



**CONSTRUCTION
ACADEMY**

THE
ULTIMATE
CONSTRUCTION
TRAINING

8 Week Job Readiness Program | 150 hours



Hybrid Syllabus

COURSE: Working With Others

LEARNING OUTCOMES	Total Duration
<ul style="list-style-type: none"> ◆ Understanding the fundamentals of construction traffic control ◆ Learning traffic control device standards and proper setup ◆ Completion of Flagger Certification Course 	19 hours

MODULES OF STUDY (7hrs)	
CATEGORY	MODULE NAME
Site Ops > Traffic Control	What is WZTC?
	Watch Out, Work Zone
	Traffic Devices: Overview
	Traffic Devices: Hold It Down
	Advance Warning Area
	Taper It: Highway
	Overnight Traffic Control
	Hold it Down
Communication	Flag It
	Portable Traffic Lights
	Crane Hand Signals
	Safe Mobile Phone Use
	Working With Inspectors
Flagger Training Course	Flagger Training (Parts 1-5)
Career Empowerment	Professionalism
	Dependability
	Positive Attitude
	Adaptability
	Self-Motivation
	Teachability
GPS	GPS Rover (Part 1-2)
Boundaries	Working Round the Railroad: Right of Way

IN PERSON TRAINING (12hrs)
Includes Certified Flagger Training: In person component for certification <i>Additional Training will be determined at time of instruction</i>

COURSE: Heavy Construction Site Ops

LEARNING OUTCOMES	Total Duration
<ul style="list-style-type: none"> ◆ Understand the fundamentals of earthwork excavation ◆ Understand the fundamentals for hauling equipment & materials ◆ Completion of NYS Dig Safely Course ◆ Understand the basic process of road and bridge construction 	19 hours

MODULES OF STUDY (14hrs)	
CATEGORY	MODULE NAME
Site Ops > Earthworks	Excavator Dig Safely Course (Parts 1-5)
	Excavator: Can You Dig It?
	Trench It
	Bulldozer: Rough Time
	Silt Fence
	The Slope (Squeeze It, Aerate It, Lay It Out)
	Get Over It! Stream Crossing
Site Ops > Drain It	Culvert (Parts 1-2)
	Water Detention Systems
	Lay It Under
	Detention
Site Ops > Clear It	Water Is Solid: Hydro-demolition
	Asphalt Crushing
	Chainsaw (Parts 1-3)
	Sweeper: System Check
	Dredge It (The Bank, The Stream)
Site Ops > Haul It	Lowboy: Chain it Down
	Lowboy: Inspect
	Lowboy: Disconnect
	Before You Tow
	Tie It Down
	Haul It: Fuel Truck
	Haul Roads
	Pre-Cast
	Articulating Dump Truck
	Crafco Trailer: Joint and Crack Sealing
	Build It > The Road
The Paver (Part 1)	

MODULES OF STUDY (14hrs)

CATEGORY	MODULE NAME
	The Paver (Part 2)
	The Widener
	Road Compaction (Part 1)
	Road Compaction (Part 2)
	Road Compaction (Part 3)
	Tack Distributor Demonstration
	Curb It!
	Site Manager Responsibility
Build It > The Bridge	Get Your Footing: Pile Drive It
	The Abutment: Form It
	The Abutment: Pour It
	Swinging Steel
	True or False: Falsework
	Rebar
	SIP Deck Pans (Parts 1-3)
	The Deck: Dry Run & Layout
	It's Pouring: Putting it In Place
	It's Pouring: Finishing It Out
	Little Pour

IN PERSON TRAINING (5hrs)

Competent Person Training For Trenching

Leeboy Tack Coat Distributor Training

Additional Training will be determined at time of instruction

COURSE: Construction Safety

LEARNING OUTCOMES

- ◆ Build awareness of common construction job hazards
- ◆ Learn how to keep yourself safe and healthy at work
- ◆ Gain understanding of the fundamental safety standards

Total Duration

19 hours

MODULES OF STUDY (9hrs)

CATEGORY	MODULE NAME
Personal Safety	Ergonomics and Back Injury Prevention
	Don't Zone Out
	PPE Overview
	Respirator Protection
	Hearing Conservation
	Portable Ladder Safety
	Lone Worker
Jobsite Hazards	Slips, Trips, & Falls
	Asbestos Awareness
	Silica Awareness
	Confined Spaces
	Outdoor Housekeeping
	Lead Safety
	Non-Ionizing Radiation
iBEAM Mental Wellness	Mental Wellness Series (Parts 1-5)
Site Leader	Giving a Toolbox Talk
	Managing Stress & Fatigue
	Safe Cell Phone Usage
	Safety Data Sheets
	Stop Work Authority
Compliance	COVID-19 Guidelines
	Sexual Harassment (Parts 1 & 2)
	Keeping Your CDL
	The Crane: License

