



Welding & Machining Technology

Program Description

The Welding & Machining Technology program offers students the opportunity to develop a thorough understanding of metal forming technology through precision metal machining and arc welding. Students advance in life training through Applied math, technical communication, employability skills and teamwork. Technical skills are presented in precision measuring, blueprint reading, safety, torch cutting. Students become proficient in various welding processes such as MIG, TIG, gas and other arc welding processes. Other essential industrial and manufacturing skills taught are fabrication, manual lathe, CNC machining, surface grinding, manual milling, troubleshooting & problem solving. There is opportunity for work co-op in local private industry and exciting student competition through Skills USA and MITES, the Michigan Industrial and Technology Education Society. Competitions are fun, increase motivation and are a great opportunity to get ready for industry. This program also offers AWS, the American Welding Society, industry welder's certification testing. Certification distinguishes the student and makes them more marketable in the industry. Our program offers a great jump-start to further education with a future in many industrial fields as well as preparing students for entry level positions upon graduation.

Related Professions

- Welding Engineer
- Manufacturing Engineer
- CNC Programmer
- Fabricator
- Machinist
- MIG or TIG Welder

Lapeer County Education and Technology Center

690 N. Lake Pleasant Rd.
Attica, MI 48412
(810)664-1124
www.lapeerisd.org

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Articulations:

Davenport University (up to 30 credits)

Delta College:

Machine Technology (11 possible credits)
MS 113 or SKDR 181-Machine Processes
MS 114 or SKDR 182-Industrial Tech Mach
MS 130-Machine Tools I

Welding Technology (10 possible credits)

WELD 101-Exploratory Oxy-Fuel Welding
WELD 102-Exploratory Gas Tungsten
WELD 103-Intro to Plasma, Carbon Arc
WELD 104-Intro Shielded Metal Arc
WELD 106-Exploratory Gas Tungsten Weld.
WELD 108- Exploratory Gas Metal Arc Weld

Ferris State University:

WELD 113-4 credits

Mott Community College:

MECH 143-Welding Processes (3 credits)

Possible Certifications:

AWS-American Welding Society

OSHA Career Safe Certification

Program Success Indicators

Academic

- Able to read a ruler
- Read and write at age appropriate levels
- Basic math skills
- Add, subtract, multiply, and divide whole numbers, fractions, three place decimals
- Convert decimals to fractions
- Figure/calculate angles, area, volume

Interpersonal

- Dress safely/proper attitude/social skills
- Able to follow directions
- Able to follow safety rules
- Interest in program area
- Willingness to work until skill is mastered
- Able to work with hand and power tools
- Good attendance
- Not easily distracted
- Be able to accept constructive criticism

Program specific

- 20/20 vision (corrected)
- Doesn't mind getting dirty
- Ability to stay on task/self directed
- Enjoy physical/hands-on work

Instructor:

Cathleen McNally

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Paraprofessionals: Dean Russell

Kyle Strohm