

Courses for MSHA and the Mining Industry



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

FY 2005



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

Visit our website at <http://www.msha.gov>



Courses for MSHA and the Mining Industry



U.S. Department of Labor
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Secretary

Mine Safety and Health Administration
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FY 2005

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WELCOME

Welcome to the 2005 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. 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 135 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 exists to meet the requirements of the 1977 Act.

THE ACADEMY'S PURPOSE AND GOAL



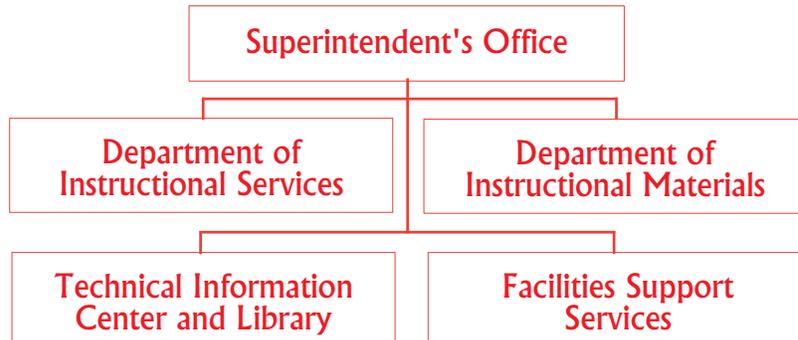
The purpose of the Academy is to design, develop, and conduct instructional programs that will assist in government, industry, and labor efforts to reduce injuries, illnesses, and fatalities in the mineral industries.

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's Office with the help of four major units:

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



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** conducts training classes for coal and metal/nonmetal mine safety and health inspectors and other mine health and safety professionals. The department also develops, revises, and evaluates course materials and other programs used to train persons from MSHA and all segments of the mining community. In addition, the department administers individualized study materials for nonresident students.

The **Department of Instructional Materials** researches and develops audiovisual and graphic items to provide support to the mining industry. The department also oversees printing, storage, and distribution of Academy-produced training materials.

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 Residence Hall space for 174 people.

The **Classroom Building** includes 14 classrooms and 10 laboratories.

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.

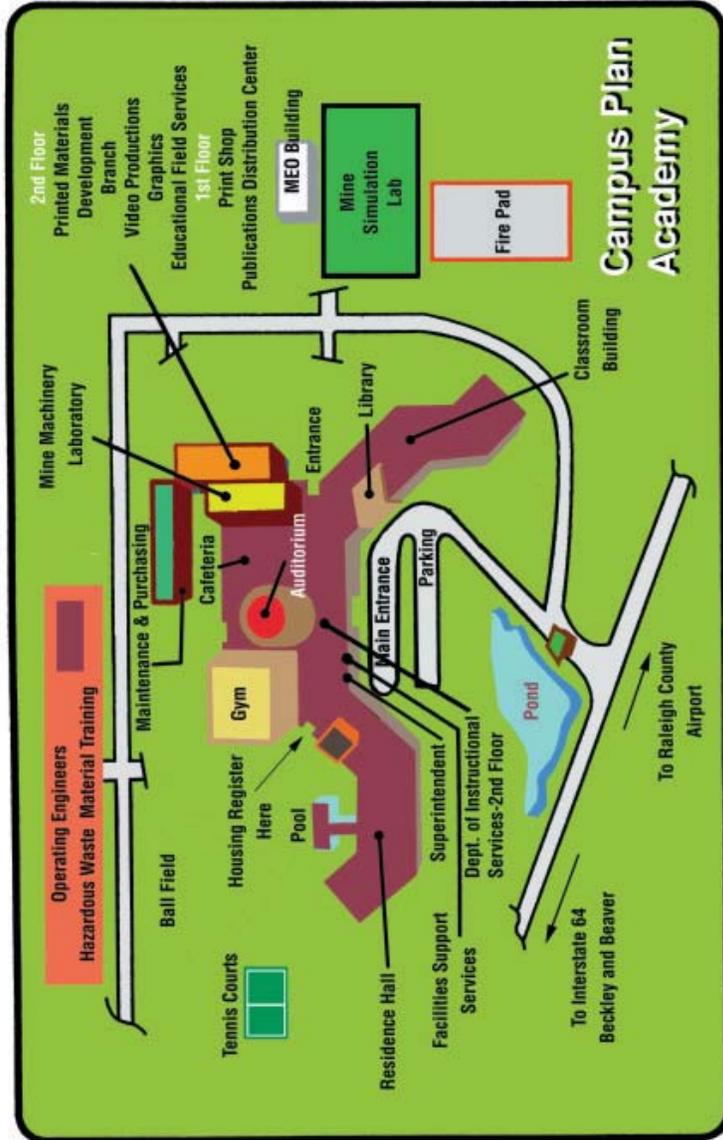
The **Maintenance and Equipment Building** is used to maintain Academy equipment.

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 or two twin beds, a private bath, 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. This institution is federally designated as a Level II site which requires certain safety and security measures to be followed. 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 eight modules of instruction (25 weeks total) at the Academy with on-the-job training (OJT) sessions in the field between modules.

Entry-level metal/nonmetal mine safety and health inspectors' training includes six modules of instruction (four basic modules, one intermediate module and one advanced module) (23 weeks total) at the Academy with OJT sessions in the field between modules.

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.

MSHA has developed a new Management Education Policy and will be implementing a Leadership Intensive Course for GS-13, 14, and 15 supervisors/managers, as well as other supervisory training, this fiscal year. Schedules, dates, and supervisors eligible to receive the training have yet to be determined.

Administrative and clerical 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.

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 dress is casual. 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 Community and Technical College of Marshall University, Huntington, West Virginia. This pro-

gram 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 Social Security number. 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 after you go through the 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.

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.

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

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. 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 \$41.00 per person per day for a single room and \$54.00 per day for a double room. Note that these fees are reviewed at the end of each fiscal year (September 30) and may be changed at that time. 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.

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 dorm are normally required to purchase a meal ticket for breakfast and lunch at the Academy. Dinner is optional. Prices are:

Breakfast	\$7.42
Lunch	\$9.54
Dinner	\$10.60

Note that these fees are reviewed at the end of each fiscal year (September 30) and may be changed at that time.