IN PERSON TRAINING (10hrs)

Additional Training will be determined at time of instruction

COURSE: Tools of the Trade

LEARNING OUTCOMES	Total Duration
<ul style="list-style-type: none"> ◆ Gain comprehension of essential construction tools & equipment ◆ Completion of Aerial Lift Certification Course ◆ Completion of Forklift Certification Course 	18 hours

MODULES OF STUDY (7hrs)	
CATEGORY	MODULE NAME
Like A Pro Tool Series	Hammer Like A Pro
	Measure Like A Pro
	Saw Like A Pro (Parts 1-2)
	Grind Like A Pro
Forklift Training	Forklift Training Certification (Parts 1-4)
Working Above Ground	Aerial Work Platform Training: Part 1 Inspect
	Aerial Work Platform Training: Part 1 Operation
	Aerial Work Platform Training: Part 3 Safety
	Scissor Lift: Components and Operations
	Scaffold Installation and Safety
System Check	DEF
	Hydraulics 101
	Grease Points
	Lock Out Tag Out (LOTO)
	Cool It Down
	Track Time
	Sling & Rigging Hardware Inspection
Motor Grader	MotorGrader: Components
	Motor Grader: System Check
Crane	Crane: Conventional
Paver	Widener Components
	Paver: Components
	LeeBoy Tack Distributor (Part 1-4)

IN PERSON TRAINING (11hrs)
Certified Forklift Training: In person component for certification <i>Additional Training will be determined at time of instruction</i>

COURSE: Heavy Machinery

LEARNING OUTCOMES	Total Duration
<ul style="list-style-type: none"> ◆ Observe the fundamentals of heavy equipment operation ◆ Learn how common machine tools attach and function ◆ Learn the basics of skid steer / compact track loader operation 	18 hours

MODULES OF STUDY (8hrs)	
CATEGORY	MODULE NAME
Heavy Equipment Operation Overview	Excavator: Components
	Excavator: Daily Inspection
	Medium Hydraulic Excavator: Operation Overview
	Tri-Axle Dump Truck: Components
	Tri-Axle Dump Truck: Operation Overview
	Motor Grader: System Check
	Skidsteer: Operation Overview
	Skidsteer: Safety
	Hydraulic Crane Overview
	Vac Truck: Inspect, Components, & Operations
	Vac Truck: Wash It
	The Crane: Inspection
	IRON > Attachments
Hammer Time: System Check	
Sweep It: Loader Attachment	
Snow Blow It: Attach	
Snow Blow It: Operate	
Snow Blower Disconnect	
Tamp That: Plate Compactor	
Tamp That:: Attach	
Mini Mill: Attach	
Mini Mill: Maintenance	
Twist-A-Wrist: System Check & Bucket Attach	
Material & Tech Sheets	Toolbox Talk: Safety Data Sheets
	<i>Review a selection of Material Sheets</i>

IN PERSON TRAINING (10hrs)

WEEK 6

COURSE: OSHA 10

LEARNING OUTCOMES

- ◆ Recognize common workplace hazards and control measures
- ◆ Understand what OSHA safety standards are for construction
- ◆ Completion of the OSHA 10 hour certification course

Total Duration

19 hours

MODULES OF STUDY (10hrs)

CATEGORY	MODULE NAME
Introduction to OSHA	What is OSHA
	OSHA's Responsibility
	Standards and General Safety
	Know Your Rights
Focus Four Hazards	What is a Hazard?
	Struck By
	Risk Tolerance
	Fall Prevention (Part 1 & 2)
	Electrical Hazards (Part 1 & 2)
	Caught Between
Off The Ground	Scaffolding
	Ladders and Stairways (Part 1 and Part 2)
Tools: Hand and Power	Tool Safety: Power Tools
	Tool Safety: Hand Tools
PPE and Lifesaving Equipment	PPE: Personal Protective Equipment (Part 1, 2, 3)
Health Hazards in Construction	Pathogen Prevention
	Housekeeping & Distractions
	Heat & Cold Stress
	Chemical Hazards
	Biological Hazards
	Airborne Hazards
Fire Protection	Fire Protection
Materials Handling	Materials Handling (Part 1 and Part 2)
Excavation and Trenching	Excavation Safety (Parts 1-3)
Hazard Control Measures	Hazard Control Measures

IN PERSON TRAINING (9hrs)

Additional Training will be determined at time of instruction

COURSE: CAT Training

LEARNING OUTCOMES	Total Duration
-------------------	----------------

- ◆ Observe the fundamentals of heavy equipment operation
- ◆ Learn the functionality of common machine
- ◆ Learn the basics of Milton CAT machinery

10 hours

MODULES OF STUDY (9hrs)

