monitor Maintenance Calibration and Certification 7/12/2017

### July 23 - 29, 2017

 Introduction to Mining 7/25-26/2017

### July 30 - August 5, 2017

♦ Basic SI Module II 8/1-10/2017

### August 13 - 19, 2017

- Qualification for Impoundment Inspection 8/15/2017
- Annual Retraining for Impoundment Qualification 8/17/2017
- UG CMI Inspector Retraining 8/15-17/2017

### August 20 - 26, 2017

- ♦ Continuous Personal Dust Monitor Sampling Certification 8/22/2017
- Continuous Personal Dust Monitor Maintenance and Calibration Certification 8/23/2017

### September 3 - 9, 2017

 Microsoft Word 2010 9/6-7/2017

### September 10 - 16, 2017

- Instructor Training Workshop 9/12-14/2017
- ◆ Continuous Personal Dust Monitor Sampling Certification 9/13/2017
- Continuous Personal Dust Monitor Maintenance and Calibration Certification 9/14/2017

### October 8 - 14, 2017

 TRAM/National Mine Instructors Seminar 10/10-12/2017

### December 3 - 9, 2017

 Mine Accident Investigation and Report Writing 12/5-14/2017

### December 10 - 16, 2017

- ◆ Continuous Personal Dust Monitor Sampling Certification 12/12/2017
- Continuous Personal Dust Monitor Maintenance and Calibration Certification 12/13/2017

### Metal/Nonmetal Scheduled Training

- MMN Managers Meeting (2)
  - TBD
- MMN Annual Field Office Supervisors Retraining
  - TBD
- ♦ MSHA Mine Rescue Team Training
  - TBD
- Supervisory Meeting
  - TBD
- Industrial Hygiene
  - TBD
- MNM MERD Training
  - TBD
- MSHA Mine Rescue Team Training
  - TBD

### **Coal Scheduled Training**

- Family Liaison Training
  - TBD
- Health Supervisors Meeting
  - 1 Per Quarter
- ACRI/Conference Litigation (CLR) Training May 8 - 12, 2017
- ◆ Coal Field Office Supervisors July 10 - 17, 2017
- MSHA Dam Safety Training/Impoundment Specialist May 2 - 4, 2017
- CMSH MERD/Manager/Supervisor Training November 14 - 18, 2016
- CMSH Managers Meeting
  - (2) TBD

### **EPD Scheduled Training**

- ♦ EFSMS Team Training (2) TBD
- ♦ EPD Managers/Supervisors Meeting TBD
- ♦ JAH Mine Rescue Meeting (2) TBD
- ♦ EPD Managers TBD
- ♦ EFSMS Annual Supervisors Training TBD
- ♦ EFSMS Training Specialists (2) TBD

### **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 in	terest.
Coal - Surface	Coal - Underground
Metal/Nonmetal - Surface	Metal/Nonmetal - Underground
Both	
Other (specify)	
Name	
Address	
Telephone	Fax:
(area code)	(area code)
E-mail address:	

Please complete this form and return to:

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

FAX: (304) 256-3247

### **Enrollment Form**

Please complete this form and return to:

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

FAX: (304) 256-3251

I plan to atten	d the		<del> </del>
course on the	following date	es:	
Arrival Date:			
I will I	will not need I	odging on these d	lates.
Name:	(I.A.CIT)	(FIRST)	(AMDDIE)
Title:	(LAST)	(FIRST)	(MIDDLE)
Address:			
		Zip Code:	
Telephone: _		Fax:	
(	area code)	(area	code)
E-mail addre	ss:		
Confirmation	n will be maile	ed or faxed to yo	u.
Confirmed by	:	Date:	

### **Other Available Catalogs**

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

National Mine Health and Safety Academy ATTN: Printing and Property Management Branch

1301 Airport Road Beaver, West Virginia 25813-9426

> CALL: (304) 256-3257 FAX: (304) 256-3368

E-MAIL: MSHADistributionCenter@dol.gov

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

(Number)			
	Catalog of Trainir	ng Products f	or the Mining Industry
	Courses for MSH (addition	A and the Mi al copies)	ning Industry
Name:			
Organiza	tion:		
Address:		· · · · · · · · · · · · · · · · · · ·	
City:			
State:		Zip Code: _	
Telephon	e:	Fax:	
	(area code)		(area code)

Please note: Catalogs referred to on this page are also available online at www.msha.gov

Visit the Department of Labor at www.dol.gov

# U.S. Department of Labor

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

Official Business

FIRST-CLASS MAIL POSTAGE & FEES PAID

POSTAGE & FEES PAID U.S. DEPARTMENT OF LABOR Permit No. G-745