



Bridges Career Academy

Environmental Science

Pequot Lakes High School

Apply a scientific understanding of the natural world to the protection of nature. Gain an understanding of the importance of balancing human needs with the needs of organisms in the natural environment and the needs of future generations who may be harmed by environmental abuses. Study the ecosystems of Central Minnesota. Learn survey techniques, review the regulations for hunting and fishing, and evaluate habitats.

Academic Courses

- Environmental Science
- Minnesota Wildlife
- Outdoor Engineering

Career Experiences

- Tour local businesses
- Listen to industry speakers
- Attend the Bridges Career Exploration Day or other regional career fairs

Completion Standards

COMPLETE

ALL courses

GRADES **B** 

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



Job Skills

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

- Written communication skills
- Ability to work with other professionals
- Ability to manage materials and supplies
- Problem solving skills
- Decision making skills

Explore types of careers

www.careerwise.minnstate.edu/careers

Review the local job outlook

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Find postsecondary programs

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Environmental Science Career Academy

Pequot Lakes High School

The Environmental Science Academy applies a scientific understanding of the natural world to the protection of nature. Students gain an understanding of the importance of balancing human needs with the needs of organisms in the natural environment and the needs of future generations who may be harmed by environmental abuses. Minnesota, specifically Central Minnesota, will serve as a template for studying a variety of ecosystems. Learning survey techniques, reviewing the regulations for hunting and fishing, and evaluating habitats are just a few of the highlights for this academy. The Academy is designed for students interested in environmental studies and a hands-on career.

ACADEMY COURSES

Environmental Science — .5 High School Credit

This course involves the study of the global environments through a sustainable use format looking towards the future. The course covers ecosystems, what they are, how they work and how they change. It also includes looking at renewable resources such as water, soil, food, animal diversity and habitat restoration. The course emphasizes conceptual understanding and problem solving. The laboratory component is designed to reinforce conceptual understanding with hands-on experiences and physical measurements and provides opportunities for scientific writing. The course uses data acquisition and simulations to help student visualize and understand abstract concepts. .

Minnesota Wildlife — .5 High School Credit

Students will develop an appreciation for wildlife by studying habitats, characteristics and behaviors of animals in Minnesota. Students will learn about hunting and fishing regulations and what role they play in today's population management of animals. Other topics to be covered include invasive species, endangered species, with life ethics and current threats to Minnesota wildlife.

Outdoor Engineering — .5 High School Credit

Students will create various pieces of outdoor equipment while investigating the engineering processes that go into them. They will build rattle reels, an ice fishing rod, an open water rod, different components on the 3D printer and a fishing lure. Along with building each object, students will develop a portfolio that includes engineering drawings, manufacturing processes, material lists, cost analysis and the design processes of each object.

COMPLETION STANDARD

Students wishing to receive a certification for this Academy must complete all courses while earning a 'B' (80%) or higher in each class.

CAREER EXPERIENCES

Highlighting this academy will be the labs students will experience as they try to solve real world problems. In addition, students will tour local businesses, listen to professionals in various businesses related to the environment and attend the Bridges Career Exploration Day event and other regional career fairs.

JOB SKILLS

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

- Written communication skills
- Ability to work with other professionals
- Ability to manage materials and supplies
- Problem solving skills
- Decision making skills

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