



**Utah System of Higher Education**  
The Gateway, Salt Lake City, UT 84101  
801-646-4784

## Automation Technology

Certificate of Completion (Catalog Year: 2025)

### Foundational Courses (21 Credits / 630 Clock-Hours)

|           |                                | Credits | Clock-Hours |
|-----------|--------------------------------|---------|-------------|
| TEAM 1010 | Essential Skills and Safety    | 3       | 90          |
| TEAM 1020 | Pneumatics                     | 2       | 60          |
| TEAM 1030 | Hydraulics                     | 2       | 60          |
| TEAM 1040 | Industrial Mechanics           | 3       | 90          |
| TEAM 1050 | Electrical Systems             | 2       | 60          |
| TEAM 1060 | Motor Controls                 | 3       | 90          |
| TEAM 1070 | Programmable Logic Controllers | 4       | 120         |
| TEAM 1080 | Applied System Diagnostics     | 2       | 60          |

### Supplemental Courses Varies by Institution

#### Bridgerland (9 Credits / 270 Clock-Hours)

|           |                                     | Credits | Clock-Hours |
|-----------|-------------------------------------|---------|-------------|
| TEAM 1005 | Computer Tools for Technology       | 1       | 30          |
| TEAM 1100 | Electric Motors and Drives          | 1       | 30          |
| TEAM 1110 | Introduction to Industrial Robotics | 2       | 60          |
| TEAM 1120 | 3D Modeling                         | 2       | 60          |
| TEAM 1125 | Solidworks CSWA Certification       | 1       | 30          |
| TEAM 1200 | HVAC Refrigeration                  | 3       | 90          |
| TEAM 1300 | Building Control Panels             | 3       | 90          |
| TEAM 1400 | GD&T Blueprint Reading              | 2       | 60          |
| TEAM 1500 | Instrumentation Process Control     | 3       | 90          |
| TEAM 1700 | Introduction to Studio 5000         | 1       | 30          |
| TEAM 1900 | Automated Technology Externship     | 4       | 180         |
| TEET 1040 | Electronics Assembly and Soldering  | 1       | 30          |
| TEET 1061 | DC Electronics I                    | 2       | 60          |
| TEET 1070 | AC Electronics                      | 4       | 120         |
| TEET 1100 | Microcontrollers I                  | 2       | 60          |
| TEET 1105 | Microcontrollers II                 | 2       | 60          |
| TEMT 1005 | Machining for Manufacturing Trades  | 3       | 90          |
| TEWT 1005 | Welding Overview                    | 3       | 90          |
| TEWT 1105 | Welding Qualifications              | 3       | 90          |

#### Davis (9 Credits / 270 Clock-Hours)

|           |   | Credits | Clock-Hours |
|-----------|---|---------|-------------|
| TEAM 1015 | Electronic Fundamentals for Industrial Automation | 4       | 120         |
| TEAM 1105 | Electric Motors and Drives                        | 3       | 90          |
| TEAM 1135 | FANUC IR Vision Systems                           | 1       | 30          |



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|---|---|----------------|--------------------|
| TEAM 1137   | Vision System Basics                              | 1              | 30                 |
| TEAM 1140   | Industrial Robotics                               | 3              | 90                 |
| TEAM 1170   | UAV Drone Technology                              | 3              | 90                 |
| TEAM 1200   | HVAC Refrigeration                                | 3              | 90                 |
| TEAM 1250   | Plumbing for Automation Technology                | 1              | 30                 |
| TEAM 1300   | Building Control Panels                           | 3              | 90                 |
| TEAM 1500   | Instrumentation Process Control                   | 3              | 90                 |
| TEAM 1550   | Process Technology Equipment and System Operators | 3              | 90                 |
| TEAM 1600   | Microcontroller and Microprocessor Programming    | 2              | 60                 |
| TEAM 1620   | Electronics Assembly and Soldering                | 2              | 60                 |
| TEAM 1710   | Industrial Networking                             | 3              | 90                 |
| TEAM 1720   | Controls Integration                              | 3              | 90                 |
| TEAM 1800   | Renewable Energy                                  | 2              | 60                 |
| TEAM 1810   | Lean Manufacturing (Six Sigma)                    | 1              | 30                 |
| TEAM 1820   | Semiconductor Devices                             | 4              | 120                |
| TEAM 1830   | Aerospace Technician                              | 2              | 60                 |
| TEAM 1910   | Automated Externship                              | 2              | 90                 |
| TEAM 2000   | Programmable Logic Controllers II                 | 3              | 90                 |
| TEAM 2020   | Human Machine Interface Programming               | 3              | 90                 |
| TEAM 2800   | Final Project                                     | 1              | 30                 |
| TEDR 1005   | Interpreting Engineering Drawings                 | 1              | 30                 |
| TEMT 1001   | Introduction to Machining                         | 2              | 60                 |
| TEWT 1008   | Welding for Manufacturing                         | 2              | 60                 |
| WWSK 1500   | Job Seeking Skills                                | 1              | 30                 |
| <b>Mountainland (9 Credits / 270 Clock-Hours)</b> |   | <b>Credits</b> | <b>Clock-Hours</b> |
| TEAM 1045   | Mechanical Drives and Laser Alignment             | 2              | 60                 |
| TEAM 1112   | Rotating Machines                                 | 2              | 60                 |
| TEAM 1115   | Robotics I  | 1              | 30                 |
| TEAM 1122   | SolidWorks  | 1              | 30                 |
| TEAM 1130   | FANUC Robots                                      | 1              | 30                 |
| TEAM 1240   | Welding Simulator                                 | 1              | 30                 |
| TEAM 1590   | Introduction to Statistical Process Control       | 1              | 30                 |
| TEAM 1615   | Conduit Bending                                   | 1              | 30                 |
| TEAM 1625   | Electronics Soldering                             | 1              | 30                 |
| TEAM 1630   | Sensors and Timers                                | 1              | 30                 |
| TEAM 1670   | Wiring Boards                                     | 1              | 30                 |
| TEAM 1730   | Basic VFD Operation                               | 1              | 30                 |
| TEAM 1815   | Lean and Six Sigma                                | 1              | 30                 |
| TEAM 1840   | Introduction to Semiconductor Manufacturing       | 2              | 60                 |



