



Bridges Career Academy

Advanced Manufacturing

Pequot Lakes High School

Understand the careers in the world of manufacturing. Experience working with a variety of metals, while designing, welding and machining parts. Learn skills in blue print reading, tool sharpening, thread cutting and shop safety. Gain entry-level employment or continue education.

Academic Courses

- Computer Controlled Metal Fabrication
- Geometry
- Trades Math

Career Experiences

- Learn from industry speakers
- Attend the Bridges Career Exploration Day or other regional career fairs
- Tour local businesses
- Work with real-life industry projects

Completion Standards

COMPLETE

- Computer Controlled Metal Fabrication**
- One Math**

GRADES **B** ↑

Earn a **certificate** and **green cord** at graduation



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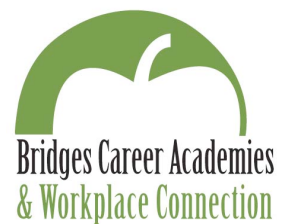
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Job Skills

In addition to having technical skills, employers expect workers in this industry to have these skills:

- Active listening skills
- Manage tools and equipment
- Use critical thinking skills
- Effectively communicate
- Time management



Advanced Manufacturing Career Academy

Pequot Lakes High School

The Manufacturing Academy provides students with an understanding of the vast number of careers in the world of manufacturing. Students will experience working with a variety of metals, while designing, welding and machining parts. Skills in blue print reading, tool sharpening, thread cutting and shop safety are essential elements of the courses. The academy is project-based and uses real-life activities while allowing students to work on both required and personal projects. When completing this academy, students will have skills to enter the work force or transfer credits to higher education.

ACADEMY COURSES

Computer Controlled Metal Fabrication — 1 High School Credit

If you are interested in a career in engineering or becoming a machinist and enjoy working with your hands and mind, in a clean controlled environment, this class is for you. A machinist is a person, who using tools (hand and powered) fabricates or makes modifications to a part that is made of plastic or metal. Machining has very little to do with welding or woodworking so there is no prerequisite to have those courses. PLHS has several machine tools, including a new computer controlled HASS milling machine.

Geometry — 1 High School Credit

This course includes basic triangle relationships and perimeter. A large emphasis will be put on the review of algebra topics. Art and design are real world applications that are applied during this class. Area, surface areas, volume, circles, similarity and basic trig functions are also covered.

Trades Math — .5 High School Credit

This course looks at the mathematics of measurement, geometry, algebra, coordinated geometry and trigonometry at these topics are applied in carpentry, machining, electrical and plumbing trades. We will also look at job scheduling and bidding of a job. This is a primer for those looking to go on to a vocational school and or the workforce.

COMPLETION STANDARD

Students wishing to receive a certification must complete the Computer Controlled Metal Fabrication and one math course while earning a minimum of a 'B' average in all courses.

CAREER EXPERIENCES

Students will explore and research careers with industry speakers, attend the Bridges Career Exploration Day event and other regional career fairs, tour the local businesses, and work with real life industry projects.

JOB SKILLS

In addition to having technical skills, employers expect their workers to have other skills such as:

- Listening skills
- Manage tools and equipment
- Use critical thinking skills
- Effectively communicate
- Time management

CAREER OPTIONS: www.careerwise.minnstate.edu/careers

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