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



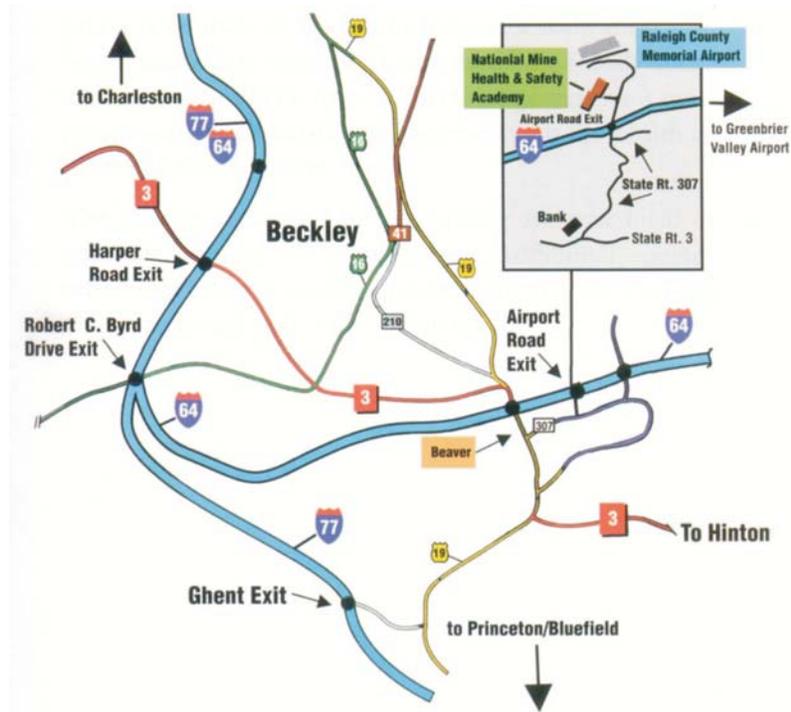
Daily Greyhound service is available to and from Beckley – located 8 miles from the Academy in downtown Beckley. Taxi service is available.

By Car



See Route Map to the Academy on page 16.

Route Map to the Academy



Arriving from the NORTH

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

Arriving from the EAST

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

Arriving from the SOUTH

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

Arriving from the WEST

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

TRAINING COURSES

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

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

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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 are on page 33.

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.



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 Doris Fuller at (304) 256-3234. 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 Doris Fuller at (304) 256-3234.

To Enroll Contact:

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

TELEPHONE: (304) 256-3252

FAX: (304) 256-3251

BLASTING (SURFACE) (MNM)
[EX316M]



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

Contents:

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

Technical Coordinator: Wayne L. Lively

Course Length: 3 days

Tuition: \$231.00

Dates: March 8-10, 2005

ELECTRICAL HAZARDS

[EL301M]



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

Contents:

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

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

Technical Coordinator: Roy Milam

Course Length: 3 days

Tuition: \$231.00

Dates: January 11-13, 2005

*Additional courses can be
scheduled upon request*

GROUND CONTROL HAZARDS

[RC301M]

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

Contents:

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

Technical Coordinator: Tom Bonifacio
Course Length: 3 days
Tuition: \$231.00
Dates: *Scheduled upon request*

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



Haulage accidents have been the leading cause 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. It is taught by former MSHA mine safety and health inspectors.

Contents:

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

Technical Coordinator: Tom Bonifacio
Course Length: 3 days
Tuition: \$231.00
Dates: November 16-18, 2004
*Additional courses can be
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.

Contents:

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

Technical Coordinator: Betty Hogan
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 at the Academy through Marshall University.

Students must be admitted into the program **prior** to taking the courses. Application for Graduate Admission forms may be obtained by calling John Forte at (304) 256-3321.

College Chemistry 201, Math 130, and Physics 101 are prerequisites for admission to this program, as is a minimum undergraduate GPA of 2.5.

For information on spring, summer, and fall classes, contact John Rosiek at (304) 256-3211.

Technical Coordinators: John Rosiek
John Forte

Tuition: \$270 for each class for MSHA
employees
\$540 for non-MSHA employees

Dates: Spring 2005
Summer 2005
Fall 2005

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. **Other interested individuals should contact the Technical Coordinator.** 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 conduct a simulated accident investigation and prepare a report. **Students should bring their laptop computers.**

Contents:

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

Technical Coordinators: Scott Mandeville
Roy Milam

Course Length: 8 days

Tuition: None

Dates: November 30-December 9, 2004
February 1-10, 2005
April 5-14, 2005
July 26-August 4, 2005

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: Ed Newcomb
Course Length: 2 days
Tuition: \$154.00
Dates: November 2-3, 2004

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



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

Contents:

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

Technical Coordinator: Clifford F. Lindsay

Course Length: 3 days

Tuition: \$231.00

Dates: *Scheduled upon request*

TapRoot[®] SYSTEM ACCIDENT/INCIDENT INVESTIGATION TRAINING

[IV341G]

This course is for MSHA coal, metal/nonmetal, technical support, or other MSHA employees who are involved in mine accident/incident investigations. The TapRoot[®] System provides a methodology to lead an investigator through the techniques and steps used to perform an in-depth investigation of an incident's root causes. Training focuses on developing a flow diagram of the events and conditions leading up to the undesired incident, evaluating each condition, identifying causal factors, and evaluating each factor as to root cause. The course will include training on Systems Improvement's SnapCharT[®] and Root Cause Tree[®] software.

The SnapCharT[®] software is a graphic presentation of the sequence of events identified and discovered during the physical onsite investigation. A SnapCharT[®] helps the investigator organize the information gathered, identify the contributing factors that lead to the incident, and identify causal factors. In addition, it helps the investigator identify holes and inconsistencies in the information gathered during the investigation.

The Root Cause Tree[®] software takes over where a SnapCharT[®] stops. While the SnapCharT[®] looks at what happened and the contributing factors involved, the Root Cause Tree[®] looks at why it happened. The Root Cause Tree[®] provides the investigator with a comprehensive list of the root causes that should be considered for every incident.

Students should bring their laptop computers.

Contents:

- ◆ Equipment Failure Analysis including:
 - Design Failures
 - Defective Parts
 - Preventive/Predictive Maintenance

**TapRoot® SYSTEM ACCIDENT/INCIDENT
INVESTIGATION TRAINING** *(continued)*

- ◆ Human Performance Difficulty Analysis including:
 - Procedures
 - Training
 - Quality Control
 - Communications
 - Management Systems
 - Human Engineering
 - Work Direction

Technical Coordinators: Scott Mandeville
Roy Milam

Course Length: 3 days

Tuition: None

Dates: *Scheduled upon request*

**UNDERGROUND VENTILATION
FOR METAL AND NONMETAL
MINES**
[VN303N]



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

Contents:

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

Technical Coordinators: William D. McKinney
Scott Mandeville

Course Length: 2 days

Tuition: \$154.00

Dates: *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.

