

## PHASE 1 - ADMINISTRATION & SAFETY

COVERAGE		COURSE FORMAT	HRS
All	Skills USA Career Essentials or Equivalent <i>11th grade level</i>	On Own	40
All	Hazardous Communication <i>MSHA Training (Required by the Federal Mine Safety and Health Administration)</i> <i>Safety Data Sheet Training</i> <i>Safe Materials Handling</i> <i>Safe Materials Transport</i> <i>Safe Materials Storage</i> <i>Materials Disposal</i> <i>Basic Chemical Reactions</i> <i>Signage (The Globally Harmonized System) <a href="https://www.osha.gov/dsg/hazcom/global.html">https://www.osha.gov/dsg/hazcom/global.html</a></i> <i>OSHA Training Tutorial - Understanding the GHS Labeling System</i>	Facilitated	8
All	First Aid / CPR / AED (alternate years with MSHA- BT/Red Cross administer at beginning of year)	Facilitated	8
All	Hazard Awareness (SLAM) <i>SLAM - Stop, Look, Analyze &amp; Manage</i> <i>SLAM for Life - MSHA Risk Assessment VIDEO</i>	Facilitated	8
All	Record Keeping <i>Compliance</i> <i>OSHA Regulations</i> <i>MSHA Regulations</i> <i>Safety Plans</i> <i>Check In</i> <i>Driver's Logs (DOT Files)</i> <i>Environmental (air, water, storm water)</i> <i>Quality Control</i>	Facilitated	8
All	Emergency Response <i>Emergency Plans</i> <i>MSHA/OSHA Breakdown</i> <i>First Responders Pre-Meetings (know the layout) *bring in resources</i> <i>Escort</i> <i>SERC Program</i>	Facilitated	8
Mining	Mine Tour(s) <i>New Miner Training Part 46</i> <i>MSHA PPE</i> <i>Mine Act</i> <i>Site Specific Safety Plan</i> <i>Lockout Tagout</i> <i>Confined Space</i> <i>Task Training</i>	Facilitated	20
Asphalt	OSHA (Occupational Safety and Health Administration) Training <i><u>OSHA 10 Hour Course</u></i>	Facilitated	20

## PHASE 2 – INDUSTRY FOUNDATIONS

COVERAGE		COURSE FORMAT	HRS
All	<b>Geology 101 (Ohio Basic) General Geology and Resource availability in Ohio</b> <i>Resources</i> <i>Ohio Geological Survey</i> <i>What materials are available in OH?</i> <i>Why are the materials available?</i> <i>What areas are materials available?</i> <i>Quality regulations of different materials</i>	Facilitated	24
Mining	<b>Production Basics - Mining (site visits)</b> <i>Crushers</i> <i>Screening</i> <i>Sizing</i> <i>Conveying</i> <i>Handling</i> <i>Site Visit</i> <i>Industry Videos (FlexCo, Eagle, Screen Machine, Thor)</i>	Facilitated	12
Asphalt	<b>Production Basics - Asphalt</b> <i>Production Plant Differences</i> <i>Differing Plant Processes</i> <i>Plant Visit</i> <i>Trucking Differences</i>	Facilitated	12
Concrete	<b>Production Basics - Concrete</b> <i>Site Visit</i> <i>Different Mix Design Criteria</i> <i>Trucking Differences</i>	Facilitated	12
All	<b>Environmental Regulations / Permits</b> <i>Permitting</i> <i>Record-Keeping</i> <i>Maintenance</i> <i>Neighbor Relations</i> <i>Zoning</i> <i>Regulatory Agencies in Each Industry</i> <i>Being a Good Neighbor</i> <i>OH EPA</i> <i>Ohio Geological Survey</i>	Facilitated	8
Mining	<b>Quality Control OAIMA/ODOT Level 1 (will receive certificate)</b> <i>Intro</i> <i>Basic Tests</i> <i>Governing Agencies</i>	Facilitated	8
Asphalt	<b>FPO/ODOT Level 1 (FPO dictates)</b> <i>Intro</i> <i>Inspection (qualifications, sampling and testing)</i> <i>Equipment</i> <i>Record-Keeping</i> <i>Materials-Asphalt</i> <i>Materials-Aggregate</i> <i>Mix Design - Properties and Characteristics</i> <i>Asphalt Mix Designs - Marshall Method</i> <i>Asphalt Mix Designs - Gyratory Method</i> <i>Plant Operations and (site visit)</i> <i>Transportation and Placement (site visit)</i>	Facilitated	8
Concrete	<b>OCC</b> <i>Intro</i> <i>Basic Ingredients -(Portland cement, SCM's, water, aggregates and admixtures)</i> <i>Chemistry (hydration)</i> <i>Properties of Fresh and Hardened Concrete</i> <i>Durability and Mix Design Process</i> <i>Batching, Mixing, Transporting, Handling of Fresh Concrete (plant visit)</i> <i>Plant Types, Safely working with Concrete</i> <i>Placement, Finishing and Curing</i> <i>Site Preparation, Placement Methods, Finishing, Curing, Jointing Sealing (site visit)</i> <i>Reinforcement and Load Transfer Devices</i> <i>Hot and Cold Weather Concreting</i> <i>Standardized Concrete Testing Procedures (ASTM)</i>	Facilitated	8
All	<b>Skills USA Career Essentials or Equivalent</b> <i>12th Grade Level</i>	On Own	40

## PHASE 3 – MECHANICAL/OPERATIONS/MATERIALS

COVERAGE	COURSE FORMAT	HRS
All Conveyor Basics - Field or Site Demos with Industry Representatives <i>Safety</i> <i>Identification</i> <i>Operations</i>	Field skills	8
All Basic Welding / Safety <i>Safety</i> <i>Identification</i> <i>Operations</i>	Field skills	4
All Cutting Torches <i>Safety</i> <i>Identification</i> <i>Operations</i>	Field skills	4
All Basic Electrical <i>Safety</i> <i>Identification</i> <i>Operations</i>	Field skills	4
All Electrical MCC PLC <i>Safety</i> <i>Identification</i> <i>Operations</i>	Field skills	4
All Screens and Screening Basics - Field or Site Demos <i>Safety</i> <i>Identification</i> <i>Operations</i>	Field skills	8
All Small Motor troubleshooting <i>Safety</i> <i>Identification</i> <i>Operations</i>	Field skills	4
All Hydraulics <i>Safety</i> <i>Identification</i> <i>Operations</i>	Field Skills	4
All Mobile Equipment <i>Safety</i> <i>Identification</i> <i>Operations</i>	Field skills	20
All Transportation - Field and Site Visits <i>Introduction to CDL Training (available to <u>eligible</u> students through many Adult Ed. programs)</i> <i>Safety</i> <i>Identification</i> <i>Operations</i>	Field skills	20

PHASE 3 HOURS 80  
TOTAL HOURS 332