



Bridges Career Academy

Agriculture

Aitkin High School

Introduction to the vast number of careers in Agriculture today. Gain skills in agricultural animal and plant physiology, nutrition and management as well as forestry and land management. Agricultural and forestry equipment and technology skills are highlighted in the courses. Be prepared to go directly into employment in farming or forestry or continue to higher education.

Academic Courses

- Animal Science I
- Animal Science II
- Agriculture Explorations I
- Agriculture Explorations II
- Agricultural Business & Sustainability
- Agricultural Processing

Career Experiences

- Tour local businesses
- Maintain school garden
- Listen to industry speakers
- Conduct field experiments and labs
- Attend the Bridges Career Exploration Day or other regional career fairs

Completion Standards

COMPLETE

3 of 6 courses

MEMBER

FFA

GRADES

B↑

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



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Job Skills

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

- Active listening and speaking skills
- Presentation skills
- Reliability
- Problem solving
- Self-motivation



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The Agriculture Academy introduces students to the vast number of careers in Agriculture today. Student gain skills in agricultural animal and plant physiology, nutrition and management as well as forestry and land management. Agricultural and forestry equipment and technology skills are highlighted in the courses. Students are prepared to go directly into employment in farming or forestry or continue to higher education.

ACADEMY COURSES

Animal Science I: Animal Anatomy and Livestock Industry — 1 High School Credit

Students start this course learning the basic biology and anatomy of common livestock animals including the history of domestication, skeletal and digestive anatomy, animal health, nutrition, breeding and behavior. Students cover several livestock industries making case studies of Beef, Dairy, Horse, Swine, Sheep, Goat and Poultry. Various labs, guest speakers and live animal observations will illustrate the concepts. Students will gain an understanding of the economics and practices and practical skills of calculating and balancing feed ration and care for animals.

Animal Science II: Companion Animals and Pre-Vet Training— 1 High School Credit

Student will gain a deeper understanding of the management and economics of various animal industries and learn how to grade and process meat from several kinds of animals. Student will learn the basics of butchering and processing meat and other animal products. Students learn basic training skills for dogs as well as other pets. An additional focus will be on animal health and vet technician training. Students will assess the health of animals, diagnose an ailment and treat wounds.

Ag Explorations I: Intro to Farming, Soils & Plant Science — 1 HS Credit and 3 College Credits

Students are introduced to the science and business of farming. Students learn where food comes from and how it is grown. Learning about soil science through labs and experiments, such as lettuce and herbs through hydroponic growing systems is also part of the course. Horticultural techniques through practical growing labs both indoor and outdoor will also be taught. Students will grow lettuce and herbs for the FACS Dept and create floral arrangements for the school store.

Agriculture Explorations II: Horticulture and Floriculture — 1 High School and 3 College Credits

This course dives further into the science of growing and maintaining plant health and the business of growing crops. Students will learn how to plan, plant, grow, harvest, store and sell a variety of different crops. Learning the art and science of agronomy through practical growing labs, plant tissue analysis, field trips and guest speakers will highlight the course. Students will also learn about the latest agricultural technologies and apply their knowledge by tending and harvesting the crops from the school garden and elsewhere.

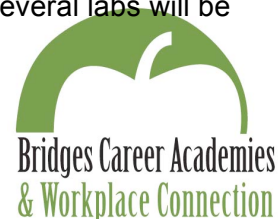
Agriculture Business and Sustainability — 1 High School Credit

Students will learn about the principles of sustainability and how to manage a farm enterprise. Students will focus on running a farm enterprise as a business and learn how to sustain the business. Creating a business plan through the simulation software program *Journey 2050* will highlight the course. Students will measure their business plans against the principles of sustainability and learn how to create a more sustainable business.

Agricultural Processing: Food Science 101— 1 High School Credit

This course explores how food goes from the field to the table. Student will begin with a breakfast meal and examine the processes the brought the food to the plates. The course will take field trips to local businesses that process food and listen to guest speakers about food processing. Students will create an iMovie and Podcast that reflects the processes used to create the foods they love. Several labs will be conducted throughout the course.

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COMPLETION STANDARD

Students wishing to receive a certification for this academy must complete 3 of the 6 courses, become a member of FFA and pass each course with a B or better.

CAREER EXPERIENCES

Students will attend the Bridges Career Exploration Day event and other regional career fairs. Students will tour businesses, listen to speakers, conduct field experiments and use a variety of Agricultural technologies. Maintaining the school garden, growing lettuce and herbs for the FACS department and creating floral arrangements will highlight the courses real-life experiences.

JOB SKILLS

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

- Active listening, speaking
- Presentation skills,
- Reliability, and problem-solving skills
- Self-motivation

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

JOB OUTLOOK: www.careerwise.minnstate.edu/jobs

POSTSECONDARY PROGRAMS: www.careerwise.minnstate.edu/education

