Bridges Career Academy

Emerging Agriculture

Brainerd High School

Understand the variety of careers in agricultural. Explore large and small animal sciences, conduct plant and soil research and learn the techniques of using agricultural equipment. Participate in hands-on projects and experiences.

Academic Courses

- Intro to Animal Science OR Intro to Plant Science
- Natural Resources Sciences
- Equine Science
- Horticulture Science
- Small Animal Science
- Greenhouse Production
- Animal Science I
- Animal Science II
- Research in Agriculture

Career Experiences

- Learn from industry speakers
- Attend the Bridges Career Exploration Day or other regional career fairs
- Tour the college greenhouse
- Attend UM's 'field day"
- Attend FFA state and national leadership events

Completion Standards

COMPLETE

☑ Intro to Animal Science OR Intro to Plant Science

☑ + 2 courses

GRADES B

ACT CAREER READINESS GOLD CERTIFICATE

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

MINNESOTA STATE CAREERwise Education

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Job Skills

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

- Conduct presentations
- Use critical thinking and critiquing skills
- Effectively communicate
- Time management
- Listening skills

Bridges Career Academies & Workplace Connection

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6/18/2020

www.BridgesConnection.org/Brainerd

Emerging Agriculture Career Academy

Brainerd High School

The Agriculture Career Academy allows students to acquire the basic understanding of the variety of careers in the agricultural world today. Students will explore large and small animal sciences, conduct plant and soil research and learn the techniques of using agricultural equipment. Hands-on projects and experiences are an integral part of this Academy. For those interested in working in food, animal, or plant related careers, this Academy is for them.

ACADEMY COURSES

Choose 1 of the following 2 options:

Introduction to Animal Science — 1 High School Credit
In this course, students will explore all things related to animals in the agricultural world. A variety of animals, ranging from rabbits to horses, from farm livestock to Minnesota wildlife, will be discussed. There will be hands on labs, live animals, in addition, the discussion of products we get from them. As an introductory course, this class is intended to give a broad exposure to the variety within the agriculture world involving animals. This is the recommended starting course for any other animal related Ag Science classes.

Introduction to Plant Science — 1 High School Credit
In this course, students will explore all things plant related in the agricultural world. The course will include the study of trees, soils, and water using hands-on based activities and lab experiments in the great outdoors. Students will have the opportunity to grow their own plants in the school greenhouse, study landscaping by creating their own gardens and landscape designs and create their own personal floral designs and corsages. Students will also cover agribusiness and careers in the agriculture industry. This is the recommended starting course for any other plant related Ag Science classes.

Choose 2 of the following 8 options:

Natural Resources Science 1 High School Credit
This course teaches students about native plants and wildlife - with emphasis on those from Minnesota. Students will learn to identify birds, insects, mammals, and fish; investigate many facets of forestry and wildlife habitat. Nature is used as the context to learn science principles and to understand our human connection with it. Students can look forward to outdoor lab activities, on and off-campus excursions, and experiences. Because of this, good attendance is critical for success in class.

Equine Science — 1 High School Credit
This course will focus on all aspects of horses. If you own horses or are, considering a career in the horse industry this course is for you. Areas of study will include breeds and types of horses, judging and selection of horses, health and diseases, feeding and nutrition, reproduction and foaling, and overall stable management.

Horticulture Science — 1 High School Credit
Students will be exposed to an array of topics in Horticulture. With a review of plant science, we will go deeper into other topics involving benefits and uses of plants of all kind: native, edible wild, and therapeutic houseplants. Students will study identification and propagation of ornamental trees, shrubs and fruits and sustainable practices for landscaping, gardening and food self- reliance. Much of the class is experiential in the greenhouse at South Campus, as well as the extended school grounds and neighborhood. Therefore, attendance and willingness to engage in hands-on activities is critical for success.

Small Animal Science — 1 High School Credit
Students will explore and practice skills in the area of small animals and veterinary science. This includes hands-on learning about care, breeds, and diseases of small animals such as dogs, cats, birds, fish, rabbits, and other pets. The course will involve guest speakers that will address current issues and careers in the small animal fields.

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ACADEMY COURSES, cont.

Choose 2 of the following 8 options:

Greenhouse Production — 1 High School Credit
In this course, students will learn propagation, identification, biology, and management of plants. This may include houseplants, bedding plants, home garden, fruits and vegetables. Concepts of floral or landscape design will be included. Careers in horticulture, greenhouse production and landscaping will be explored.

Animal Science I — 1 High School Credit
This course is open to students with either prerequisite course fulfilled since we will go in-depth to studying food production (farm) animals. This course will cover the history of animals and their domestication, animal handling, nutrition, breeds, and management techniques for raising poultry, sheep, goats, pigs, beef and dairy cattle. Students with limited livestock experience should take *Intro to Agriculture: Animals* first. Since it is a classroom study of large animals, there is minimal student contact with animals.

Animal Science II — 1 High School Credit
This course will continue with food production (farm) animals and go deeper into animal nutrition, body systems, reproduction, genetics, health, products from animals, selection, and marketing. Students will have an opportunity to focus on an animal of their choice as a special project. This course will use lab activities that provide more depth in the study of careers in animal science.

Research in Agriculture – 1 High School Credit
This course is an independent study course. Students will work on agricultural research topics as decided by the student and instructor.

COMPLETION STANDARD

Students wishing to receive a certification must complete either Introduction to Animal Science or Introduction to Plant Science, and 2 of the following 8 courses listed and earn at least 85% (B average) in each course. Students will also participate in the ACT National Career Readiness Certificate (NCRC) as part of this Academy Standard.

CAREER EXPERIENCES

Students will explore and research careers with industry speakers, attend Bridges Career Exploration Day, tour the college greenhouse, attend the University's 'Field Day' and attend FFA state and national leadership events.

JOB SKILLS

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

- Listening skills
- Conduct presentations
- Use critical thinking and critiquing skills
- Effectively communicate
- Time management

CAREER OPTIONS: www.careerwise.minnstate.edu/careers
JOB OUTLOOK: www.careerwise.minnstate.edu/jobs
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