

## Harmel Academy MST Program Courses, 2022

### **TRA 101 Computer Literacy**

AMT 1001 Orientation to Computer Systems  
AMT 1002: Operating Systems  
AMT 1003: Computer Applications  
AMT 1004: Internet/Intranet

### **MST 206 Controls & Instrumentation**

AMT 1061: Fundamentals  
AMT 1063: Calibration and Loop Tuning  
AMT 1064: Final Control Elements  
AMT 1062: Sensors & Photoeyes

### **MST 201 Fluid Power**

AMT 1012: Flow, Directional, Pressure Control  
AMT 1013: Pumps, Actuators, & Accumulators  
AMT 1014: Reservoirs, Fluids, & Filters  
AMT 1015: Hose, Piping, & Tubing  
AMT 1016: Electrohydraulics/Pneumatic  
AMT 1017: Systems and System Troubleshooting

### **ELE 107 Basic Electricity**

AMT 1071: Introduction to Basic Electricity  
AMT 1072: Instruments  
AMT 1073: Components & Circuits  
AMT 1074: Solid State Devices

### **MST 203 PLCs (Allen-Bradley)**

AMT 1031ab: Introduction to Allen-Bradley PLC's  
AMT 1032ab: Allen-Bradley Hardware & Software  
AMT 1033ab: Programming Allen-Bradley PLC's  
AMT 1034ab: Allen-Bradley PLC Communication

### **MST 108 Mechanical Drives**

AMT 1081: Basic Mechanical Power Transmission  
AMT 1082: Flexible Drives  
AMT 1083: Couplings and Alignment  
AMT 1084: Bearings, Shafts, & Seals  
AMT 1085: Brakes & Clutches  
AMT 1086: Gears & Cams

### **TRA 109 Safety**

AMT 1091: Basic OSHA Safety  
AMT 1092: Hoists & Cranes  
AMT 1093: Rigging Awareness & Fundamentals

### **MST 120 Machine Tool Operation**

AMT 1201: Introduction to Machining Operations  
AMT 1202: Measuring & Layout Tools  
AMT 1203: Hand & Power Tools  
AMT 1204: Saws  
AMT 1205: Drill Press  
AMT 1206: Turning  
AMT1207: Milling

### **MST 102 General PM**

AMT 1021: Basic PM  
AMT 1022: Advanced Technologies

### **WLD110 Basic Welding**

AMT1101 Introduction to Welding  
AMT1102 SMAW/Stick Welding  
AMT1103 GMAW Welding  
AMT1104 Oxy/Fuel Cutting and Joining

### **MST 104 Blueprint Reading/Schematics**

AMT 1041: Drafting Fundamentals  
AMT 1042: Orthographic Interpretation

### **MST 205 Robotics**

AMT1051 Introduction to Robotics  
AMT1052 Programming/Editing Robots  
AMT1053 Robot Maintenance and PM  
AMT1054 Troubleshooting Robot Error Codes  
AMT1055 Integration of PLC with Robotics

### **WLD 210 Intermediate Welding and Fabrication**

### **MTH 201 Math for Tradesmen**

### **CAD/CAM Introduction**