

**TECHNICAL FUNDAMENTALS SERIES**

**Industry Maintenance**

***Technical skill classroom support training is offered in a wide range of topics and may be conducted at company campus to utilize the company’s equipment or on college’s campus***

**Introduction to Electricity**

* Focused on ability to construct & analyze DC & AC equipment using electrical test equipment
* Introduces fundamental concepts of electricity, test equipment operation, electronic majors & basic DC & AC principles (voltage, resistance, current, impedance, components & power)

**Motors & Controls**

* Focused on ability to properly select, connect and troubleshoot motors & control circuits
* Introduces fundamental concepts of motors & controls specifically covering ladder diagrams, pilot devices, contractors, motor starters & other control devices

**Introduction to Programmable Logic Controller (PLC)**

* Designed for those who have none to very little experience with computers
* Focused on ability to install PLC’s, create programs & troubleshoot programmable logic controller
* Introduces PLC & associated applications; specifically covering ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers & interfacing of controllers with equipment

**Hydraulics/Pneumatics**

* Focused on ability to understand the operation of a fluid power system, including design, application & troubleshooting of system
* Introduces basic components & functions of hydraulic & pneumatic systems including standard symbols, pumps, control valves, control assemblies, actuators, FRL & maintenance procedures

**Computer Numerical Control (CNC) Introduction**

* Focused on ability to explain operator safety, machine protection, data input, program preparation & program storage
* Introduces basic concepts & capabilities of computer numerical control machine tools including setup, operations & basic applications

**Computer Numerical Control (CNC) Turning**

* Focused on ability to manufacture simple parts using CNC turning centers
* Introduces programming setup & operation of CNC turning centers including programming formats, control functions, program editing, part production & inspection

**Computer Numerical Control (CNC) Milling**

* Focused on ability to manufacture simple parts using CNC machining centers
* Introduces manual programming setup & operation of CNC machining centers including programming format, control functions, program editing, part production & inspection

***For additional information, contact:***

***Louis Judge, Assistant Vice President, Corporate Education & Economic Development***

***336- 506-4207*** ***louis.judge@alamancecc.edu***

***Sheila Bissette, Administrative Assistant 336-506-4151*** ***sheila.bissette@alamancecc.edu***