

General eLearning
Course Catalog



General eLearning Course Catalog



Maintaining a skilled, knowledgeable workforce is a challenge everyone faces. With changing technologies and fluctuations within the mining industry, it can be especially daunting. Whether you need training for a new hire or a veteran, it can be difficult to find training that is engaging, technologically relevant and easy to fit into busy schedules. P&H Peak Services, the technical communication and training group within P&H Mining Equipment, strives to provide you with the knowledge, skills and competencies needed for your employees to achieve their highest performance potential.

Peak Services has identified eLearning as the primary delivery method for the knowledge components of Fundamental and Product Specific Training. eLearning provides several advantages over traditional training methods:

- eLearning content can be accessed on any computer that has Internet access by any individual who has the appropriate login and password credentials.
- Immediate availability of training content. Students receive the training they require right now, when the training is required most. This provides a quicker, more productive workforce.
- Reduces the cost of training by eliminating travel, living, and other expenses associated with Instructor Led Training.
- Provides students with the ability to learn at their own pace and in their own comfortable environment.
- Improved retention of technical and operational content.
- The training content can be delivered to a large contingent of people in varying locations and be technically consistent across the board.
- Training content can be tailored to an individual's personal strengths and weaknesses. This provides a targeted more effective training solution for today's workforce.
- When used as a prerequisite to Instructor Led Training, eLearning can level the playing field between novice and senior personal. This makes the Instructor Led Training more effective by allowing the Instructor to spend more time developing skills rather than knowledge based components.

This Course Catalog contains descriptions of the eLearning Lessons available to you through Peak Services.

Lesson Duration:

Each eLearning Lesson is designed to be 45 minutes in duration. However, because eLearning is self-paced training, actual duration may vary per student.

Target Audience:

Operators, Technicians, and Engineers who will operate and/or perform maintenance on P&H Mining Shovels and/or Drills.

Prerequisites:

Students should have a basic working knowledge of computers, and fundamental understanding of electronics, mechanics, pneumatics, hydraulics, operation, etc., as it applies to the systems of a P&H Shovel and/or Drill.

Lesson Location:

eLearning content can be accessed on any computer that has Internet access by any individual who has the appropriate login and password credentials.

Computer Requirements:

It is recommended that all computers accessing eLearning content have the basic minimum requirements:

- Internet Explorer version 7 or better.
- Flash Player version 8 or better.
- Java version 1.5 or better.
- Latest version of Windows Media Player.
- Adobe Reader version 8 or better.

General eLearning

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General Lesson Descriptions

Module 1 Introduction Lessons (MinePro Only)

Lesson 1.1 LinkOne WinView Basics

Lesson Description:

This Lesson provides a basic overview of the LinkOne WinView Viewer, how to open a Parts Manual, and basic navigation information.

Objectives:

Upon completion of this Lesson the student will:

- Have a thorough understanding of the terms and definitions associated with using LinkOne WinView.
- Be able to identify the items associated with the Mincom LinkOne Menu.
- Be able to launch LinkOne WinView and open a Parts Manual.
- Understand and identify the different sections of a P&H Parts Manual.
- Understand and use the basic Toolbar associated with the LinkOne WinView Viewer.
- Understand and use the Menu Bar associated with the LinkOne WinView Viewer.
- Know how to access Help when using the LinkOne WinView Viewer.

Lesson Outline:

- Topic 1 Introduction
- Topic 2 Getting Started
- Topic 3 Using LinkOne WinView

Lesson 1.2 Customer Contact Record

Lesson Description:

This Lesson covers the Customer Contact Records (CCR) application and highlights the MineNet version of this application.

Objectives:

Upon completion of this Lesson the student will:

- Understand the different sections of a Customer Contact Record.
- Know how to create a Customer Contact Record.

Lesson Outline:

- Topic 1 CCR
- Topic 2 Main Page
- Topic 3 Creating a Record
- Topic 4 Record Type Tabs

Lesson 1.3 Fiberlink

Lesson Description:

In this Lesson, you will learn how to gain access to your P&H information. Whether you are using a company-issued computer or your own computer, this Lesson will assist you in understanding the different methods of logging in.

