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**On-Line Industrial Maintenance Technician Multi-Craft Training Program Summary**

**INTRODUCTION** - $60, 5 HRS

* REA5 – Study Skills
* MPR1 - Maintenance Principles
* TRB1 – Maintenance Troubleshooting Procedures

**BASIC MATH** - $80, 8 HRS

* MAT1 – Whole Numbers
* MAT2 – Fractions
* MAT3 – Decimals
* MAT4 – Algebra

**BASIC MECHANICS** - $150, 20 HRS

* TPC301 Basic Mechanics

**PRINT READING** - $80, 8 HRS

* PRT1 – Print Reading: Orthographic Projection
* PRT2 – Print Reading: Format & Dimension
* PRT3 – Print Reading: Types & Symbols
* PRT4 – Thread Specifications

**READING SCHEMATICS & SYMBOLS** - $150, 20 HRS

* TPC102 Reading Schematics & Symbols

**SAFETY & HEALTH** *-* $140, 14 HRS

* PPE7 - Personal Protective Equipment: Don’t Start Work Without It
* LOT9 - Lockout/Tagout: Lightening in A Bottle
* ELE5 - Electrical Safety: Beware the Bite
* ELE0 - ArcFlash: Live to Tell
* MAC0 - Machine Guarding: Safeguarding Your Future
* HAZ2 - HazCom: In Sync with GHS
* CHE5 - Chemical Handling: Basic Principles

**INDUSTRIAL SAFETY & HEALTH** - $150, 24 HRS

* TPC109 Industrial Safety & Health

**OSHA 10 HOUR GENERAL INDUSTRY** - $150, 10 HRS

* OSHA 10 HR General Industry

**LUBRICATION** - $80, 8 HRS

* MLU1 – Lube Oil: Types, Properties & Handling
* MLU2 – Lube Oil: Equipment & Procedures
* MLU3 – Lube Grease: Types, Application & Equip.
* INS9 – Lubrication System Inspection

**DRIVE COMPONENTS**- $200, 20 HRS

* MDR1-Industrial Drives: Belt Drives
* MDR2-Industrial Drives: Chain Drives
* CDP1-Industrial Drives: Complete Drive Package
* INS7- Operator Inspection: Belt Drive, Chain Drive & Gear Box Inspection
* EDS1 – Industrial Drives: Enclosed Drive System
* CBR1 – Clutches & Brakes: Types, Principles & Functions
* CBR2 – Clutches &Brakes Troubleshooting
* INS8 – Operator Insp.: Clutch & Brake Inspection
* GGS1 – Industrial Drives: Gears and Gear Systems
* SJC1 – Industrial Drives: Shaft and Coupling Devices

**BEARINGS** - $90, 6 HRS

* BRG1 – Industrial Bearings: Application & Technology
* BRG2 – Bearings: Maintenance & Installation
* BRG3 – Industrial Bearings: Troubleshooting

**PIPING SYSTEMS -** $150, 20 HRS

* TPC306 Piping Systems

**VALVES** - $240, 16 HRS

* FVB1 – Shutoff Valve Designs and Applications
* FVB2 – Selecting Shutoff Valves & Accessories
* FVB3 – Installing Shutoff Valves
* FVB4 – Maintaining Shutoff Valves
* CVA1 - Control Valves & Actuators: Basics & Functions
* CVA2 - Control Valves: Types and Designs
* CVA3 - Control Valves: Fundamentals & Selection
* CVA4 - Control Valves: Sizing & Installation

**PNEUMATICS** - $180, 18 HRS

* PNM1 – The Power of Compressed Air
* PNM2 – The Pneumatic Circuit
* PNM3 – Processing Air
* PNM4 – Using Compressed Air
* PNM5 – Pneumatic Control Valves
* PNM6 – Working Safely w/ Pneumatic Systems
* PNM7 – Pneumatic System Maintenance
* PNM8 – System Troubleshooting
* INS1 – Pneumatic System Inspection

**HYDRAULICS** -$260, 26 HRS

* IDH1 – Ind. Hydraulics: Principles & Application
* IDH2 – Ind. Hydraulics: Types & Concepts
* IDH3 – Hydraulics: Functions & Operating Principles
* IDH4 – Hydraulics: Maintenance & Troubleshooting
* HDL1 - Harnessing Hydraulic Power
* HDL2 – The Hydraulic Circuit
* HDL3 – Hydraulic Pumps & Actuators
* HDL4 – Hydraulic Control Valves
* HDL5 – Hydraulic Fluid
* HDL6 – Hydraulic System Safety and Maintenance
* HDL7 – Hydraulic Systems Troubleshooting
* HPS1 – Hydraulic Power Systems: Identification & Operation
* HPS2 – Hydraulic Power Systems Troubleshooting

