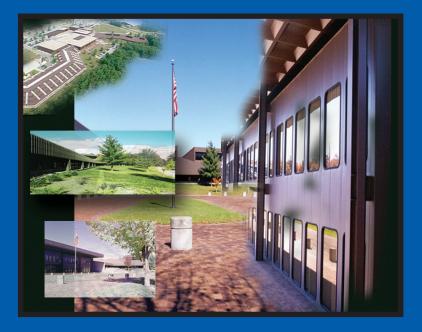
Courses for MSHA and the Mining Industry



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

FY 2012



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

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

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Welcome

Welcome to the 2012 edition of Courses for MSHA and the Mining Industry.

Our Nation's mines produce more material than ever before. Sophisticated machinery and equipment allow miners to work in areas that are often complex and dangerous. Mining technology changes constantly and every mine is unique. The mining industry is experiencing a need for new miners to replace the miners who are retiring and also due to the increased use of mining products. The replacements are inexperienced and must be trained prior to their employment. This is why mine safety and health inspections, technical and engineering assistance, and education and training are such important elements in ensuring a safe workplace. These are the three elements of MSHA's triangle of success.

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

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

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

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

History

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

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

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

The Academy's Purpose and Goal

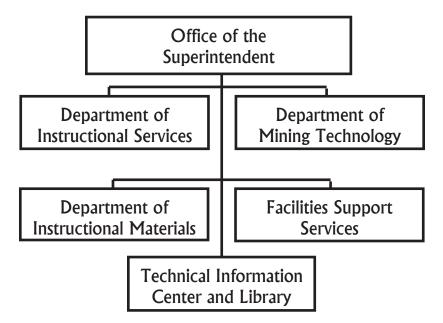
The purpose of the Academy is to design, develop, and conduct instructional programs that will assist in government, industry, and labor efforts to reduce injuries, illnesses, and fatalities in the mineral industries.

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

Academy Organization

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

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



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

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

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

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

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

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

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

The Academy Campus

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

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

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

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

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

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

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

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

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

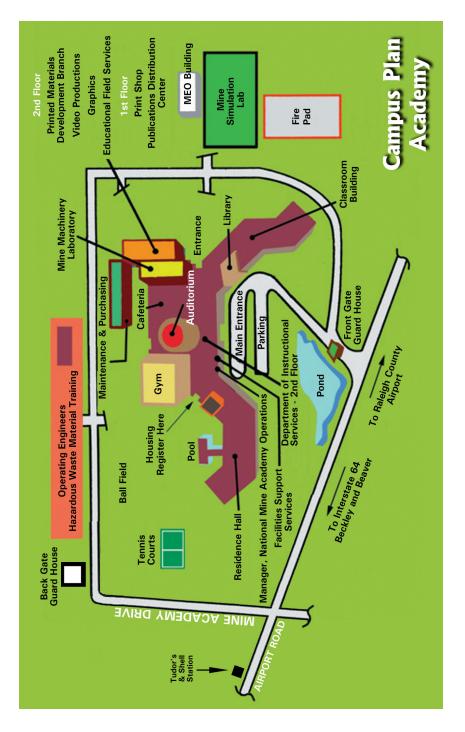
The **Maintenance and Equipment Building** is used to maintain Academy equipment.

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

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

Security

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



Academic Programs

MSHA Training

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

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

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

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

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

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

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

Training for Industry

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

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

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

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

Academic Life

Class Attendance

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

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

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

Grading System

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

Units of Credit/Certificates of Participation

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

Students who satisfy the Academy criteria for successful completion of any course of study receive a Certificate of Completion documenting the course title, date, and CEUs.

College Credit for Academy Courses

Mine safety and health inspectors can earn an **Associate of Applied Science Degree in Occupational Development: Mine Inspection** from the Mountwest Community and Technical College, Huntington, West Virginia. This program is a cooperative effort among MSHA, the National Council of Field Labor Locals, the U.S. Department of Labor's Bureau of Apprenticeship and Training, and the university. Marshall will award 43 credit hours to students who complete the equivalent of the mine inspector apprentice requirements. These credits are applied to successful completion of the classroom and on-the-job training parts of Entry Level Mine Inspector training. An additional 22 hours of general education credits are also required.

Academic Dishonesty

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

Withdrawal

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

Transcripts

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

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

Student Life

Food Service and Student Store

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

The student store, located next to the cafeteria, has a wide variety of sundries, souvenirs, and gifts.

The food service and student store accept all major credit cards.

For Your Health and Safety

Please observe all posted speed limits and all traffic and parking signs.

