

Academic Programs

Multicraft Technology - Associate in Applied Science (061)

Graduates of the Multicraft Technology program are prepared to enter the work force as engineering technicians, field service engineers, plant maintenance technicians and application engineers or to move into supervisory positions. Graduates may continue their education at select colleges and universities and earn an advanced degree. Multicraft technicians combine knowledge of mechanical engineering technology with knowledge of electrical and electronic circuits to maintain, design, develop, test, and manufacture electronic and computer-controlled mechanical systems, such as robotic assembly machines. They also operate these machines in factories and other work sites. Maintenance technicians will work independently and with other plant personnel to perform preventative, predictive and routine maintenance tasks. They will troubleshoot issues, repair failures of production and facilities equipment, and ensure maximum equipment efficiency and effectiveness. Their work often overlaps that of both electrical and electronic engineering technicians and mechanical engineering technicians. The program content is constantly updated so that students stay current and competitive in today's market place. This degree allows the student to choose electives towards one student-selected specialization in Electrical, HVAC, Machining & CNC, or Welding. Graduates of the program may pursue certification in their field.

Work and Employment

Graduates of this program are prepared to work in industry, instrumentation, design, field service, and service laboratories. Graduates may supervise technicians in the assembly, installation, repair, maintenance, calibration, and modification of electro-mechanical systems and robotics.

Sauk has formed partnerships with local manufacturers to offer paid internships for students in the Multicraft program. Visit svcc.edu/meip for details.

Special Considerations

Workers usually have the following skills and aptitudes: the ability to do precise and detailed work, use good eye-hand coordination, notice and compare differences in objects, have mathematical and mechanical aptitudes, are analytic, curious and creative.

Program Contacts at Sauk Valley Community College

- Academic Advising, 815-835-6354
- Scott Gillihan, Welding Instructor, 815-835-6278
- Jeff Johnson, Multicraft Instructor, 815-835-6572
- Kurt Stuart, Associate Professor, Electrical and Industrial Technology, 815-835-6415

Total Hours Required - 60 Hours

Major Field Requirements - 43 Hours

- EMPHASIS ELECTIVES 9 SEMESTER HOUR(S) - SEE AREA EMPHASIS ELECTIVES BELOW FOR CHOICES. **CHOOSE ONE EMPHASIS.
- EET245 - Programmable Controllers (3 Semester Hours)
- EET261 - Adv Programmable Controllers (3 Semester Hours)
- ELT120 - Fund of Elec w/ Applied Math (3 Semester Hours)
- ELT259 - Industrial & Agric Wiring (3 Semester Hours)
- ELT262 - Electrical Controls (3 Semester Hours)
- IND108 - Introduction to CAD (2 Semester Hours)
- IND118 - Mechanical Systems (3 Semester Hours)
- IND218 - Fluid Power (3 Semester Hours)
- IND219 - Industrial Troubleshooting (3 Semester Hours)
- IND 250 INDUSTRIAL INTERNSHIP (1 SEMESTER HOUR)

- WLD101 - Industrial MIG Welding (2 Semester Hours)
- WLD102 - Shielded Metal Arc Welding (3 Semester Hours)
- OR** *WLD103 MIG Welding (3 Semester Hours)
- WLD106 - Welding Fundamentals (2 Semester Hours)

General Education Requirements - 16 Hours

- ENG101 - Composition I (3 Semester Hours)
- ENG111 - Bus/Technical Communication (3 Semester Hours)
- Humanities/Fine Arts 3 semester hour(s)
- Social/Behavioral Science 3 Semester hour(s)
- Physical Science (PHY 175 Required) 4 Semester hour(s)

SVCC Degree Requirement - 1 Hours

- FYE101 - First Year Experience (1 Semester Hours)

Electives for Electrical Emphasis-Select - 9 Hours

- ELT101 - Electrical Wiring (3 Semester Hours)
- ELT261 - National Electric Code (3 Semester Hours)
- ENE130 - Photovoltaics (3 Semester Hours)

Electives for HVAC Emphasis--Select - 9 Hours

- HRS114 - Sheet Metal Fabrication (3 Semester Hours)
- HRS120 - Basic Refrigeration (3 Semester Hours)
- HRS130 - Basic Heating (3 Semester Hours)

Electives for Machining & CNC Emphasis--Select - 9 Hours

- IND125 - Machining & Manufacturing Proc (3 Semester Hours)
- IND203 - Adv Machining & Manufac Proc (3 Semester Hours)
- IND207 - Computer Numerical Cont Prog I (3 Semester Hours)
- IND208 - Comp Numerical Control Prog II (3 Semester Hours)

Electives for Welding Emphasis--Select - 9 Hours

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- WLD102 - Shielded Metal Arc Welding (3 Semester Hours)
- OR**
- *WLD103
- WLD104 - TIG Welding (3 Semester Hours)
- WLD140 - Robotic Welding (3 Semester Hours)

Suggested Program (will vary according to emphasis; see an academic advisor for individualized plan.)

First Semester - 13 Hours

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- ELT120 - Fund of Elec w/ Applied Math (3 Semester Hours)
- FYE101 - First Year Experience (1 Semester Hours)

- IND108 - Introduction to CAD (2 Semester Hours)
- IND118 - Mechanical Systems (3 Semester Hours)
- WLD101 - Industrial MIG Welding (2 Semester Hours)
- WLD106 - Welding Fundamentals (2 Semester Hours)

Second Semester - 15 Hours

- Social/Behavioral Science 3 Semester hr(s)
- EET245 - Programmable Controllers (3 Semester Hours)
- ELT259 - Industrial & Agric Wiring (3 Semester Hours)
- ELT262 - Electrical Controls (3 Semester Hours)
- WLD102 - Shielded Metal Arc Welding (3 Semester Hours)

OR

WLD103 - MIG Welding (3 Semester Hours)

Third Semester - 15 Hours

- **Emphasis Electives 6 Semester hour(s)
- EET261 - Adv Programmable Controllers (3 Semester Hours)
- ENG101 - Composition I (3 Semester Hours)
- IND218 - Fluid Power (3 Semester Hours)

Fourth Semester - 17 Hours

- **Emphasis Electives 3 Semester hour(s)
- Humanities/Fine Arts 3 Semester hour(s)
- ENG111 - Bus/Technical Communication (3 Semester Hours)
- IND219 - Industrial Troubleshooting (3 Semester Hours)
- IND 250 Industrial Internship (1 credit hour)
- PHY175 - Introduction to Physics (4 Semester Hours)

Footnotes

- *A student selecting the welding emphasis will take both WLD 102 and 103 (one in the major field and the other in the welding emphasis area)
- **All nine elective credits must be taken from a single emphasis (Welding, HVAC, Machining/CNC, or Electrical).