Tom Bonifacio, Coordinator

SCHEDULE

December 7-16, 2004

February 8-17, 2005

March 22-31, 2005

SUBJECTS

- ◆ Professionalism
- ◆ Electrical Hazards
- ◆ Root Cause Analysis
- ◆ Blasting Technology
- ◆ Shaft and Slope Sinking
- ◆ Citations and Order Writing
- ◆ Powered Haulage
- ◆ Accident Reduction Program
- ◆ Law, Regulation and Policy
- ◆ Health Procedures
- ◆ PowerPoint Presentations
- ◆ Laptop Troubleshooting
- ◆ Basic Rigging

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:

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

TELEPHONE: (304) 256-3234
FAX: (304) 256-3247
E-MAIL: fuller.doris@dol.gov

METAL/NONMETAL CURRICULUM (BASIC MODULES I-IV INTERMEDIATE AND ADVANCED)

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.**

BASIC MODULE I (4 WEEKS)

Orientation	Law, Regulation and	Effective Writing
Introduction to MSHA	Policy	Basic Laptops
and Mission	Standards of Conduct	Safety Talks I and II
Diversity	Professionalism	General Inspection
Math Assessment	Communications	Procedures
Root Causes	Interviewing Techniques	

BASIC MODULE II (4 WEEKS)

Inspector's Portable	Notetaking	Citations and Orders
Applications for	Material Storage and	Ground Control I
Laptops (IPAL)	Handling	Tech Support Briefing
Surface Haulage and	DOL Accident Reporting	Employee Health & Safety
Equipment	Mine Act - S&S	Pressure Vessels & Boilers

BASIC MODULE III (4 WEEKS)

Fire Protection	Health I	Personal Protective
Simulated Inspection	Structural Safety	Equipment
Electricity	Accident Investigation	Mine Act - 104(d), 107(a)
Part 50		

BASIC MODULE IV (3 WEEKS)

Drilling and Blasting	Safety Programs	Gas Detecting Devices
IPAL Review	Parts 48 and 46	Introduction to Special
Mine Act - 103(f), 103(g)	Conference Presentations	Investigations

INTERMEDIATE MODULE (4 WEEKS)

Cement Plant Processes	Health II	Mine Act - 103(k), 104(g)(1)
Part 50 Audits	Haulage II	Retaining Dams
Mine Act - Purpose of	Excavation/Trenching	Construction Safety
Agency	Safety/Scaffold Safety	(multiple topics)
Maintenance and Repair	Part 45 - Contractors	Jurisdictional Issues
Safety		

ADVANCED MODULE (4 WEEKS)

**TapRoot	Courtroom Procedures	Ground Control II
**Unique Processes	Permissibility	Cranes
Hoists	Shafts and Slopes Inspection	Mine Act/C&O Review
Conference Presentations	Underground Ventilation	Overall Review/Graduation

**** These courses are optional.**

METAL/NONMETAL ENTRY LEVEL MINE SAFETY AND HEALTH INSPECTORS TRAINING

(Dates include travel days)

GROUP M01

Intermediate Module	January 24 – February 18, 2005	(4 weeks)
Advanced Module	June 6 – July 1, 2005	(4 weeks)

GROUP M02

Intermediate Module	February 28 – March 25, 2005	(4 weeks)
Advanced Module	June 6 – July 1, 2005	(4 weeks)

GROUP M03

Basic Module IV	October 18 – November 5, 2004	(3 weeks)
Intermediate Module	April 4 – April 29, 2005	(4 weeks)
Advanced Module	July 11 – August 5, 2005	(4 weeks)

GROUP M04

(To be determined)

GROUP M05

(To be determined)

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 page 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.



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 Doris Fuller at (304) 256-3234. 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 Doris Fuller at (304) 256-3234.

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

**ADVANCED VENTILATION/
BLEEDER AND GOB
VENTILATION SYSTEMS**



[VN302C]

This advanced ventilation course is specifically designed for ventilation specialists, mine safety and health inspectors, supervisors, and mine managers. It will improve their understanding and working knowledge in ventilation systems for underground mining.

Contents:

- ◆ Ventilation Design
- ◆ Plan Approval
- ◆ Regulatory Compliance
- ◆ Maintenance
- ◆ Inspection/Examination
- ◆ Evaluation of Ventilation Systems
- ◆ De-gasification

Technical Coordinator: Scott Mandeville
Course Length: 2 days
Tuition: \$154.00
Dates: *Scheduled upon request*

BLASTING (SURFACE) (COAL)
[EX316C]



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

Contents:

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

Technical Coordinator: Wayne L. Lively
Course Length: 3 days
Tuition: \$231.00
Dates: January 11-13, 2005

COAL IMPOUNDMENT AND REFUSE PILE INSPECTION

[IM301C]

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

Contents:

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

Technical Coordinator: Clifford F. Lindsay

Course Length: 2 days

Tuition: \$154.00

Dates: May 10-11, 2005

August 23-24, 2005

*Additional courses can be
scheduled upon request*

ELECTRICAL SAFETY FOR COAL MINERS

[EL601C]

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 Coordinator: Roy Milam
Course Length: 3 days
Tuition: \$231.00
Dates: March 29-31, 2005

EXPLOSION PREVENTION
[EX320C]



This course is designed to provide methods and techniques for identification of explosion hazards, prevention of such hazards, and appropriate actions to be taken when a hazard is detected. The course is structured for MSHA coal mine safety and health inspectors and industry personnel.

Contents:

- ◆ Permissibility
- ◆ Recognizing Potential Hazards
- ◆ Proper Rock Dusting Techniques and Sampling Procedures
- ◆ Recent Events
- ◆ Effective Workplace Examinations

Technical Coordinator: Scott Mandeville
Course Length: 2 days
Tuition: \$154.00
Dates: March 29-30, 2005

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, and is taught by former MSHA mine safety and health inspectors.

Contents:

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

Technical Coordinator: Johnnie Tyler
Course Length: 3 days
Tuition: \$231.00
Dates: February 1-3, 2005

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 also be discussed.

Contents:

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

Technical Coordinator: William D. McKinney
Course Length: 3 days
Tuition: \$231.00
Dates: August 23-25, 2005

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

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

Contents:

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

Technical Coordinator: Betty Hogan

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.

Contents:

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

Technical Coordinator: Joseph Fama
Course Length: 3 days
Tuition: \$231.00
Dates: May 10-12, 2005

**MARSHALL UNIVERSITY MASTERS OF SAFETY
DEGREE (MINING EMPHASIS)
[NEMU003]**

Courses will be offered pursuant to the Masters of Safety Degree (Mining Emphasis) program offered at the Academy through Marshall University.

Students must be admitted into the program **prior** to taking the courses. Application for Graduate Admission forms may be obtained by calling John Forte at (304) 256-3321.

College Chemistry 201, Math 130, and Physics 101 are prerequisites for admission to this program, as is a minimum undergraduate GPA of 2.5.

For information on spring, summer, and fall classes, contact John Rosiek at (304) 256-3211.

Technical Coordinators: John Rosiek
John Forte

Tuition: \$270 for each class for MSHA
employees
\$540 for non-MSHA employees

Dates: Spring 2005
Summer 2005
Fall 2005

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. **Other interested individuals should contact the Technical Coordinator.** The course reviews basic guidelines, procedures, and techniques used to investigate and report on accidents and other incidents involving health and safety in the mining industry.

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

Contents:

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

Technical Coordinators: Scott Mandeville
Roy Milam

Course Length: 8 days

Tuition: None

Dates: November 30-December 9, 2004
February 1-10, 2005
April 5-14, 2005
July 26-August 4, 2005

NOISE HAZARDS, REGULATION, AND CONTROL

[IH321G]



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

Contents:

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

Technical Coordinator: William D. McKinney
Course Length: 3 days
Tuition: \$231.00
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 with coal mine roof safety. Federal and state enforcement personnel wishing to increase their knowledge in the latest developments in roof and rib control will also find this seminar very beneficial.