If you need emergency medical attention, please dial ext. 555 or "0" and request medical assistance. Academy personnel will take you to a medical facility in an Academy vehicle or arrange for an ambulance. If there is no answer, dial 9-911 (Raleigh County Emergency Operations Center) and request medical assistance.

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

You play an important part in accident prevention at the Academy. Should you see an actual or potential safety hazard, please report it to an instructor, class coordinator, or any Academy staff person. Pets of any kind are prohibited on all Academy grounds, except for certified service animals accompanying people with impairments.

Mail

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

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

Vehicles

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

Fees And Billing

All Academy fees are reviewed periodically and subject to change.

Tuition

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

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

Lodging

All persons in residence at the Academy, except MSHA personnel, other persons performing a direct service for MSHA, and persons attending a program supported through an MSHA State Grant, are charged for lodging.

The lodging fee is \$44.00 per person per day for a single room and \$57.00 per day for two persons. Lodging fees are due on arrival by credit card (VISA and MasterCard) or check/money order payable to MSHA Finance. We regret that **we cannot accept cash.** Billing is possible with a written request to the Student Services Branch.

Persons staying at the Academy may have their spouses and immediate family as guests provided all appropriate fees are paid

on arrival. Advance reservations are required. Guests under 18 years of age must be accompanied by an adult at all times.

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

Meals

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

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

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

Travel to the Academy

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

Several travel options are available:

By Air

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

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

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

By Train

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

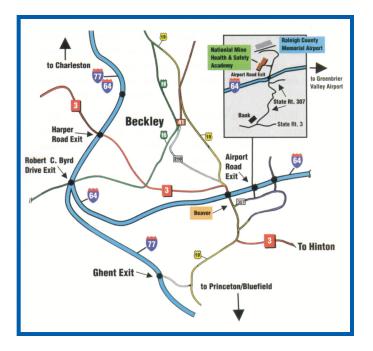
By Bus

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

By Car

See Route Map to the Academy on page 18.

Route Map to the Academy



Arriving from the NORTH

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

Arriving from the SOUTH

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

Arriving from the EAST

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

Arriving from the WEST

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

Training Courses

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

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

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

Metal/Nonmetal Inspection Courses

Journeyman Training

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

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

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

Scheduling at Worksite Available Upon Request Courses marked by this icon may be held at your worksite. If your company or organization would like any of these courses presented onsite, contact Cheryl Stevens at (304) 256-3236. The course will then be scheduled.



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



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

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.

- 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:	Douglas Lawson
Course Length:	3 days
Tuition:	\$252.00
Dates:	Offered at worksite only

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

Contents:

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

NOTE: This course is not for Electrical Specialists.

Technical Coordinators:	Roy Milam Art Wooten
Course Length:	3 days
Tuition:	\$252.00
Dates:	Scheduled upon request

FIRST RESPONDER WORKSHOP [GS645G]

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

Contents:

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

Hazards addressed:

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

Technical Coordinators:	Johnnie Tyler
	Charlotte Richardson
Course Length:	1 day
Tuition:	None
Date:	Scheduled upon request

GROUND CONTROL HAZARDS [RC301M]

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

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

Johnnie Tyler
3 days
\$252.00
Scheduled 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.

- 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

Johnnie Tyler
3 days
\$252.00
Scheduled upon request

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

[CT307M]

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.

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

Technical Coordinators:	Mac Carnes
	Kevin Malay
Course Length:	2 days
Tuition:	None
Dates:	Scheduled upon request

MARSHALL UNIVERSITY MASTERS OF SAFETY DEGREE (MINING EMPHASIS)

[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 2012 semesters. Marshall University offers courses online through WebCT Vista. This is available to any person enrolled as a Marshall University graduate student. It is extremely important that you be accepted into the program by Marshall University so that any computer issues that may arise can be resolved prior to beginning the course.

Students must be admitted into the program **prior** to course enrollment. Application for Graduate Admission forms may be obtained by calling Cheryl Stevens at (304) 256-3236 or by going online to www.marshall.edu. 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 John Rosiek by email at rosiek.john@dol.gov or at (304) 256-3211.

Technical Coordinator:	John Rosiek
Dates:	Spring 2012
	Summer 2012
	Fall 2012

MINE ACCIDENT INVESTIGATION AND REPORT WRITING [IV301G]

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.**

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

Technical Coordinator:	David Elkins
Course Length:	8 days
Tuition:	None
Dates:	November 29 - December 8, 2011
	March 13 - 22, 2012
	May 1 - 10, 2012
	July 31 - August 9, 2012

MINE ELEVATOR INSPECTION PROGRAM TRAINING – MODULE I [HS606G]

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

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

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

Technical Coordinators:	Roy Milam Art Wooten
Course Length: Tuition:	2 days \$168.00
Dates:	June 19 - 20, 2012
	August 14 - 15, 2012

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

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

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

Technical Coordinator:	Clifford F. Lindsay
Course Length:	3 days
Tuition:	\$252.00
Dates:	Scheduled upon request

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.