**MEASUREMENT / INSTRUMENTATION** - $80, 8 HRS

* PME1 – Temperature Measurement
* PME3 – Pressure Measurement
* PME5 – Level Measurement: Measurement & Gages
* PME7 – Flow Measurement

**BASIC ELECTRICITY / ELECTRICAL MEASUREMENTS** - $160, 16 HRS

* ELS1 – Industrial Electricity Basic Principles
* ACDC1 – Current
* ACDC2 – Voltage
* ACDC3 – Resistance
* ACDC4 – Ohm’s Law
* ACDC5 – Magnetism
* ACDC6 – Electrical Measurements
* ACDC10 – AC Measurements

**ELECTRICAL MEASURING INSTRUMENTS** - $150, 20 HRS

* TPC204.1 – Electrical Measuring Instruments

**DC CIRCUITS / FUNDAMENTALS** - $80, 8 HRS

* ACDC7 – DC Circuits
* ADC2 – Ohm’s Law & DC Circuits
* ADC3 – Electronic Components and Magnetism
* ADC4 – Electronic Schematics and Circuit Analysis

**AC CIRCUITS / TRANSFORMERS** - $140, 14 HRS

* ELS2 – Industrial Electricity: Alternating Current
* ELS3 – Industrial Electricity: Conductors
* ACDC8 – Inductance & Capacitance
* ACDC11 – Capacitive Circuits
* ACDC12 – Inductive Circuits
* ACDC 13 – Transformers
* ACDC 14 – Tuned Circuits

**MOTOR DRIVES** - $140, 14 HRS

* MTD1 – Motor Drive Identification
* MTD2 – Open and Closed Loop Systems
* MTD3 – Variable Speed AC Drives
* MTD4 – Servo & Stepper Motors
* MTD5 – AC Motor Operation
* MTD6 – AC Drive Selection and Setup
* INS6 – Operator Inspection: Motor Drive System Inspection

**AC/DC EQUIPMENT & CONTROLS** - $140, 14 HRS

* ELS6 – Industrial Electricity: Generators and Motors
* ELS 7 – AC Motor Control and Current Measurement
* DCM1 – DC Motors: Basics and Parts of DC Motors
* DCM2 – DC Motors: Wiring Diagrams and Troubleshooting
* DCC1 – DC Motor Controllers – Controller Function and Operation
* DCC2 – DC Motor Controllers – Maintenance and Troubleshooting
* INS5 – Operator Inspection: Electrical Equipment Control System Inspection

**MOTOR CONTROLS -** $180, 18 HRS

* MTR1 – Basic Motor Controls & Relays
* MTR2 – Overload Protection Devices
* MTR3 – Motor Controls: Time Delay Relays
* MTR4 – Motor Controls: Schematics/Symbols
* MTR5 – Motor Control: Schematics and Wiring Diagrams
* MTR6 – Motor Controls: Starting Methods for Squirrel Cage Motors
* MTR7 – Wye-Delta, Synchronous, & Wound Rotor Controls
* MTR8 – Motor Controls: Installing/Troubleshooting
* TRB3 – Troubleshooting: Motors and Motor Controls

**BASIC ELECTRONICS** - $120, 12 HRS

* BEC1 – Basic Electronic Components: Types and Diagrams
* BEC2 – Basic Electronic Controls and Applications
* BEC3 – Basic Electronic Operation and Troubleshooting
* ECI1 – Electronic Circuits: Basic Principles
* ECI2 – Electronic Circuits: Characteristics and Operation
* ECI3 – Electronic Circuits: Logic Fundamentals, Types & Application

**PROGRAMMABLE LOGIC CONTROLLERS (PLCs)** - $160, 16 HRS

* PLC1 – Fundamentals
* PLC2 – Programming
* PLC3 – Inputs and Outputs
* PLC4 – Troubleshooting
* PLC5 – Communications & Advanced Programming
* RSX1 – Configuring Hardware and Software
* RSX2 – Programming and Editing
* RSX3 – Testing / Troubleshooting Functions

**Total Hours: 363 Total Cost: $3,510** Prices are subject to change with 30-day notice

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