Objectives:

Upon completion of this Lesson the student will:

- Understand Remote Access.
- Understand how to use Wi-Fi Connection.
- Understand how to use a broadband connection.
- Understand how to use a dialup connection.
- Understand how to use a non-company PC connection.
- Understand extranet access information.
- Understand how to troubleshoot problems.

Lesson Outline:

- Topic 1 Remote Access Overview
- Topic 2 Wi-Fi Connection
- Topic 3 Broadband Connection
- Topic 4 Dialup Connection
- Topic 5 Non-Company PC Connection
- Topic 6 Extranet Access Information
- Topic 7 Troubleshooting

Lesson 1.4 Laptop Overview

Lesson Description:

This Lesson identifies components and discusses the basic use of a P&H Mining Equipment laptop. The laptop overview program is an effort to give all P&H employees the ability to understand and use computer based technologies.

Objectives:

Upon completion of this Lesson the student will:

- Understand the basic use of the laptop.
- Understand the basic use of a Latitude D400, D410, D420, D600, D610, or D620.

Lesson Outline:

- Topic 1 Laptop Overview
 - Subtopic 1 Latitude D400 Overview
 - Subtopic 2 Latitude D410 Overview
 - Subtopic 3 Latitude D420 Overview
 - Subtopic 4 Latitude D600 Overview
 - Subtopic 5 Latitude D610 Overview
 - Subtopic 6 Latitude D620 Overview

Lesson 1.5 Lotus Notes Basics

Lesson Description:

This Lesson will explore connecting to Lotus Notes, the Welcome Page, Notes Workspace, toolbars, Lotus Notes navigation, printing, replicating, and exporting data in Personal Views.

Objectives:

Upon completion of this Lesson the student will:

- Understand how to access and use Lotus Notes.
- Be familiar with the Welcome Page in Lotus Notes.
- Understand the Lotus Notes workspace, toolbars, navigation, and printing formats.
- Understand how to replicate and export data in Personal Views.

Lesson Outline:

- Topic 1 Accessing Lotus Notes
- Topic 2 Welcome Page

Lesson 1.6 MineNet Basic

Lesson Description:

This Lesson is provided as an introduction to understanding and using P&H Mining Equipment's Intranet.

Objectives:

Upon completion of this Lesson the student will:

- Have a basic understanding of computer networks.
- Understand MineNet availability.
- Understand Main Page layout, navigation, searching, requesting application access, the My MineNet function, publishing to MineNet, and reasons for contacting the Help Desk.

Lesson Outline:

- Introduction
- Topic 1 MineNet Availability
- Topic 2 MineNet Main Page
- Topic 3 MineNet Navigation
- Topic 4 Requesting Application Access
- Topic 5 Publishing to MineNet
- Topic 6 MineNet Help

Lesson 1.7 Printer Overview

Lesson Description:

This Lesson will help you understand the different function of the printers at P&H Mining Equipment.

Objectives:

Upon completion of this Lesson the student will:

- Understand the front, back, and bottom of the printer.
- Understand how to install a Printer on their local computer.

- Understand how to load paper to a Printer.
- Understand how to install a Battery
- Understand how to replace Printer ink cartridges.
- Understand the Printer buttons and lights.

Lesson Outline:

- Topic 1 View of Front of Printer
- Topic 2 View of Back of Printer
- Topic 3 View of Bottom of Printer
- Topic 4 Installing Printer
- Topic 5 Loading Printer Paper
- Topic 6 Installing Battery
- Topic 7 Installing Wireless card
- Topic 8 Replacing Cartridges
- Topic 9 View of Printer Buttons and Lights

Lesson 1.8 Windows Overview

Lesson Description:

This Lesson describes the basic components of the Windows interface, basic definitions, as well as how to start an application.

Objectives:

Upon completion of this Lesson the student will:

- Understand what Windows is and be able to describe the advantages of having a Windows operating system.
- Understand the components associated with Windows.
- Understand how to start an application and the components associated with them.
- Understand opening multiple applications and navigating between them.