- 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

William D. McKinney
2 days
\$168.00
Scheduled upon request

Metal/Nonmetal Mine Safety and Health Inspectors Retraining [LP311M]

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

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

Judy Peters, Coordinator Schedule

November 29 - December 8, 2011 January 31 - February 9, 2012 May 15 - 24, 2012 August 14 - 23, 2012

Subjects

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

Metal/Nonmetal Entry Level Mine Safety and Health Inspectors Training

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

Training dates are given with each module.

Need More Info? Contact:

Cheryl Stevens Department of Instructional Services National Mine Health and Safety Academy 1301 Airport Road Beaver, West Virginia 25813-9426 TELEPHONE: (304) 256-3236 FAX: (304) 256-3247 E-MAIL: stevens.cheryl@dol.gov

Metal/Nonmetal 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.

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

& Notetaking/

Fire Protection

Simulated Inspection

Part 50/ Auditing

Drilling and Blasting

IPAL Review

Mine Act - 104(d)

Reporting Requirements -

MODULE I (4 WEEKS)

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

Safety Programs Employee Accident Reporting Drug and Substance Abuse Awareness Employee Health and Safety Training Requirements Parts 48 and 46

MODULE II (4 WEEKS)

Citations/Order Writing Notetaking Mine Act - S & S Inspector's Portable General Inspection Applications for Procedures Laptops (IPAL)

Electricity Interviewing Techniques

MODULE III (4 WEEKS)

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

Personal Protective Equipment Surface Haulage I

MODULE IV (4 WEEKS)

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

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

MODULE V (4 WEEKS)

Underground Ventilation Haulage II/Cranes Cement Plant Processes Scaffolding Safety

Industrial Ventilation Retaining Dams Pressure Vessels & Boilers

MODULE VI (3 WEEKS)

Courtroom Procedures Mine Act - 103(f), 103(k)/ General Review Jurisdictional Issues

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

Electrical Permissibility Mine Act - 107(a), 103(g) Hoisting Diesel Permissibility

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

Unique Processes Accident Investigation Slope and Shaft Sinking Inspection Electrical Review

Metal/Nonmetal Entry Level Mine Safety and Health Inspectors Training

(Dates include travel days)

GROUP M20

Module VI	September 12 – 30, 2011	(3 weeks)

GROUP M21

Module V	September 12 – 30, 2011	(3 weeks)
Module VI	November 28 – December 16, 2011	(3 weeks)

GROUP M22

Module III	September 12 – October 7, 2011	(4 weeks)
Module IV	November 28 – December 16, 2011	(3 weeks)
Module V	February 27 – March 16, 2012	(3 weeks)
Module VI	April 30 – May 18, 2012	(3 weeks)

MNM GROUP M23

Module I	October 17 – November 4, 2011	(3 weeks)
Module II	January 23 – February 17, 2012	(4 weeks)
Module III	April 9 – May 4, 2012	(4 weeks)
Module IV	July 9 – August 3, 2012	(4 weeks)
Module V	September 10 – 28, 2012	(3 weeks)
Module VI	November 26 – December 14, 2012	(3 weeks)

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 57 and 58.

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. If your company or organization would like any of these courses presented onsite, contact Cheryl Stevens at (304) 256-3236. The course can then be scheduled.



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

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.

- 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: Course Length:	Douglas Lawson 3 days
Tuition:	\$252.00
Dates:	Scheduled upon request

ELECTRICAL SAFETY FOR COAL MINERS

[EL601C]

Scheduling at Worksite Available Upon Request

This course is designed to provide practical

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

Contents:

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

NOTE: This course is not intended for Electrical Specialists.

Technical Coordinators:	Roy Milam Art Wooten
Course Length:	
Tuition:	
Dates:	Scheduled upon request

FIRST RESPONDER WORKSHOP [GS645G]

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

Contents:

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

Hazards addressed:

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

Technical Coordinators:	5
	Charlotte Richardson
Course Length:	1 day
Tuition:	None
Date:	Scheduled upon request

HAULAGE (SURFACE) (COAL) [HL301C]

Haulage accidents have been one of the highest

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

- 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

Johnnie Tyler
Roger Montali
3 days
\$252.00
Scheduled upon request

INDUSTRIAL HYGIENE [IH315C]

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

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

Technical Coordinator:	William D. McKinney
Course Length:	3 days
Tuition:	\$252.00
Dates:	Scheduled upon request

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

Scheduling at Worksite Available Upon Request

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.