This seminar will update personnel on new products and methods related to roof stability. It will also include presentations by personnel from the Academy, Technical Support, MSHA headquarters, other government agencies, and industry. All subjects will incorporate safe mining practices which will help reduce roof fall injuries and fatalities. The seminar will discuss new roof control techniques, trends, and developments.

Contents:

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

Technical Coordinators: Joseph Fama
John Rosiek

Course Length: 2 days

Tuition: None

Dates: June 1-2, 2005

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: Ed Newcomb
Course Length: 2 days
Tuition: \$154.00
Dates: November 2-3, 2004

SURFACE FACILITIES AND COAL PREPARATION [PP601C]

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

Contents:

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

Technical Coordinators: Clifford F. Lindsay
John Tyler

Course Length: 3 days

Tuition: \$231.00

Dates: *Scheduled upon request*

**TapRoot[®] SYSTEM ACCIDENT/INCIDENT
INVESTIGATION TRAINING**
[IV341G]

This course is for coal, metal/nonmetal, technical support, and other MSHA employees who are involved in mine accident/incident investigations. The TapRoot[®] System provides a methodology to lead an investigator through the techniques and steps used to perform an in-depth investigation of an incident's root causes. Training focuses on developing a flow diagram of the events and conditions leading up to the undesired incident, evaluating each condition, identifying causal factors, and evaluating each factor as to root cause. The course will include training on Systems Improvement's SnapCharT[®] and Root Cause Tree[®] software.

The SnapCharT[®] software is a graphic presentation of the sequence of events identified and discovered during the physical onsite investigation. A SnapCharT[®] helps the investigator organize the information gathered, identify the contributing factors that lead to the incident, and identify causal factors. In addition, it helps the investigator identify holes and inconsistencies in the information gathered during the investigation.

The Root Cause Tree[®] software takes over where a SnapCharT[®] stops. While the SnapCharT[®] looks at what happened and the contributing factors involved, the Root Cause Tree[®] looks at why it happened. The Root Cause Tree[®] provides the investigator with a comprehensive list of the root causes that should be considered for every incident.

Students should bring their laptop computers.

Contents:

- ◆ Equipment Failure Analysis including:
 - Design Failures
 - Defective Parts
 - Preventive/Predictive Maintenance

**TapRoot® SYSTEM ACCIDENT/INCIDENT
INVESTIGATION TRAINING** *(continued)*

- ◆ Human Performance Difficulty Analysis including:
 - Procedures
 - Training
 - Quality Control
 - Communications
 - Management Systems
 - Human Engineering
 - Work Direction

Technical Coordinators: Scott Mandeville
Roy Milam
Course Length: 3 days
Tuition: None
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.

Contents:

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

Technical Coordinators: William McKinney
Scott Mandeville

Course Length: 3 days

Tuition: \$231.00

Dates: May 3-5, 2005

August 9-11, 2005

**UNDERGROUND HAULAGE,
TRANSPORTATION, AND
MACHINERY (COAL)**
[HL321C]



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

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

Contents:

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

Technical Coordinator: Roy Milam
Course Length: 2 days
Tuition: \$154.00
Dates: May 24-25, 2005

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 (LP311C05)

Richard McDorman, Coordinator

SCHEDULE

October 19-28, 2004
January 25-February 3, 2005
April 5-14, 2005
August 2-11, 2005

SURFACE COAL MINE SAFETY AND HEALTH INSPECTORS (LP312C05)

Johnnie Tyler, Coordinator

SCHEDULE

November 30-December 9, 2004
July 12-21, 2005

New subject areas will be announced later.

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.

Need More Info? Contact:

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

TELEPHONE: (304) 256-3234

FAX: (304) 256-3247

E-MAIL: fuller.doris@dol.gov

COAL CURRICULUM (MODULES I-VIII)

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

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

MODULE I (4 weeks)

Orientation	Effective Citation Writing	Citations and Orders
Standards of Conduct	Law, Regulation, & Policy/ Math	Writing/Notetaking
Diversity	Communications	Introduction to Laptops
Professionalism		

MODULE II (3 weeks)

Inspection Procedures	Surface Installations	Ground Control
Inspector's Portable	Combustible Materials and Rockdusting	Structural Safety
Applications for Laptops (IPAL)		Gas Detecting Devices

MODULE III (3 weeks)

Citations and Orders Review (S&S)	Roof Control I Respirable Dust	Surface Load and Haul
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MODULE IV (3 weeks)

Citations and Orders Review [104(d)] Fire Protection/Hazcom	IPAL Review Mine Maps/Ventilation I Courtroom Procedures	Workplace Examinations Simulated Inspection
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MODULE V (3 weeks)

Blasting and Explosives Citations and Orders Review [107(a)]	Mine Electricity I & II Citations and Orders Review [103(g)]	Underground Haulage Employee Health and Safety
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MODULE VI (3 weeks)

Roof Control II Impoundments Training Requirements (Part 48)	Noise/Miscellaneous Health	Accident Investigation Ventilation II
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MODULE VII (3 weeks)

Part 50 Interviewing Techniques Citations and Orders Review [104(g)/Part 48]	Diesel Permissibility Longwall High Voltage Mine Wide Monitoring Longwall	Mine Rescue/Part 49 Electrical Permissibility Introduction to Special Investigations
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MODULE VIII (3 weeks)

Repeat Violation Reduc- tion Program (RVRP) Citations and Orders Review [103(f) 103(k)/ General Review	Technical Support Field Trip Slope and Shaft Inspection Miscellaneous Safety Standards	Hoisting Conference Communi- cations/Trip to District Office Review/Graduation
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**COAL ENTRY LEVEL
MINE SAFETY AND HEALTH
INSPECTORS TRAINING**

(Dates include travel days)

GROUP 41

Module VII	October 18 – November 5, 2004	(3 weeks)
Module VIII	November 29 – December 17, 2004	(3 weeks)

GROUP 42

Module I	November 29 – December 17, 2004	(3 weeks)
Module II	January 24 – February 18, 2005	(4 weeks)
Module III	March 7 – March 25, 2005	(3 weeks)
Module IV	April 25 – May 13, 2005	(3 weeks)
Module V	June 13 – July 1, 2005	(3 weeks)
Module VI	August 1 – August 19, 2005	(3 weeks)
Module VII	September 19 – October 7, 2005	(3 weeks)
Module VIII	November 28 – December 16, 2005	(3 weeks)

GROUP 43

(To be determined)

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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 \$231.00 for a three-day class; \$154.00 for a two-day class; and \$77.00 for a one-day class.

Additional information may be obtained by contacting the Course Coordinators: Mac A. Carnes (304) 256-3398; Naomi A. Hughes (304) 256-3313; or Betty Hogan (304) 256-3235.

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® WORD 2002

[CT706G05]

Microsoft® Word 2002 is a word-processing program that is used to compose and update a wide range of business documents. It offers many desktop-publishing features that let you enhance the appearance of documents. Word also has the power and flexibility to produce professional documents quickly and easily.

