

Industrial Maintenance Training - Course Overviews

*(Note: Completion time may vary, depending upon student's prior experience)
 IMT Lab Max Capacity is 20 Participants*

Course Title	Time	Contact
Introduction to Basic Algebra formulas which will be used in both Pneumatics and Hydraulics. (Optional, but recommended for students with little or no experience)	6 hours 6 Trainees	<i>Please contact</i> <u>Becky Epps</u> Project Manager 314.513.4271 for questions and pricing
Basic Hydraulics LAP 1 - Hydraulic Power Systems LAP 2 - Basic Hydraulic Circuits LAP 3 - Principles of Hydraulic Pressure and Flow LAP 4 - Hydraulic Speed Control LAP 5 - Pressure Control Circuits	40 hours 6 Trainees	
Intermediate Hydraulics LAP 1 - Hydraulic DCV Applications LAP 2 - Hydraulic Cylinder Applications LAP 3 - Hydraulic Relief Valve Operation LAP 4 - Hydraulic Check Valve Applications LAP 5 - Accumulator Applications	40 hours 6 Trainees	
Basic Pneumatics LAP 1 - Pneumatic Power Systems LAP 2 - Basic Pneumatic Circuits LAP 3 - Principles of Pneumatic Pressure and Flow LAP 4 - Pneumatic Speed Control Circuit	32 hrs 6 Trainees	
Intermediate Pneumatics LAP 1 - Pneumatic DCV Applications LAP 2 - Air Logic LAP 3 - Pneumatic Maintenance	16 hrs 6 Trainees	
Advanced Pneumatics LAP 1 - Moving Loads Pneumatically LAP 2 - Vacuum Systems LAP 3 - Air Compressors	16 hrs 6 Trainees	
Introduction to Basic Electrical Safety (optional but recommended for students with little or no experience)	8 hrs	
Electric Motor Controls – Section 1 LAP 1 - Introduction to Electric Motor Control LAP 2 - Manual Motor Control and Overload Protection	60 hrs 6 Trainees	

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LAP 3 - Control Transformers LAP 4 - Control Ladder Logic LAP 5 - Control Relays and Motor Starters LAP 6 - Introduction to Troubleshooting LAP 7 - Systems Troubleshooting LAP 8 - Reversing Motor Control LAP 9 - Automatic Input Devices 1 LAP 10 - Basic Timer Control: On-Delay and Off-Delay		
Electric Motor Controls – Section 2 LAP 11 – Braking Methods LAP 12 – Reduced Voltage Starting Circuits LAP 13 – Power Generation and Distribution LAP 14 – Electronic Sensors LAP 15 – Timers and Counters	40 hrs. 6 Trainees	
Mechanical Drives 1 LAP 1 - Introduction to Mechanical Drive Systems LAP 2 - Key Fasteners LAP 3 - Power Transmission Systems LAP 4 - Introduction to V-Belt Drives LAP 5 - Introduction to Chain Drives LAP 6 - Spur Gear Drives LAP 7 - Multiple Shaft Drives	60 hrs 4 Trainees	
Mechanical Drives 2 LAP 1 - Heavy Duty V-Belt Drives LAP 2 - V-Belt Selection and Maintenance LAP 3 - Synchronous Belt Drives LAP 4 - Lubrication Concepts LAP 5 - Precision Shaft Alignment LAP 6 - Couplings LAP 7 - Heavy Duty Chain Drives	60 hrs 4 Trainees	