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|--|--|----------------|--------------------|
| TEAM 2030  | HMI and PLC Troubleshooting                    | 3              | 90                 |
| TEAM 2145  | Electro-Fluid Power                            | 1              | 30                 |
| TEAM 2300  | Introduction to RF Plasma                      | 1              | 30                 |
| <b>Ogden-Weber (9 Credits / 270 Clock-Hours)</b> |  | <b>Credits</b> | <b>Clock-Hours</b> |
| TEAM 1145  | Industrial Robotics                            | 3              | 90                 |
| TEAM 1650  | Advanced Electrical Systems                    | 3              | 90                 |
| TEAM 1660  | Advanced Motor Controls                        | 3              | 90                 |
| <b>Salt Lake (9 Credits / 270 Clock-Hours)</b>   |  | <b>Credits</b> | <b>Clock-Hours</b> |
| TEAM 1520  | Process Control Level/Flow                     | 4              | 120                |
| TEAM 1580  | Process Capstone Project                       | 2              | 60                 |
| TEAM 1610  | Electric Motor Control Systems                 | 4              | 120                |
| TEAM 1680  | Motor Capstone Project                         | 2              | 60                 |
| TEAM 2010  | Programmable Logic Controllers II              | 4              | 120                |
| TEAM 2025  | HMI Programming                                | 2              | 60                 |
| TEAM 2040  | PLC Troubleshooting                            | 2              | 60                 |
| TEAM 2080  | PLC Capstone Project                           | 1              | 30                 |
| TEAM 2200  | Troubleshooting Automated Systems              | 3              | 90                 |
| <b>Snow (9 Credits / 270 Clock-Hours)</b>        |  | <b>Credits</b> | <b>Clock-Hours</b> |
| TEAM 2045  | Programmable Logic Controllers Troubleshooting | 2              | 60                 |
| TEAM 2100  | Industrial Mechanics II                        | 2              | 60                 |
| TEAM 2110  | Laser Shaft Alignment                          | 2              | 60                 |
| TEAM 2120  | Vibration Analysis                             | 2              | 60                 |
| TEAM 2130  | Industrial Rigging                             | 2              | 60                 |
| TEAM 2140  | Industrial Hydraulics Troubleshooting          | 3              | 90                 |
| TEAM 2150  | Industrial Pumps                               | 3              | 90                 |
| <b>Southwest (9 Credits / 270 Clock-Hours)</b>   |  | <b>Credits</b> | <b>Clock-Hours</b> |
| TEAM 1510  | Process Control Components and Systems         | 2              | 60                 |
| TEAM 1640  | Electrical Systems II                          | 1              | 30                 |
| TEAM 2005  | Programmable Logic Controllers II              | 3              | 90                 |
| TEAM 2210  | Fabrication and Repair                         | 3              | 90                 |
| <b>Tooele (9 Credits / 270 Clock-Hours)</b>      |  | <b>Credits</b> | <b>Clock-Hours</b> |
| TEAM 1260  | Introduction to Manual Machining               | 5              | 150                |
| TEAM 1270  | Welding for Automation Technology              | 4              | 120                |