Contents:

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

Technical Coordinators: Mac Carnes
Naomi Hughes

Course Length: 3 days

Tuition: \$231.00

Dates: December 7-9, 2004
March 22-24, 2005
September 13-15, 2005

**MICROSOFT® WINDOWS 2000/
MICROSOFT® OUTLOOK 2002
[CT701G05]**

Windows 2000 is an operating system that organizes files, runs programs, and coordinates work. This course will explore some of the basic features of the Windows desktop.

Contents:

- ◆ Use the Windows Desktop
- ◆ Customize Windows to the Way You Work
- ◆ Work with Files and Folders
- ◆ Print - How to Add a Network Printer
- ◆ Change Windows Settings
- ◆ Change Password
- ◆ Use the System Tools
- ◆ Use of Network Drives vs. Local Drives
- ◆ Log Onto the Network vs. Local Drives
- ◆ Virus Utilities
- ◆ Remote Access

Microsoft® Outlook 2002 is a desktop communications program that helps manage time and information more effectively and enables users to share information and collaborate with others more easily.

Contents:

- ◆ Mailbox Folder Creation
- ◆ Limitation on Mailbox Size
- ◆ How to Determine Mailbox Size
- ◆ Customize and Organize Email Messages
- ◆ Personal/Public Shared Folder
- ◆ Personal/Global Address Book
- ◆ Schedule and Manage Meetings

- ◆ Create and Organize Contacts/Tasks/Notes
- ◆ Customize Outlook
- ◆ Insert Hyperlinks to Files
- ◆ Remote Access
- ◆ Manage your Calendar
- ◆ Use the Journal
- ◆ Out of Office Assistant

Technical Coordinator: Naomi Hughes
Course Length: 2 days
Tuition: \$154.00
Dates: January 19-20, 2005
February 15-16, 2005
May 17-18, 2005

MICROSOFT® POWERPOINT 2002

[CT711G05]

Microsoft® PowerPoint 2002 is a presentation program that allows users to create overhead slides, speaker notes, audience handouts and outlines – all in a single presentation file. PowerPoint offers powerful tools to help create and organize a presentation step by step. This class includes hands-on work in the Computer Laboratory, and development of a sample presentation.

Contents:

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

Technical Coordinators: Mac Carnes
Naomi Hughes

Course Length: 3 days

Tuition: \$231.00

Dates: November 30-December 2, 2004
January 25-27, 2005
August 30-September 1, 2005

MICROSOFT® EXCEL 2002 – BASIC
[CT721G05]

Excel 2002 is a spreadsheet program that can be used to organize, analyze and attractively present data, such as a budget or sales report. This course requires a prior knowledge of computers. Classroom activities include hands-on work in the Computer Laboratory.

Contents:

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

Technical Coordinators: Mac Carnes
Naomi Hughes

Course Length: 3 days

Tuition: \$231.00

Dates: January 4-6, 2005
April 5-7, 2005
July 26-28, 2005

MICROSOFT[®] EXCEL 2002 – INTERMEDIATE
[CT722G05]

Excel 2002 is a spreadsheet program that can be used to organize, analyze and attractively present data, such as a budget or sales report. This course requires a prior knowledge of computers and the Basic Excel course. Activities include hands-on work in the Computer Laboratory.

Contents:

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

Technical Coordinators: Mac Carnes
Naomi Hughes

Course Length: 3 days

Tuition: \$231.00

Dates: March 29-31, 2005
June 28-30, 2005
September 20-22, 2005

MICROSOFT® ACCESS 2002 – BASIC
[CT731G05]

Access 2002 is a database program that allows users to store and manage large collections of information. Access provides all the tools needed to create an efficient and effective database. This course requires a prior knowledge of computers. Activities include hands-on work in the Computer Laboratory.

Contents:

- ◆ Access Basics
- ◆ Creating Databases
- ◆ Working With Fields and Records
- ◆ Querying Tables
- ◆ Creating and Using Forms
- ◆ Create, Modify, and Print Reports
- ◆ Import and Export Database Objects

Technical Coordinators: Mac Carnes
Naomi Hughes

Course Length: 3 days

Tuition: \$231.00

Dates: November 2-4, 2004
April 12-14, 2005
June 21-23, 2005

**MICROSOFT® ACCESS 2002 – INTERMEDIATE
[CT732G05]**

Access 2002 is a database program that allows users to store and manage large collections of information. Access provides all the tools needed to create an efficient and effective database. This course requires a prior knowledge of computers. Activities include hands-on work in the Computer Laboratory.

Contents:

- ◆ Creating Relational Databases
- ◆ Working With Related Tables
- ◆ Input Masks
- ◆ Advanced Query Features
- ◆ Creating Advanced Queries
- ◆ Advanced Form Design
- ◆ Advanced Report Features
- ◆ Creating Charts in Forms and Reports

Technical Coordinators: Mac Carnes
Naomi Hughes

Course Length: 3 days

Tuition: \$231.00

Dates: January 11-13, 2005
June 14-16, 2005
August 16-18, 2005

MICROSOFT® ACCESS 2002 – ADVANCED
[CT733G05]

Access 2002 is a database program that allows users to store and manage large collections of information. Access provides all the tools needed to create an efficient and effective database. This course is for experienced database users and requires a prior knowledge of Microsoft® Access. Activities include hands-on work in the Computer Laboratory.

Contents:

- ◆ Create and Use an Advanced Form
- ◆ Create and Use Macros
- ◆ Exploring Access SQL
- ◆ Managing and Protecting Databases

Technical Coordinators: Mac Carnes
Naomi Hughes

Course Length: 3 days

Tuition: \$231.00

Dates: March 1-3, 2005
August 2-4, 2005
September 27-29, 2005

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.



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 Doris Fuller at (304) 256-3234. The course will then be scheduled.

QUESTIONS?

If you need more information about contents of a course, contact the technical coordinator for that course at (304) 256-3100 or Doris Fuller at (304) 256-3234.

To Enroll Contact:

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

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

**ANNUAL RETRAINING FOR
IMPOUNDMENT QUALIFICATION
[IM602C]**

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)].

Contents:

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

Technical Coordinator: Clifford F. Lindsay
Course Length: 4 hours
Tuition: \$44.00
Dates: December 1, 2004
February 9, 2005
June 15, 2005
August 10, 2005

**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)].

Contents:

Introductory training on:

- ◆ Proper Inspection Procedures
- ◆ 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: \$77.00
Dates: November 18, 2004
February 17, 2005
May 5, 2005
July 14, 2005

**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 Coordinator: William D. McKinney
Course Length: 8 hours
Tuition: \$77.00
Dates: May 25, 2005
September 21, 2005

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 Coordinator: William D. McKinney

Course Length: 8 hours

Tuition: \$77.00

Dates: May 24, 2005

September 20, 2005

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GENERAL COURSES FOR MSHA AND THE MINING INDUSTRY

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



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 Doris Fuller at (304) 256-3234. The course will then be scheduled.

QUESTIONS?

If you need more information about contents of a course, contact the technical coordinator for that course at (304) 256-3100 or Doris Fuller at (304) 256-3234.

