



Haas Factory Outlet

A Division of Lance Company

Lifetime Programming Class Packages

Deluxe:

- Includes all of the following:
 - Lifetime Mill Programming Classes.....\$2995
 - Lifetime Lathe Programming Classes.....\$2995
 - WIPS In House Classes\$1095
 - **Total****\$7085**
 - **Package Price**..... **\$4995.00**

Standard:

- Includes one of the following:
 - Lifetime Mill Programming Classes
 - Lifetime Lathe Programming Classes
 - **Price** **\$2995.00**

One-Time:

- Includes:
 - Two seats to one class session, Mill or Lathe
 - **Price** **\$1995.00**

Description of Classes attached

3599 Marshall Lane, Bensalem, Pennsylvania 19020

Phone: 215.245.5500 - Fax: 215.245.6180 - www.lanceco.com - www.haascnc.com



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Lifetime Programming Class- Mill Level One Control and Operator Training

- Control Training
 - Screen layout
 - Modes: Edit, Memory, MDI, Zero Return, List Program
 - Startup and Zero Return
- Part Process:
 - Load program (Program will be given to class attendees)
 - Set Offsets
 - Work offsets. G54 X and Y coordinates
 - Tool Offsets
 - 3" shell mill
 - ½" Endmill
 - 3/8" 90deg chamfer mill
 - #7 drill
 - ¼-20 tap
 - P-cool setup
 - Diameter Settings for End Mills and Cutter Comp
- Run Program
 - "Single Block"
 - 5%/25% rapid utilization
 - "distance to go" position page for program verification
- Make part adjustment:
 - Thickness
 - Width/length using End Mill wear offset
 - Chamfer adjustment for edge of part
 - Spot drill for Tap
 - Rough part inspection using digital caliper and thread gage
- Rerun program
 - Search abilities on the control
 - Program restart to rerun certain tools

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Lifetime Programming Class- Mill Level Two Program Training

- Control Training
 - X, Y, Z Coordinate system
 - Program Format
 - Absolute and Incremental Programming (G90 and G91)
 - Rapid and Linear Moves (G00 and G01)
 - Circular Interpolation (G02 and G03)
 - Circular Pocket Milling (G12 and G13)
 - Cutter Compensation (G41 and G42)
 - Canned Cycle Programming Examples
 - Bolt Hole Patterns
 - Drilling and Tapping
- Part Process:
 - Create G Code Program
 - Verify Offsets, Tool and Part Offsets will already be set in machine
 - Diameter Settings for End Mills for Cutter Comp
- Run Program
 - Graphic Simulation
 - “Single Block”
 - 5%/25% rapid utilization
 - “distance to go” position page to prove in program
- Make part adjustment:
 - Thickness
 - Width/length using End Mill wear offset
 - Chamfer adjustment for edge of part
 - Spot drill for Tap
 - Rough part inspection using digital caliper and thread gage
- Rerun program
 - Search abilities on the control
 - Program restart to rerun certain tools

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Lifetime Programming Class- Mill Level Three Advanced Training

- Subroutine Programming
 - Internal
 - External

- Thread Milling
 - Single Point
 - Multi Thread

- High Speed Machining
 - Overview

- Control Features
 - Advanced Tool Management
 - Background Editor

- 3D Milling

- Macro Programming Introduction



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Lifetime Programming Class- Lathe Level One Training, Control and Operator Training

- Control Training
 - Screen layout
 - Modes: Edit, Memory, MDI, Zero Return, List Program
 - Startup and Zero Return
- Part Process:
 - Load program (Program will be given to class attendees)
 - Set Offsets
 - Install Tools
 - Set Tool Offsets
 - Tip Orientation
- Run Program
 - “Single Block”
 - 5%/25% rapid utilization
 - “distance to go” position page to prove in program
- Make part adjustment:
 - Diameter
 - Length
- Rerun program
 - Search abilities on the control
 - Program restart to rerun certain tools



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Lifetime Programming Class- Lathe Level Two Program Training

- Control Training
 - X, Z Coordinate system
 - Program Format
 - Incremental Programming
 - Rapid and Linear Moves (G00 and G01)
 - Circular Interpolation (G02 and G03)
 - Cutter Compensation (G41 and G42)
 - Canned Cycle Programming Examples
 - OD and ID Stock Removal Cycles
 - Threading
- Part Process:
 - Create G Code Program
 - Verify Offsets, Tool and Part Offsets will already be set in machine
 - Radius Tip Compensation
- Run Program
 - Graphic Simulation
 - “Single Block”
 - 5%/25% rapid utilization
 - “distance to go” position page to prove in program
- Make part adjustment:
 - Diameter
 - Length
- Rerun program
 - Search ability of control
 - Program restart to rerun certain tools



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WIPS In House Training

- Probe Set Up
 - Indication and Verification

- Calibration in Machine Tool
 - VQC Setup and Calibration

- Tool Setting
 - Type of Tool
 - Shell Mill,
 - End Mill
 - Drill
 - Tap
 - Offset Page of Control
 - Length and Diameter

- Work Piece Setup
 - Bore
 - Boss
 - Corner Piece
 - Adjusting Work Offset
 - Offset Page of Control

- Tool Breakage Detection

- Program Integration

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