Lesson Outline:

- Topic 1 What is Windows?
- Topic 2 Advantages of Windows
- Topic 3 The Windows Desktop
- Topic 4 The Mouse
- Topic 5 Windows Components
- Topic 6 Starting an Application
- Topic 7 Working with Multiple Applications

Module 2 Safety Lessons (MinePro Only)

Lesson 2.1 General Safety Precautions

Lesson Description:

In this Lesson you will learn about the general safety issues associated with P&H Electric Mining Shovels.

Objectives:

Upon completion of this Lesson the student will:

- State the purpose of a Lockout/Tagout program.
- Identify sources of safety information/references.
- Identify the responsibilities of all crew members.
- State the purpose of planning a job.

Lesson Outline:

- Topic 1 Lockout/Tagout
- Topic 2 Safety Sources
- Topic 3 Responsibility of All Crew Members
- Topic 4 Planning the Job

Lesson 2.2 Electrical Hazards

Lesson Description:

This Lesson will identify some common sense electrical safety rules you can use to be safe while working on the electrical equipment.

Along with these common sense electrical safety rules, this Lesson teaches you how to perform a general Risk Analysis that will help you identify those electrical hazards that are associated with your particular situation.

Objectives:

Upon completion of this Lesson the student will:

- Identify and describe safety concerns on P&H Electric Mining Shovels as related to electrical hazards.
- Describe how to perform a risk analysis of the electrical system.
- State the definition of ESD and explain how to avoid damaging equipment through the transfer of static energy.

Lesson Outline:

- Topic 1 General Electrical Safety
- Topic 2 Risk Analysis
- Topic 3 ESD

Lesson 2.3 Mechanical Hazards

Lesson Description:

This Lesson will identify some common sense mechanical safety rules you can use to be safe while working on the equipment.

Along with these common sense mechanical safety rules, this Lesson teaches you how to perform a general Risk Analysis that will help you identify those mechanical hazards that are associated with your particular situation.

Objectives:

Upon completion of this Lesson the student will:

- Identify and describe safety concerns on P&H Electric Mining Shovels as related to mechanical hazards.
- Describe how to perform a risk analysis of the mechanical systems.

Lesson Outline:

- Topic 1 General Mechanical Safety
- Topic 2 Risk Analysis

Lesson 2.4 Noise Hazards

Lesson Description:

This Lesson will identify some common sense noise hazard prevention you can use to be safe while working on the equipment.

Objectives:

Upon completion of this Lesson the student will:

- Identify and describe safety concerns as related to noise hazards.

Lesson Outline:

- Topic 1 Noise Sampling
- Topic 2 Hearing Safety

Lesson 2.5 Fire Hazards

Lesson Description:

This Lesson provides information on the different types and classes of fires, the types of fire extinguishers used on P&H Electric Mining Shovels and how to use them, and provides some basic fire safety rules to use while performing work on P&H Electric Mining Shovels.

Objectives:

Upon completion of this Lesson the student will:

- Identify different types of fires and explain their different characteristics.
- Explain how to use the fire extinguisher provided on P&H Mining Equipment.
- Explain what the Automatic Fire Suppression System, provided on some P&H Electric Mining Shovels, is.
- Identify basic fire prevention rules as they apply to P&H Electric Mining Shovels.

Lesson Outline:

- Topic 1 Types of Fires

- Topic 2 Fire Extinguishers
- Topic 3 Fire Prevention and Control

Lesson 2.6 Operational Hazards

Lesson Description:

This Lesson will describe some basic safety rules associated with operating a P&H Electric Mining Shovel. It will also provide information on performing a risk analysis which will help you identify safety concerns that may be specific to your working environment.

Objectives:

Upon completion of this Lesson the student will:

- Identify and describe safety concerns on P&H Electric Mining Shovels as related to Operational Hazards.
- Describe how to conduct a risk analysis on operating a P&H Electric Mining Shovel.