To Enroll Contact:

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

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

**ACCIDENT PREVENTION
TECHNIQUES
[SF601G]**



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

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

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

Contents:

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

Technical Coordinator: John Forte

Course Length: 3 days

Tuition: \$231.00

Dates: *Scheduled upon request*

**ADVANCED VENTILATION/
BLEEDER AND GOB
VENTILATION SYSTEMS
[VN302C]**



This advanced ventilation course is specifically designed for ventilation specialists, mine safety and health inspectors, supervisors, and mine managers. It will improve their understanding and working knowledge in ventilation systems for underground mining.

Contents:

- ◆ Ventilation Design
- ◆ Plan Approval
- ◆ Regulatory Compliance
- ◆ Maintenance
- ◆ Inspection/Examination
- ◆ Evaluation of Ventilation Systems
- ◆ Degasification

Technical Coordinator: Scott Mandeville
Course Length: 2 days
Tuition: \$154.00
Dates: *Scheduled upon request*

ELECTRICAL SAFETY FOR COAL MINERS

[EL601C]

This course is designed to provide practical methods and techniques to identify electrical hazards and the appropriate enforcement actions to take. 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 Coordinator: Roy Milam
Course Length: 3 days
Tuition: \$231.00
Dates: March 29-31, 2005

**ELECTRICAL SAFETY FOR METAL/NONMETAL
MINERS
[EL601M]**

This course is designed to provide practical methods and techniques to identify electrical hazards and the appropriate enforcement actions to take. 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 Coordinator: Roy Milam
Course Length: 2 days
Tuition: \$154.00
Dates: April 19-20, 2005
August 23-24, 2005
*Additional courses can be
scheduled upon request*

HAZARD COMMUNICATION (HAZCOM)

[IH616G]

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

Contents:

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

Technical Coordinators: Tom Bonifacio
William D. McKinney
John Tyler

Course Length: 1 day

Tuition: \$77.00

Dates: *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, 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 and how to write the appropriate citations. This course is for MSHA coal and metal/ nonmetal mine safety and health inspectors and industry personnel.

Contents:

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

Technical Coordinator: Joseph Fama

Course Length: 3 days

Tuition: \$231.00

Dates: November 30-December 2, 2004

**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.

Contents:

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

Technical Coordinator: William D. McKinney
Tuition: \$250.00 per student
Dates: *Limited availability; to be arranged with individual operators*

INSTRUCTOR TRAINING WORKSHOP (PART 48)

[GS641G]

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 resume 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.

The course is offered as a three (3) or four (4) day program. An **optional** MSHA First Aid class is offered the **first** day.

Contents:

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

Technical Coordinator: Robert Simmons
Course Length: 3 days (4 days with first aid)
Tuition: \$231.00 (3 days)
\$308.00 (4 days)
Dates: November 29-December 2, 2004
June 6-9, 2005
August 15-18, 2005

(All dates include one day First Aid Instructor Training)

INTERMEDIATE TOXICOLOGY
[IH606G]



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

Contents:

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

Instructor: Michelle Schaper
Technical Coordinator: William D. McKinney
Course Length: 3 days
Tuition: \$231.00
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: Jimmy L. Shumate
Course Length: 3 days
Tuition: \$231.00
Dates: August 2-4, 2005

**MARSHALL UNIVERSITY MASTERS OF SAFETY
DEGREE (MINING EMPHASIS)
[NEMU003]**

Courses will be offered pursuant to the Masters of Safety Degree (Mining Emphasis) program offered at the Academy through Marshall University.

Students must be admitted into the program **prior** to taking the courses. Application for Graduate Admission forms may be obtained by calling John Forte at (304) 256-3321.

College Chemistry 201, Math 130, and Physics 101 are prerequisites for admission to this program, as is a minimum undergraduate GPA of 2.5.

For information on spring, summer, and fall classes, contact John Rosiek at (304) 256-3211.

Technical Coordinators: John Rosiek
John Forte

Tuition: \$270 for each class for MSHA
employees
\$540 for non-MSHA employees

Dates: Spring 2005
Summer 2005
Fall 2005

**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. Hands-on exercises are stressed along with class participation.

Contents:

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

Technical Coordinator: Scott Mandeville

Course Length: 3 days

Tuition: \$231.00

Dates: November 16-18, 2004

May 10-12, 2005

**MINE CONSTRUCTION,
MAINTENANCE, AND REPAIRS
SAFETY**
[MS615G]



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

Contents:

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

Technical Coordinator: Tom Bonifacio
Course Length: 2 days
Tuition: \$154.00
Dates: *Scheduled upon request*

**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 Coordinator: Ed Newcomb
Course Length: 3 days
Tuition: \$231.00
Dates: *Scheduled upon request*

MINE RESCUE TRAINING

[ME601G]

This course is designed for mine rescue teams and mining industry personnel that 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: David Friley

Course Length: 1 day

Tuition: \$77.00*

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 Coordinator: William D. McKinney
Course Length: 3 days
Tuition: \$231.00
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: John Forte
Course Length: 1 day
Tuition: \$77.00
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.

Contents:

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

Technical Coordinators: Clifford F. Lindsay
John Tyler

Course Length: 3 days

Tuition: \$231.00

Dates: *Scheduled upon request*

**UNDERGROUND HAULAGE, TRANSPORTATION,
AND MACHINERY**
[HL606C]

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 teaches recognition of some of the hazards associated with haulage equipment and other machinery found in underground coal mines and methods to eliminate them.

Contents:

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

Technical Coordinator: Roy Milam
Course Length: 2 days
Tuition: \$154.00
Dates: March 8-9, 2005

SEMINARS/WORKSHOPS FOR MSHA AND THE MINING INDUSTRY

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

QUESTIONS?

If you need more information about contents of a seminar/ workshop, contact the technical coordinator for that seminar/ workshop at (304) 256-3100 or Doris Fuller at (304) 256-3234.

To Enroll Contact:

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

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

**ACCIDENT INVESTIGATION RETRAINING
SEMINAR
[IV401G05]**

This seminar is designed to provide continuing education training to MSHA Accident Investigators on a bi-annual basis. Current accident investigators in Coal, Metal/Nonmetal, Technical Support, and EPD are required to attend one of the two journeyman level retraining seminars.