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

Technical Coordinators:	Mac Carnes
	Kevin Malay
Course Length:	2 days
Tuition:	None
Dates:	Scheduled upon request

LONGWALL MINING AND INSPECTION PROCEDURES

[MS302C]

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.

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

Technical Coordinator:	Joseph Fama
Course Length:	3 days
Tuition:	\$252.00
Dates:	Scheduled upon request

MARSHALL UNIVERSITY MASTERS OF SAFETY DEGREE (MINING EMPHASIS) INEMU003]

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 2012 semesters. Marshall University offers courses online through WebCT Vista. This is available to any person enrolled as a Marshall University graduate student. It is extremely important that you be accepted into the program by Marshall University so that any computer issues that may arise can be resolved prior to beginning the course.

Students must be admitted into the program prior to course enrollment. Application for Graduate Admission forms may be obtained by calling Cheryl Stevens at (304) 256-3236 or by going online to www.marshall.edu. 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 John Rosiek by email at rosiek.john@dol.gov or at (304) 256-3211.

Technical Coordinator:	John Rosiek
Dates:	Spring 2012
	Summer 2012
	Fall 2012

MINE ACCIDENT INVESTIGATION AND REPORT WRITING

[IV301G]

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.**

- 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 Coord	inator:	David Elkins
Course Length:	8 days	Tuition: None
	Dates:	November 29 - December 8, 2011
		March 13 - 22, 2012
		May 1 - 10, 2012
		July 31 - August 9, 2012

MINE ELEVATOR INSPECTION PROGRAM TRAINING – MODULE I [HS606G]

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

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

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

Technical Coordinators:	Roy Milam
	Art Wooten
Course Length:	2 days
Tuition:	\$168.00
Dates:	June 19 - 20, 2012
	August 14 - 15, 2012

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.

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

Technical Coordinators:	William D. McKinney Robert Cline
Course Length: Tuition: Dates:	

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.

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

Technical Coordinators:	Joseph Fama
	Jon Braenovich
Course Length:	1 day
Tuition:	None
Dates:	May 30, 2012

SLOPE AND SHAFT SINKING SAFETY

[RC310G]

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

Contents:

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

Technical Coordinator: William Williams Course Length: 2 days Tuition: \$168.00 Dates: Scheduled upon request

SURFACE FACILITIES AND COAL PREPARATION [PP601C]

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

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

Technical Coordinators:	Clifford F. Lindsay Johnnie Tyler
Course Length:	3 days
Tuition:	\$252.00
Dates:	Scheduled upon request

UNDERGROUND DIESEL EQUIPMENT/VENTILATION [VN321G]

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.

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

Technical Coordinator:	William D. McKinney
Course Length:	
Tuition:	\$252.00
Dates:	Scheduled upon request

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.

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

Technical Coordinators:	Roy Milam Art Wooten
Course Length:	2 days
Tuition:	\$168.00
Dates:	Scheduled upon request

Coal Mine Safety and Health Inspectors Retraining [LP311C]

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

Underground Coal Mine Safety and Health Inspectors (LP311C)

Richard McDorman, Coordinator

Schedule

October 25 - November 3, 2011 January 24 - February 2, 2012 April 17 - 26, 2012 July 10 - 19, 2012 September 11 - 20, 2012

Subjects

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

Surface Coal Mine Safety and Health Inspectors (LP312C)

Johnnie Tyler, Coordinator

Schedule

August 14 - 23, 2012

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.

Orientation Introduction to MSHA and Mission Diversity

MODULE I (4 weeks)

Law, Regulation, & Policy Introduction to Laptops Effective Writing Inspection Procedures

Citations/ Orders Writing and Notetaking/ Inspector's Portable Applications for Laptops (IPAL)

MODULE II (4 weeks)

Mine Act - S&S & 104(d)/ Part 45 Contractors Safety Talks I Part 50 Reporting Requirements & Auditing Introduction to Special Investigations/Mine Act - Root Cause Analysis 105(c), 110(c)

Interviewing Techniques Fire Detection and Monitoring Electrical Permissibility Shaft and Slope Sinking Inspection

Workplace Examination Combustible Materials and Rockdusting Conference Presentation Preparation (PP) Noise/Respirable Dust

Professionalism Part 48 Training Requirements Conference Presentation Communication IPAL Review A

MODULE III (4 weeks)

Mine Act - 107(a)/103(g)Simulated Inspection Courtroom Procedures Ground Control

Fire Protection Diesel Permissibility Mine Electricity/ High Voltage Longwall/ High Voltage Miner

MODULE IV (3 weeks)