CATEGORY	MODULE NAME
Next Gen HEX Mini	MINI HEX: Safety
	MINI HEX: Inspect
	MINI HEX: Assist Calibration
	MINI HEX: Operations Overview
	MINI HEX: Systems
	MINI HEX FEATURE FOCUS: Monitor
	MINI HEX FEATURE FOCUS: Stick Steer
D6XE	D6XE: Systems
	D6XE FEATURE FOCUS: Operators Monitor, Seat Controls, and Waster Handler Package
	D6XE: Operation Overview
	D6XE: Safety
	D6XE: Inspect
	D6XE: Operate
Articulating Dump Trucks	ARTICULATED TRUCK: Daily Inspection
	ARTICULATED TRUCK FEATURE FOCUS: Automated Hoist
	ARTICULATED TRUCK: Safety & Systems
	ARTICULATED TRUCK: Operations Overview
Tier 4 Final	TIER 4 FINAL: DEF Testing and Quality Concerns
	TIER 4 FINAL: DEF Maintenance Shutdown Process
Landfill Compactor	LANDFILL COMPACTOR: Equipment Safety
	LANDFILL COMPACTOR: Daily Inspection
	LANDFILL COMPACTOR: Systems and Service
	LANDFILL COMPACTOR: Startup and Shutdown
972M XE	972M XE: Systems
	972M XE: Operation Overview
	972M XE FEATURE FOCUS: Payload Scale, Ride Control, and

MODULES OF STUDY (9hrs)

CATEGORY	MODULE NAME
	Engine Idle Timer
	972M XE: Operation Detail
Next Gen HEX Medium	MHEX FEATURE FOCUS: Lift Assist
	MEDIUM HEX: Assist Tune Calibration
	MEDIUM HEX: Machine Display Settings
	MEDIUM HEX: Bucket Measure Up
	MEDIUM HEX: Monitor Setup
	MEDIUM HEX: Systems Technology
	MEDIUM HEX: Safety
	MEDIUM HEX: Daily Inspection
	MEDIUM HEX: Payload Calibration
	MHEX FEATURE FOCUS: Efficiency Features
	MEDIUM HEX: Operations Overview
	MHEX FEATURE FOCUS: E-Fence
	MHEX FEATURE FOCUS: Grade Assist

IN PERSON TRAINING (10hrs)

Heavy Machinery Demonstrations

Additional Training will be determined at time of instruction

COURSE: Milton CAT

LEARNING OUTCOMES	Total Duration
<ul style="list-style-type: none"> ◆ Observe the fundamentals of heavy equipment operation ◆ Learn the functionality of common machine ◆ Learn the basics of Milton CAT machinery 	19 hours

MODULES OF STUDY (10hrs)	
CATEGORY	MODULE NAME
906-908M	906-908M: FEATURE FOCUS: Creep Control
	906-908M: Operation Overview
	906-908M: Safety and Service
	906-908M: Daily Inspection
Next Gen HEX Large	LARGE HEX: Operation Overview
	LARGE HEX: Preventative Maintenance
	LARGE HEX: Safety
	LARGE HEX: Daily Inspection
299D3 CTL	299D3: Inspect
	299D3: Systems
	299D3: Operation Overview
	299D3 FEATURE FOCUS: Creep Control, Return to Dig, and Dual Self Level
	299D3: Safety
Wheel Loader Small	SMALL WHEEL LOADER: Daily Inspection
	SMALL WHEEL LOADER: Operation Overview
	SMALL WHEEL LOADER: Safety
	SMALL WHEEL LOADER: Preventive Maintenance
	SWL FEATURE FOCUS: Rim Pull
	SWL FEATURE FOCUS: Kick-Outs, Snubbing, Wrap-Outs, and Soft Detents
	SWL FEATURE FOCUS: Customization
	SWL FEATURE FOCUS: Hystat Powertrain Operation
	SWL FEATURE FOCUS: Creep Control, Engine Idle Shutdown, and DEF Alarm
	Wheel Loader Medium
MEDIUM WHEEL LOADER: Operation Overview	

MODULES OF STUDY (10hrs)

CATEGORY	MODULE NAME
	MEDIUM WHEEL LOADER: Daily Inspection
	MEDIUM WHEEL LOADER: Preventive Maintenance
	MWL FEATURE FOCUS: Payload Scales, Ride Control, and Engine Idle Timer
	MWL Feature Focus: Joystick Steering Control
	MWL FEATURE FOCUS: Ride Control
Wheel Loader Large	K Series Large Wheel Loader: Operator Controls
	K Series Large Wheel Loader: Basic Operator Tips
	K Series Large Wheel Loader: Preventive Maintenance
Off-Highway Truck	Off-Highway Truck: Fatal Safety Mistakes
	Off-Highway Truck: Daily Inspection
	Off-Highway Truck: Preventive Maintenance Walkaround

IN PERSON TRAINING (9hrs)

Heavy Machinery Demonstrations

Additional Training will be determined at time of instruction