Lesson Outline:

- Topic 1 Operator Qualifications
- Topic 2 Operator Conduct and Responsibility
- Topic 3 Risk Analysis

Lesson 2.7 Arc Flash

Lesson Description:

This Lesson provides information on Arc Flash/Blast, how to set up Arc Flash Boundaries, Electrical Safety Practices when dealing with electrically charged equipment, knowledge of Personal Protective Equipment, tools used when working on items that can cause arc flash/blasts and understanding the labeling on equipment that may cause arc flash/blasts.

Objectives:

Upon completion of this Lesson the student will:

- Understand Arc Flash.
- Have knowledge of an Arc Flash/Blast.
- Understand safe Arc Flash Boundaries.
- Have knowledge of Electrical Safety Practices as they apply to Arc Flash/Blasts.
- Understand the different types of Personal Protective Equipment used for Arc Flash/Blast protection.
- Understand different types of Arc Flash/Blast tools.
- Understand what labels are used and their meanings in regards to Arc Flash/Blast.

Lesson Outline:

- Topic 1 Introduction to Arc Flash
- Topic 2 Arc Flash/Blast
- Topic 3 Arc Flash Boundary
- Topic 4 Electrical Safety Practices
- Topic 5 Personal Protective Equipment (PPE)
- Topic 6 Tools
- Topic 7 Labeling
- Topic 8 Conclusion

Module 3 Product Overview Lessons

Lesson 3.1 Shovel Operation Overview

Lesson Description:

In this Lesson you will learn about the different motions associated with a P&H Electric Mining Shovel and the controls used by the Operator.

Objectives:

Upon completion of this Lesson the student will:

- Describe the different motions associated with P&H Electric Mining Shovels.
- Describe the basic Operator Controls associated with the Loading Control Center.
- Describe the basic Operator Controls associated with older style P&H Electric Mining Shovels.

Lesson Outline:

- Topic 1 Motions
- Topic 2 Shovel Controls

Lesson 3.2 Shovel Orientation

Lesson Description:

In this Lesson you will learn where common shovel mechanical and electrical components are located and get a brief description of their purpose.

Objectives:

Upon completion of this Lesson the student will:

- Describe the different exterior components associated with P&H Electric Mining Shovels.
- Identify and locate components associated with the exterior of the shovel.
- Describe the different interior components associated with P&H Electric Mining Shovels.
- Identify different shovel deck plans and locate components associated with those deck plans.

Lesson Outline:

- Topic 1 Shovel Exterior Components
- Topic 2 Machinery Deck Layout

Lesson 3.3 Shovel Electrical Overview

Lesson Description:

In this Lesson you will learn where common shovel electrical components are located and get a brief description of their purpose.

Objectives:

Upon completion of this Lesson the student will:

- Locate and state the purpose of the components used in distributing power on a P&H Electric Mining Shovel.
- Locate and state the purpose of the components used in converting power on a P&H Electric Mining Shovel.

- Locate and state the purpose of the major protection circuits associated with a P&H Electric Mining Shovel.
- Locate and state the purpose of components used for Reactive Power Compensation on a P&H Electric Mining Shovel.
- Locate and state the purpose of the DC Motors associated with a P&H Electric Mining Shovel.

Lesson Outline:

- Topic 1 Power Distribution
- Topic 2 Power Conversion
- Topic 3 Protection Circuits
- Topic 4 Reactive Power Compensation
- Topic 5 DC Motors

Lesson 3.4 P&H Centurion Control System - Touch Panels

Lesson Description:

In this Lesson you will learn about the new Operator interface, or Touch Panel, associated with the Centurion Control System.

Objectives:

Upon completion of this Lesson the student will:

- Explain and identify the different parts of the Centurion Control System Touch Panel.
- Identify and navigate through the various Operational Screens associated with the Centurion Control System Touch Panel.
- Identify and navigate through the various Diagnostic Screens associated with the Centurion Control System Touch Panel.
- Identify and navigate through the various Setup Screens associated with the Centurion Control System Touch Panel.
- Identify and navigate through the various Activity Screens associated with the Centurion Control System Touch Panel.
- Identify and navigate through the various Help Screens associated with the Centurion Control System Touch Panel.