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

MODULE V (3 weeks)

Hoisting Structural Safety Surface Haulage Ventilation II

Drilling and Blasting

MODULE VI (3 weeks)

Underground Haulage Mine Rescue/Part 49 Accident Investigation

Impoundments Electrical Review IPAL Review B

Mine Act - (103(f), 103(k) General Review Overall Review/Graduation The following courses must be completed, in the field, prior to Module I:

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

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

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

This course will be completed after Module II:

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

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

- Courtroom Procedures
- Interviewing Techniques
- Tree Cutting
- Diesel Permissibility

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

Structural Safety

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

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

Coal Entry Level Mine Safety and Health Inspectors Training

(Dates include travel days)

GROUP 81

Module VI	September 12 – 30, 2011	(3 weeks)

GROUP 82

Module V	September 12 – 30, 2011	(3 weeks)
Module VI	January 23 – February 10, 2012	(3 weeks)

GROUP 83

Module III	September 12 – October 7, 2011	(3 weeks)
Module IV	November 28 – December 16, 2011	(3 weeks)
Module V	February 27 – March 16, 2012	(3 weeks)
Module VI	May 7 – 25, 2012	(3 weeks)

GROUP 84

Module III	September 12 – October 7, 2011	(4 weeks)
Module IV	January 23 – February 10, 2012	(3 weeks)
Module V	April 9 – 27, 2012	(3 weeks)
Module VI	June 4 – 22, 2012	(3 weeks)

COAL GROUP 85

Module I	September 12 – October 7, 2011	(4 weeks)
Module II	January 23 – February 17, 2012	(4 weeks)
Module III	April 16 – May 11, 2012	(4 weeks)
Module IV	July 8 – 27, 2012	(4 weeks)
Module V	September 10 – 28, 2012	(3 weeks)
Module VI	November 26 – December 14, 2012	(3 weeks)

COAL GROUP 86

Module I	November 28 – December 16, 2011	(3 weeks)
Module II	January 23 – February 17, 2012	(4 weeks)
Module III	April 16 – May 11, 2012	(4 weeks)
Module IV	July 8 – August 3, 2012	(4 weeks)
Module V	September 17 – October 5, 2012	(3 weeks)
Module VI	November 26 – December 14, 2012	(3 weeks)

Computer Training Schedule

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

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

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

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.

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

Technical Coordinator:	Mac Carnes
Course Length:	2 days
Tuition:	\$252.00
Dates:	March 20 - 21, 2012

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.

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

Technical Coordinator:	Mac Carnes
Course Length:	3 days
Tuition:	\$252.00
Dates:	May 8 - 10, 2012

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.

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

Technical Coordinator:	Mac Carnes
Course Length:	3 days
Tuition:	\$252.00
Dates:	June 12 - 14, 2012

MICROSOFT[®] WORD 2010 [CT706G]

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.

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

Technical Coordinator:	Mac Carnes
Course Length:	3 days
Tuition:	\$252.00
Dates:	August 7 - 9, 2012
	•

Certification and Qualification Courses

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

Scheduling at Worksite Available Upon Request Courses marked by this icon may be held at your worksite. If your company or organization would like any of these courses presented onsite, contact Cheryl Stevens at (304) 256-3236. The course can then be scheduled.



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.



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

ANNUAL RETRAINING FOR IMPOUNDMENT QUALIFICATION

[IM602C]

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

Please Note:

MSHA Qualification and Certification no longer accepts Social Security Numbers on the application form that you must fill out in order to receive your qualification for impoundment inspection card after successful completion of the course. You will need an MSHA Individual Identification Number, available by applying online at: http://www.msha. gov/forms/elawsforms/5000-46.htm

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

Technical Coordinator:	Clifford F. Lindsay
Course Length:	4 hours
Tuition:	\$48.00
Dates:	November 17, 2011
	January 12, 2012
	April 12, 2012
	August 23, 2012

QUALIFICATION FOR IMPOUNDMENT INSPECTION

[IM601C]

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

Please Note:

MSHA Qualification and Certification no longer accepts Social Security Numbers on the application form that you must fill out in order to receive your qualification for impoundment inspection card after successful completion of the course. You will need an MSHA Individual Identification Number, available by applying online at: http://www.msha.gov/forms/ elawsforms/5000-46.htm

Contents:

Introductory training on:

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

Technical Coordinator:	Clifford F. Lindsay
Course Length:	8 hours
Tuition:	\$84.00
Dates:	November 15, 2011
	January 10, 2012
	April 10, 2012
	August 21, 2012

RESPIRABLE COAL MINE DUST SAMPLER CALIBRATION/MAINTENANCE CERTIFICATION [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 Coordinators:	William D. McKinney Robert Cline
Course Length:	
Tuition: Dates:	•
	August 1, 2012

RESPIRABLE COAL MINE DUST SAMPLING CERTIFICATION

[IH601C]

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

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

Contents:

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

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

Hands-on Instructions for Sampling Unit:

- Assembly
- Inspection
- Use

Technical Coordinators: William D. McKinney Robert Cline Course Length: 8 hours

Durse Length: 8 hours Tuition: \$84.00 Dates: May 8, 2012 July 31, 2012

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. If your company or organization would like any of these courses presented onsite, contact Cheryl Stevens at (304) 256-3236. The course can then be scheduled.