A prerequisite for the seminar is the two-week Basic Accident Investigation and Report Writing course offered by the Academy. The first of the bi-annual seminars was conducted in February 2004. Those investigators who were unable to attend in 2004 should plan to attend the second seminar in 2005. Space is limited to half the investigators in FY 2005 with the other half in FY 2006. **Students should bring their laptop computers.**

Some of the projected topics for the seminar are:

- ◆ Advanced Interviewing Techniques
- ◆ Using Tape Recorders During Interviewing
- ◆ Legal Issues Involving MSHA Investigations
- ◆ Advanced Evidence Collection
- ◆ Critical Incident Stress
- ◆ Report Writing
- ◆ Scene Preservation and Sketching
- ◆ Human Error in Accident Investigation

Technical Coordinator: Scott Mandeville
Course Length: 7 days
Tuition: None
Dates: February 23-March 3, 2005
*Additional courses can be
scheduled upon request*

**HAULAGE WORKSHOP
(PRIOR SURFACE HAULAGE SAFETY SEMINAR)
[HL502G05]**

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

Contents:

- ◆ Equipment Brake Systems
- ◆ Equipment Safety Instructions
- ◆ Tire Care and Maintenance
- ◆ Crane Safety
- ◆ Cab Ergonomics
- ◆ Discriminating Alarm Systems
- ◆ 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
- ◆ Specific Equipment Systems (Loaders, Trucks, Dozers, Shovels)
- ◆ Loss Prevention – Haulage
- ◆ New Automation Technologies – Conveyors, Plants, Mills
- ◆ Safe Handling and Transport of Bulk Blasting Agents
- ◆ Safety Aspects of Mounting/Demounting Tires
- ◆ Haul Road Design

Technical Coordinator: Wayne L. Lively
Course Length: 2 days
Tuition: None
Dates: May 17-18, 2005

MINE BLASTING SAFETY AND APPLICATION SEMINAR

[EX521G05]

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

Contents:

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

Technical Coordinator: Wayne L. Lively
Course Length: 2½ days
Tuition: None
Dates: January 19-21, 2005

**MINE CONSTRUCTION, MAINTENANCE, AND
REPAIRS SAFETY WORKSHOP**
[MS501G05]

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.

Contents:

- ◆ Blasting in Construction
- ◆ Fall Protection Systems
- ◆ Electrical Hazards Affecting Construction
- ◆ Equipment Practices and Workplace Examinations
- ◆ Crane Safety
- ◆ Working in Confined Spaces
- ◆ Structure Demolition
- ◆ Retrofit Noise Controls
- ◆ Wire Ropes and Slings Used in Construction
- ◆ Accident Review
- ◆ How Contractors are Affected by 30 CFR Parts 46 and 48
- ◆ Welding Safety
- ◆ Compliance Guide for 30 CFR, Part 47 Hazard Communication (HazCom)
- ◆ Wire Rope Testing

Technical Coordinator: Tom Bonifacio
Course Length: 2 days
Tuition: None
Dates: April 12-13, 2005

ROOF CONTROL SEMINAR

[RC501C05]

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 wishing to increase their knowledge of the latest developments in roof and rib control will also find this seminar very beneficial.

This seminar will update personnel on new products and methods related to roof stability. It will also include presentations by personnel from the Academy, Technical Support, MSHA headquarters, other government agencies, and industry. All subjects will incorporate safe mining practices which will help reduce roof fall injuries and fatalities. The seminar will discuss new roof control techniques, trends, and developments.

Contents:

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

Technical Coordinators: Joseph Fama
John Rosiek

Course Length: 2 days

Tuition: None

Dates: June 1-2, 2005

**TRAM/NATIONAL MINE INSTRUCTORS SEMINAR
[GS501G05]**

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: Sharon T. Casto
Course Length: 2½ days
Tuition: None
Dates: October 12-14, 2004
October 11-13, 2005

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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:

Accident Investigators [IV401G05 - 49 hours]

Coordinator: Scott Mandeville

February 23 - March 3, 2005

Administrative/Clerical Personnel [GS711G05 - 21 hours]

Coordinator: Judy Burns

May 10-12, 2005

July 12-14, 2005

Electrical Specialists

Coordinator: Ed Newcomb

April 26 - May 5, 2005 (Coal) [EL401C05 - 56 hours]

Health Specialists [IH401G05]

Coordinator: William D. McKinney

(Dates not available at time of publication)

Impoundment Specialists [IM401C05 - 21 hours]

Coordinator: Cliff Lindsay

March 15-17, 2005

MNM Journeyman Mine Safety and Health Inspectors

[LP311M05 - 56 hours]

Coordinator: Tom Bonifacio

December 7-16, 2004

February 8-17, 2005

March 22-31, 2005

Roof Control Specialists [RC401C05 - 21 hours]

Coordinator: John Rosiek

April 19-21, 2005

Special Investigators [IV402G]

Coordinator: Robert Simmons

October 19-28, 2004

Surface Coal Mine Safety and Health Inspectors

[LP312C05 - 56 hours]

Coordinator: John Tyler

November 30 - December 9, 2004

July 12-21, 2005

Underground Coal Mine Safety and Health Inspectors

[LP311C05 - 56 hours]

Coordinator: Richard McDorman

October 19-28, 2004

January 25 - February 3, 2005

April 5-14, 2005

August 2-11, 2005

Ventilation Specialists [VN401C05 - 21 hours]

Coordinator: Scott Mandeville

August 16-18, 2005

SUPERVISORY TRAINING

COAL AND METAL/NONMETAL

[GS451G05]

MSHA has developed a new Management Education Policy and will be implementing a Leadership Intensive Course for GS-13, 14, and 15 supervisors/managers, as well as other supervisory training, this fiscal year. Schedules, dates, and supervisors eligible to receive the training have yet to be determined.

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SCHEDULE OF ACADEMY EVENTS

By Date

OCTOBER 2004

October 11 - 15, 2004

- ◆ TRAM/National Mine Instructors Seminar. 10/12-14/04

October 18 - 22, 2004

- ◆ Special Investigators Retraining 10/19-28/04
- ◆ Underground Coal Mine Safety and Health
Inspectors Retraining. 10/19-28/04

NOVEMBER 2004

November 1 - 5, 2004

- ◆ Microsoft® Access 2002 – Basic. 11/2-4/04
- ◆ Slope and Shaft Sinking safety 11/2-3/04

November 15 - 19, 2004

- ◆ Haulage (Surface) (MNM) 11/16-18/04
- ◆ Mine Accident Investigation Techniques 11/16-18/04
- ◆ Qualification for Impoundment Inspection
(8 hrs) 11/18/04

November 29 – December 3, 2004

- ◆ Instructor Training Workshop (Part 48). 11/29-12/2/04
- ◆ Hoists and Elevators. 11/30-12/2/04
- ◆ Microsoft® PowerPoint 2002 11/30-12/2/04
- ◆ Mine Accident Investigation and Report
Writing 11/30-12/9/04

November 29 – December 3, 2004 (continued)

- ◆ Surface Coal Mine Safety and Health
Inspectors Retraining 11/30-12/9/04
- ◆ Annual Retraining for Impoundment
Qualification (4 hrs) 12/01/04

DECEMBER 2004

December 6 - 10, 2004

- ◆ Metal/Nonmetal Mine Safety and Health
Inspectors Retraining 12/7-16/04
- ◆ Microsoft® Word 2002 12/7-9/04
- ◆

JANUARY 2005

January 3 - 7, 2005

- ◆ Microsoft® Excel 2002 – Basic 01/4-6/05

January 10 - 14, 2005

- ◆ Blasting (Surface) (Coal) 01/11-13/05
- ◆ Electrical Hazards 01/11-13/05
- ◆ Microsoft® Access 2002 – Intermediate 01/11-13/05