Lesson Outline:

- Topic 1 Touch Panel Basics
- Topic 2 Operation Screens
- Topic 3 Diagnostic Screens
- Topic 4 Setup Screens
- Topic 5 Activity Screens
- Topic 6 Help Screens

Lesson 3.5 Shovel Electrical Overview AC Shovels

Lesson Description:

This Lesson provides the learner with a general overview of some of the electrical components of the P&H AC Shovel.

Objectives:

Upon completion of this Lesson the student will:

- Have a basic understanding of the Power Distribution on a P&H AC Shovel.
- Have a basic understanding of the purpose of the different Protection Circuits used on a P&H AC Shovel.
- Identify the location of the AC Motors used on a P&H AC Shovel.

Lesson Outline:

- Topic 1 Power Distribution
- Topic 2 Protection Circuits
- Topic 3 AC Motors

Lesson 3.6 P&H Centurion Control Systems - Touch Panels - AC

Lesson Description:

This Lesson introduces the Shovel Operator and Maintenance Technician to the different screens associated with a Centurion AC Shovel Touch Panel.

Objectives:

Upon completion of this Lesson the student will:

- Have a thorough understanding of the layout of a Centurion AC Shovel Touch Panel.
- Have a thorough understanding of the Operation Screens and how to navigate through them.
- Have a thorough understanding of the Diagnostic Screens and how to navigate through them.
- Have a thorough understanding of the Setup Screens and how to navigate through them.
- Have a thorough understanding of the Activity Screens and how to navigate through them.
- Have a thorough understanding of the Help Screens and how to navigate through them.

Lesson Outline:

- Topic 1 Touch Panel Basics
- Topic 2 Operation Screens
- Topic 3 Diagnostic Screens
- Topic 4 Setup Screens
- Topic 5 Activity Screens
- Topic 6 Help Screens

Lesson 3.7 120A Blasthole Drill Overview

Lesson Description:

This Lesson will provide a base knowledge of the 120A drill. Descriptions and locations of the various components will be provided to give a better understanding of the drills functions and layout.

Objectives:

Upon completion of this Lesson the student will:

- Discuss major historical developments and facts of P&H Blasthole Drills.
- Identify the importance of the P&H Blasthole Drills in mine operations.
- Describe the purpose and capabilities of the 120A Blasthole Drill.
- Identify the main systems of the 120A Blasthole Drill.

Lesson Outline:

- Topic 1 120A Blasthole Drill Introduction
- Topic 2 120A Main Systems

Lesson 3.8 320XPC Product Overview

Lesson Description:

This Lesson will provide a base knowledge of the new 320XPC drill. Descriptions and locations of the various components will be provided to give a better understanding of the drills new layout.

Objectives:

Upon completion of this Lesson the student will:

- Discuss major historical developments and facts of P&H Blasthole Drills.
- Identify the importance of the P&H Blasthole Drills in mine operations.
- Describe the purpose and capabilities of the 320XPC Blasthole Drill.
- Identify the main systems of the 320XPC Blasthole Drill.

Lesson Outline:

- Topic 1 320XPC Blasthole Drill Introduction
- Topic 2 320XPC Main Systems

Lesson 3.9 250XP Introduction

Lesson Description:

This Lesson will provide a base knowledge of the 250XP drill. Descriptions and locations of the various components will be provided to give a better understanding of the drills new layout.

Objectives:

Upon completion of this Lesson the student will:

- Discuss major historical developments and facts of P&H Blasthole Drills.
- Identify the importance of the P&H Blasthole Drills in mine operations.
- Describe the purpose and capabilities of the 250XP Blasthole Drill.
- Identify the main systems of the 250XP Blasthole Drill.

Lesson Outline:

- Topic 1 250XP Blasthole Drill Introduction
- Topic 2 250XP Main Systems



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All designs, specifications and components of the equipment described above are subject to change at the manufacturer's sole discretion at any time without advance notice. Data and descriptions published herein are informational in nature and shall not be construed to warrant the service or the suitability of the equipment for any particular purpose as performance may vary with the conditions encountered. The only warranty applicable is our standard written warranty for this equipment or service.

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