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.



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ACCIDENT PREVENTION TECHNIQUES

[SF601G]

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

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

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

- Accident/Incident Analysis
- Analyzing Performance Problems
- Safety Communications/Promotion
- Developing Effective Safety Talks
- Managing Stress
- Job Safety Analysis
- Job Observation
- Accident Investigation
- Mine Safety Program Rating Procedures

Technical Coordinator:	Glen Poe
Course Length:	3 days
Tuition:	\$252.00
Dates:	Scheduled upon request

DESIGNING FOR INTRINSIC SAFTEY [EL600C7]

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

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

Technical Coordinator:	Cheryl Stevens
Course Length:	1 day
Tuition:	\$84.00
Dates:	January 19, 2012
	May 10, 2012

ELECTRICAL SAFETY FOR COAL MINERS

[EL601C]

Scheduling at Worksite Available Upon Request

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

Contents:

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

NOTE: This course is not intended for Electrical Specialists.

Technical Coordinators:	Roy Milam Art Wooten
Course Length:	3 days
Tuition:	\$252.00
Dates:	Scheduled upon request

ELECTRICAL SAFETY FOR METAL/ NONMETAL MINERS

Scheduling at Worksite Available Upon Request

[EL601M]

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

Contents:

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

NOTE: This course is not intended for Electrical Specialists.

Technical Coordinators:	Roy Milam Art Wooten
Course Length:	2 days
Tuition:	\$168.00
Dates:	Scheduled upon request

HAZARD COMMUNICATION (HAZCOM) [IH616G]

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

- 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

William D. McKinney Johnnie Tyler
1 day
\$84.00
Scheduled upon request

HOISTS AND ELEVATORS [HS603C]

This course provides instruction to the student in the basic parts of mine personnel hoists and elevators. It includes discussion of drums, sheaves, and cages, but mainly concentrates on wire ropes and terminations. The class will also cover some of the requirements in the American Society of Mechanical Engineers (ASME) A17.1 and A17.2 which apply to elevators. The student will learn basic wire rope and termination technology and how to use this knowledge to enforce removal criteria according to the Code of Federal Regulations (30 CFR 75.1400 or 56.19000). The student will also learn how to conduct an adequate inspection for personnel hoists and elevators. There are exercises on hazard recognition. This course is for MSHA coal and metal/ nonmetal mine safety and health inspectors and industry personnel.

- Wire Rope Technology
- Terminations and Attachments
- Removal Criteria According to 30 CFR
- How to Apply ASME A17.1 & A17.2
- Hazard Recognition
- Inspection Procedure
- Citation and Order Writing

Technical Coordinator:	Joseph Fama
Course Length:	3 days
Tuition:	\$252.00
Dates:	April 24 - 26, 2012

INDUSTRIAL HYGIENE: SAMPLING FOR RESPIRABLE SILICA DUST AND NOISE [IH621M]

(Offered on site)

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.

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

Technical Coordinators:	William D. McKinney Robert Cline
	3 days \$252.00
Dales.	Limited availability; to be arranged with individual operators

INSTRUCTOR TRAINING WORKSHOP (PART 48) [GS643G]

This course is intended to improve the instructional skills, abilities, and knowledge of mine trainers. Participants will be required to select, develop, and present a 15-minute training segment on a health or safety topic in 30 CFR Part 48. 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 a resumé to the local MSHA District showing your mining experience and education. (2) You must demonstrate that you have the ability to teach. Successful completion of this course will enable you to meet this requirement.

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

Technical Coordinator:	Belinda Browning
Course Length:	3 days
Tuition:	\$252.00
Dates:	October 25 - 27, 2011
	January 10 - 12, 2012
	April 10 - 12, 2012
	June 19 - 21, 2012

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

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

Instructor:	Michelle Schaper
Technical Coordinator:	William D. McKinney
Course Length:	3 days
Tuition:	\$252.00
Dates:	Scheduled upon request

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 Coordinator:	Randy L. Skaggs
Course Length:	3 days
Tuition:	\$252.00
Dates:	July 31 - August 2, 2012

MARSHALL UNIVERSITY MASTERS OF SAFETY DEGREE (MINING EMPHASIS)

[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 2012 semesters. Marshall University offers courses online through WebCT Vista. This is available to any person enrolled as a Marshall University graduate student. It is extremely important that you be accepted into the program by Marshall University so that any computer issues that may arise can be resolved prior to beginning the course.