January 17 - 21, 2005

- ◆ Microsoft® Windows 2000/Microsoft®
Outlook 2002 01/19-20/05
- ◆ Mine Blasting Safety and Application
Seminar 01/19-21/05

January 24 - 28, 2005

- ◆ Microsoft® PowerPoint 2002 01/25-27/05
- ◆ Underground Coal Mine Safety and Health
Inspectors Retraining 01/25-2/3/05

FEBRUARY 2005

January 31 – February 4, 2005

- ◆ Mine Accident Investigation and Report
Writing 02/1-10/05
- ◆ Haulage (Surface) (Coal) 02/1-3/05

February 7 - 11, 2005

- ◆ Metal/Nonmetal Mine Safety and Health
Inspectors Retraining. 02/8-17/05
- ◆ Annual Retraining for Impoundment
Qualification (4 hrs) 02/9/05

February 14 - 18, 2005

- ◆ Microsoft® Windows 2000/Microsoft®
Outlook 2000. 02/15-16/05
- ◆ Qualification for Impoundment Inspection
(8 hrs) 02/17/05

February 21 - 25, 2005

- ◆ Accident Investigation Retraining Seminar . . 02/23-3/3/05

MARCH 2005

February 28 – March 4, 2005

- ◆ Microsoft® Access 2002 – Advanced 03/1-3/05

March 7 - 11, 2005

- ◆ Blasting (Surface) (MNM) 03/8-10/05
- ◆ Underground Haulage, Transportation, and
Machinery 03/8-9/05

March 14 - 18, 2005

- ◆ Impoundment Specialists Retraining 03/15-17/05

March 21 - 25, 2005

- ◆ Metal/Nonmetal Mine Safety and Health
Inspectors Retraining. 03/22-31/05
- ◆ Microsoft® Word 2002 03/22-24/05

March 28 – April 1, 2005

- ◆ Electrical Safety for Coal Miners 03/29-31/05
- ◆ Explosion Prevention 03/29-30/05
- ◆ Microsoft® Excel 2002 – Intermediate 03/29-31/05

APRIL 2005

April 4 - 8, 2005

- ◆ Microsoft® Excel 2002 – Basic 04/5-7/05
- ◆ Mine Accident Investigation and Report
Writing 04/5-14/05
- ◆ Underground Coal Mine Safety and Health
Inspectors Retraining. 04/5-14/05

April 11 - 15, 2005

- ◆ Microsoft® Access 2002 – Basic 04/12-14/05
- ◆ Mine Construction, Maintenance, and
Repairs Safety Workshop 04/12-13/05

April 18 - 22, 2005

- ◆ Electrical Safety for Metal/Nonmetal Miners . . 04/19-20/05
- ◆ Roof Control Specialists Retraining 04/19-21/05

April 25 – 29, 2005

- ◆ Electrical Specialists Retraining (Coal) 04/26-05/5/05

MAY 2005

May 2 - 6, 2005

- ◆ Underground Diesel Equipment/Ventilation. . . . 05/3-5/05
- ◆ Qualification for Impoundment Inspection
(8 hrs.) 05/5/05

May 9 - 13, 2005

- ◆ Administrative/Clerical Personnel
Retraining 05/10-12/05
- ◆ Coal Impoundment and Refuse Pile
Inspection 05/10-11/05
- ◆ Longwall Mining and Inspection Procedures . . 05/10-12/05
- ◆ Mine Accident Investigation Techniques 05/10-12/05

May 16 - 20, 2005

- ◆ Haulage Workshop (prior Surface Haulage
Safety Seminar) 05/17-18/05
- ◆ Microsoft® Windows 2000/Microsoft®
Outlook 2000 05/17-18/05

May 23 - 27, 2005

- ◆ Respirable Coal Mine Dust Sampling
Certification 05/24/05
- ◆ Underground Haulage, Transportation, and
Machinery (Coal) 05/24-25/05
- ◆ Respirable Coal Mine Dust Sampler
Calibration/Maintenance Certification 05/25/05

JUNE 2005

May 30 – June 3, 2005

- ◆ Roof Control Seminar 06/1-2/05

June 6 – 10, 2005

- ◆ Instructor Training Workshop (Part 48) 06/6-9/05

June 13 - 17, 2005

- ◆ Annual Retraining for Impoundment Qualification (4 hrs.) 06/15/05
- ◆ Microsoft® Access 2002 – Intermediate 06/14-16/05

June 20 - 24, 2005

- ◆ Microsoft® Access 2002 – Basic 06/21-23/05

June 27 – July 1, 2005

- ◆ Microsoft® Excel 2002 – Intermediate 06/28-30/05

JULY 2005

July 11 - 15, 2005

- ◆ Administrative/Clerical Personnel Retraining 07/12-14/05
- ◆ Surface Coal Mine Safety and Health Inspectors Retraining. 07/12-21/05
- ◆ Qualification for Impoundment Inspection (8 hrs.) 07/14/05

July 25 – July 29, 2005

- ◆ Microsoft® Excel 2002 – Basic 07/26-28/05
- ◆ Mine Accident Investigation and Report Writing 07/26-8/4/05

AUGUST 2005

August 1 - 5, 2005

- ◆ Introduction to Mining 08/2-4/05
- ◆ Microsoft® Access 2002 – Advanced 08/2-4/05
- ◆ Underground Coal Mine Safety and Health Inspectors Retraining. 08/2-11/05

August 8 - 12, 2005

- ◆ Underground Diesel Equipment/Ventilation. . . 08/9-11/05
- ◆ Annual Retraining for Impoundment
Qualification (4 hrs) 08/10/05

August 15 - 19, 2005

- ◆ Instructor Training Workshop (Part 48) 08/15-18/05
- ◆ Microsoft® Access 2002 – Intermediate 08/16-18/05
- ◆ Ventilation Specialists Training 08/16-18/05

August 22 - 26, 2005

- ◆ Coal Impoundment and Refuse Pile
Inspection 08/23-24/05
- ◆ Electrical Safety for Metal/Nonmetal Miners. . 08/23-24/05
- ◆ Industrial Hygiene 08/23-25/05

August 29 – September 2, 2005

- ◆ Microsoft® PowerPoint 2002 08/30-09/01/05

SEPTEMBER 2005

September 12 - 16, 2005

- ◆ Microsoft® Word 2002 09/13-15/05

September 19 - 23, 2005

- ◆ Microsoft® Excel 2002 – Intermediate 09/20-22/05
- ◆ Respirable Coal Mine Dust Sampling
Certification 09/20/05
- ◆ Respirable Coal Mine Dust Sampler
Calibration/Maintenance Certification 09/21/05

September 26 – 30, 2005

- ◆ Microsoft® Access 2002 – Advanced 09/27-29/05

OCTOBER 2005

October 10-14, 2005

- ◆ TRAM/National Mine Instructors Seminar. . . 10/11-13/05

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Coal - Underground

Metal/Nonmetal - Surface

Metal/Nonmetal - Underground

Both

Other (*specify*) _____

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