Students must be admitted into the program **prior** to course enrollment. Application for Graduate Admission forms may be obtained by calling Cheryl Stevens at (304) 256-3236 or by going online to www.marshall.edu. 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 John Rosiek by email at rosiek.john@dol.gov or at (304) 256-3211.

Technical Coordinator:	John Rosiek
Dates:	Spring 2012
	Summer 2012
	Fall 2012

MINE ACCIDENT INVESTIGATION TECHNIQUES

[IV601G]

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

Classroom activities and discussions cover reasons for accident investigations, the investigative process, data collection, accident reconstruction, and proper analysis for corrective actions. Handson exercises are stressed along with class participation.

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

Technical Coordinator:	David Elkins
Course Length:	3 days
Tuition:	\$252.00
Dates:	February 28 - March 1, 2012

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.

- 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

MINE ELEVATOR INSPECTION PROGRAM TRAINING – MODULE I [HS606G]

Scheduling at Worksite Available Upon Request

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

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

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

Technical Coordinators:	Roy Milam
	Art Wooten
Course Length:	2 days
Tuition:	\$168.00
Dates:	June 19 - 20, 2012
	August 14 - 15, 2012

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

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

NOISE HAZARDS, REGULATION, AND CONTROL [IH321G]

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

Contents:

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

Technical Coordinators:	William D. McKinney Robert Cline
Course Length:	•
Tuition:	\$252.00

Dates: Scheduled upon request

ROOT CAUSE ANALYSIS WORKSHOP

[SF602G]

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

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

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

Technical Coordinator:	Glen Poe
Course Length:	1 day
Tuition:	\$84.00
Dates:	Scheduled upon request

SURFACE FACILITIES AND COAL PREPARATION [PP601C]

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

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

Technical Coordinators:	Clifford F. Lindsay Johnnie Tyler
Course Length:	3 days
Tuition:	\$252.00
Dates:	Scheduled upon request

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.

National Mine Health and Safety Academy

To Enroll Contact;

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.

- 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:	Douglas Lawson
Course Length:	2 days
Tuition:	None
Dates:	January 18 - 19, 2012

FIRST RESPONDER WORKSHOP [GS645G]

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

Contents:

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

Hazards addressed:

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

Technical Coordinators:	
	Charlotte Richardson
Course Length:	1 day
Tuition:	None
Date:	Scheduled upon request

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

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.

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

Technical Coordinators:	Joseph Fama
	Jon Braenovich
Course Length:	1 day
Tuition:	None
Dates:	May 30, 2012

SURFACE HAULAGE WORKSHOP

[HL502G1]

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

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

Technical Coordinator:	Roger Montali
Course Length:	2 days
Tuition:	None
Dates:	August 21 - 22, 2012

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:	Robert Glatter
Course Length:	2 ¹ ⁄ ₂ days
Tuition:	None
Dates:	October 11 - 13, 2011
	October 9 - 11, 2012

Technical Specialists Training

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

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

Coal Electrical Training [EL401C - 56 hours] Coordinators: Roy Milam/Art Wooten March 6-15, 2012

Health Specialists [IH401G] Coordinator: William D. McKinney (Dates not available at time of publication)

Impoundment Specialists [IM401C - 21 hours]

Coordinator: Clifford F. Lindsay May 1-3, 2012

MNM Journeyman Mine Safety and Health Inspectors

[LP311M - 56 hours] Coordinator: Judy Peters November 29 - December 8, 2011 January 31 - February 9, 2012 May 15 - 24, 2012 August 14 - 23, 2012

Roof Control Specialists [RC401C - 21 hours] Coordinator: Jon Braenovich May 15 - 17, 2012 **Special Investigators** [IV402G]

Coordinator: Judy Peters February 28 - March 16, 2012 (Module I) March 27 - April 5, 2012 (Special Investigation Recertification) June 19 - 21, 2012 (Complaint Processor Recertification) July 24 - August 2, 2012 (Module II)

Surface Coal Mine Safety and Health Inspectors

[LP312C - 56 hours] Coordinator: Johnnie Tyler August 14 - 23, 2012

Underground Coal Mine Safety and Health Inspectors

[LP311C - 56 hours] Coordinator: Richard McDorman October 25 - November 3, 2011 January 24 - February 2, 2012 April 17 - 26, 2012 July 10 - 19, 2012 September 11 - 20, 2012

Ventilation Specialists [VN401C - 21 hours] Coordinator: William R. Williams March 20 - 22, 2012

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Schedule of Academy Events By Date

October 2011

October 10 - 14, 2011

 TRAM/National Mine Instructors Seminar 10/11-13, 2011

October 24 - 28, 2011

- Underground Coal Journeyman Retraining 10/25-11/3/2011
- Instructor Training Workshop, Part 48 10/25-27/2011

November 2011

November 14 - 18, 2011

- Annual Retraining for Impoundment Qualification 11/17/2011
- Qualification for Impoundment Inspection 11/15/2011

November 28 – December 2, 2011

- Metal/Nonmetal Journeyman Retraining 11/29-12/8/2011
- Mine Accident Investigation and Report Writing 11/29-12/8/2011

January 2012

January 9 - 13, 2012

- Instructor Training Workshop, Part 48 1/10-12/2012
- Qualification for Impoundment Inspection 1/10/2012
- Annual Retraining for Impoundment Qualification 1/12/2012

January 16 – 20, 2012

- Blasting Seminar 1/18-19/2012
- Designing for Intrinsic Safety 1/19/2012

January 23 – 27, 2012

 Underground Coal Journeyman Retraining 1/24-2/2/2012

January 30 – February 3, 2012

 Metal/Nonmetal Journeyman Retraining 1/31-2/9/2012

February 2012

February 28 - March 1, 2012

 Mine Accident Investigation Techniques 2/28-03/01/2012

March 2012

March 5 - 9, 2012

 Coal Electrical Retraining 3/6-15/2012

March 12 - 16, 2012

 Mine Accident Investigation and Report Writing 3/13-22/2012

March 19 – 23, 2012

- Ventilation Specialists Retraining 3/20-22/2012
- Microsoft[®] Basic Excel 2010 3/20-21/2012

April 2012

April 9 – 13, 2012

- Qualification for Impoundment Inspection 4/10/2012
- Instructor Training Workshop, Part 48 4/10-12/2012
- Annual Retraining for Impoundment Qualification 4/12/2012

April 16 – 20, 2012

 Underground Coal Journeyman Retraining 4/17-26/2012

April 23 – 27, 2012

 Hoists and Evevators 4/24-26/2012

May 2012

April 30 - May 4, 2012

- Mine Accident Investigation and Report Writing 5/1-10/2012
- Impoundment Specialists Retraining (Dam Safety Seminar) 5/1-3/2012

May 7 – 11, 2012

- Respirable Coal Mine Dust Sampling Certification 5/8/2012
- Respirable Coal Mine Dust Sampler Calibration/ Maintenance Certification

5/9/2012

- Microsoft[®] Intermediate Excel 2010 5/8-10/2012
- Designing for Intrinsic Safety 5/10/2012

May 14 – 18, 2012

- Roof Control Specialists Retraining 5/15-17/2012
- Metal/Nonmetal Journeyman Retraining 5/15-24/2012

May 28 – June 1, 2012

 Roof Control Seminar 5/30/2012

June 2012

June 11 – 15, 2012

 Microsoft[®] PowerPoint 2010 6/12-14/2012

June 18 – 22, 2012

- Mine Elevator Inspection 6/19-20/2012
- Instructor Training Workshop, Part 48 6/19-21/2012

July 2012

July 9 – 13, 2012

 Underground Coal Journeyman Retraining 7/10-19/2012

July 30 – August 3, 2012

- Mine Accident Investigation and Report Writing 7/31-8/9/2012
- Introduction to Mining 7/31-8/2/2012
- Respirable Coal Mine Dust Sampling Certification 7/31/2012
- Respirable Coal Mine Dust Sampler Calibration/ Maintenance Certification 8/1/2012

August 2012

August 6 – 10, 2012

 Microsoft[®] Word 2010 8/7-9/2012

August 13 – 17, 2012

- Mine Elevator Inspection 8/14-15/2012
- Metal/Nonmetal Journeyman Retraining 8/14-23/2012
- Surface Coal Mine Inspector Retraining in conjunction with Surface Haulage Workshop 8/21-22/2012
- Surface Haulage Workshop 8/21-22/2012

August 20 – 24, 2012

- Qualification for Impoundment Inspection 8/21/2012
- Annual Retraining for Impoundment Qualification 8/23/2012

September 2012

September 10 - 14, 2012

- Underground Coal Journeyman Retraining 9/11-20/2012
- Ventilation Specialist Retraining 9/11-20/2012

October 2012

October 8 - 12, 2012

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

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