Nebraska Agricultural Education & FFA Career Handbook





What is agricultural education?



Agricultural education is a school-based program that prepares you for careers in agriculture, food and natural resources.

The three components of agricultural education tell our story.



INSTRUCTION

The lead circle and base foundation in the agricultural education system is formal classroom and laboratory instruction in over 30 available courses.

Agriculture teachers work hard to make these classes experience based and relevant to careers in the agriculture industry.



SUPERVISED AGRICULTURAL EXPERIENCE

Agricultural education students are guided in developing a Supervised Agricultural Experience (SAE) to develop skills and gain knowledge of the agriculture industry.

Student SAEs include research projects, job shadowing experiences, jobs held or businesses started by students. All SAEs relate directly to agriculture.



FFA

FFA is the organization for students enrolled in agricultural education and seeks to benefit students by developing their potential for premier leadership, personal growth and career success through agricultural education.

FFA allows students to compete, participate, and receive recognition in agricultural career skills development and leadership programs.



What happens in the classroom?

Agricultural education instruction is taught by a certified agriculture teacher who holds a degree in agricultural education from a college or university. They are dedicated to professional development and staying up-to-date on the rapidly changing global agriculture industry.

You will learn about the Agriculture, Food and Natural Resources career pathways in your introductory course. You'll then continue on to intermediate and capstone level courses, building upon what you learned the previous year. The pathways provide a guide for you to follow what interests you most! Your agriculture teacher will also integrate FFA and Supervised Agricultural Experience concepts and principles into your classes.

COURSE OPTIONS AND PROGRAMS OF STUDY

Introduction to Agriculture, Food & Natural Resources

(introductory course taken by all agricultural education students)

• intermediate course + capstone course

ANIMAL SYSTEMS PATHWAY

- Animal Science
- + Large Animal Management
- + Small Animal Management
- + Veterinary Science
- + Biotechnology

POWER, STRUCTURE & TECHNICAL SYSTEMS PATHWAY

- Power, Structure & Technical Systems Fundamentals
- Welding
- + Power, Structural & Technology Systems
- + Precision Agriculture and Engineering
- + Metals & Fabrication

ENVIRONMENTAL & NATURAL RESOURCES SYSTEMS PATHWAY

- Environmental & Natural Resources
- + Environmental & Natural Resources Management
- + Wildlife

FOOD PRODUCTS & PROCESSING SYSTEMS PATHWAY

- Food Science & Safety
- FNS Food Production, Nutrition & Health
- + Food Products and Technology
- + FNS Food Science
- + FNS Nutrition Science

AGRIBUSINESS SYSTEMS PATHWAY

- Agribusiness
- + Agricultural Economics
- + Agricultural Management & Entrepreneurship
- + Agricultural Sales & Communications

PLANT SYSTEMS PATHWAY

- Plant Science
- + Crop Management/ Agronomy
- + Nursery & Landscape
- + Floriculture
- + Agriculture Biotechnology

DIVERSIFIED AGRICULTURE SYSTEMS PATHWAY

- Animal Science
- Plant Science
- Agribusiness
- Food Science and Safety
- Food Production, Nutrition and Health
- Environmental and Natural Resources
- Welding
- Power, Structural & Technical Foundations

Where can your program of study lead you?

AGRIBUSINESS SYSTEMS

Workers use technology to coordinate all activities that contribute to production, processing, marketing, distribution, financing and development of agricultural commodities.



Career Ideas

Agricultural Loan Officer • Agribusiness Manager • International Ag Marketing Specialist • Marketing Communications Manager • Financial Manager

ANIMAL SYSTEMS

Workers study genetics, nutrition, reproduction, growth and development of food and companion animals. They inspect and grade livestock food products, purchase livestock or work in sales or marketing.



Career Ideas

Geneticist • Nutritionist • Physiologist • Biomaterials Engineering • Farm and Ranch Managers

DIVERSIFIED AGRICULTURE SYSTEMS

Workers in diversified agriculture can study all programs of study to develop skills to work with plants, animals, food, environment, natural resources and power, structural and technical areas.



Career Ideas

Farmer • Rancher • Sales Representative • Farm and Ranch Managers • Entrepreneur • Machinery Operator



ENVIRONMENTAL AND NATURAL RESOURCES SYSTEMS

Workers are involved in pollution control, recycling, waste disposal and public health. They conduct hazardous waste management studies and analyze environmental research projects.

Career Ideas

Environmental Engineer • Hazardous Materials Handler • Health and Safety Sanitarian • Toxicologist • Conservation Officer • Water Quality Manager • Forestry Scientist • Fisheries Scientist • Wildlife Manager



FOOD PRODUCTS AND PROCESSING SYSTEMS

Workers discover food sources and develop ways to process, preserve, package or store food. They create new food products and inspect food processing to ensure food safety.

Career Ideas

Biochemist • Food Broker or Engineer • Food Science Technician • Quality Assurance Specialist



POWER, STRUCTURAL AND TECHNICAL SYSTEMS

Workers apply knowledge of engineering, power hydraulics, pneumatics, electronics, structures and controls to agriculture, and develop ways to improve the processing of agricultural products.

Career Ideas

Agricultural Engineer • Diesel Mechanic • Welder Farm Equipment Mechanic • Global Positioning Technician



PLANT SYSTEMS

Workers develop ways to improve the nutritional and aesthetic value of plants and quality of seeds.

Career Ideas

Agronomist • Entomologist • Plant Scientist • Golf Course Superintendent • Landscape Architect

Why are careers in agriculture so important?

Our population is growing like never before. There are 7 billion mouths to feed and our population is expected to grow to 9 billion people by 2050. Jobs and careers in all sectors of agriculture will be vital to keeping up with the global demand for agricultural and food production.

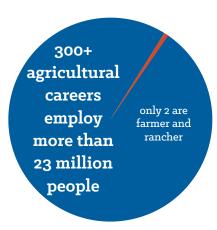
To feed everyone, we'll need to produce as much food in the next 50 years as we have produced the last 10,000 years.

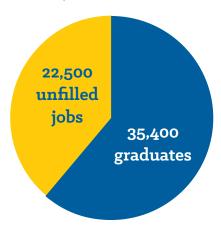
PAST 10,000 YEARS

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NEXT 50 YEARS

In the U.S., one part of this challenge is finding enough workers to fill more than 20 million agricultural jobs.





AMERICAN AGRICULTURE IS COMPOSED
OF MORE THAN 300 CAREERS RELATED TO
THE PRODUCTION OF FOOD.
OF THESE, ONLY TWO ARE "FARMER AND
RANCHER"

OUT OF 57,900 AVERAGE JOB OPENINGS
PER YEAR FOR AGRICULTURALLY-BASED
4-YEAR COLLEGE GRADUATES, ONLY 35,400
GRADUATES ARE EXPECTED, RESULTING
IN A 39% GAP IN THE LABOR SUPPLY.

What do former FFA members have to say?

Lisa Brass is the Vice President of Retail Banking and Risk Management at Trius Federal Credit Union in Kearney. She was a member of the Scottsbluff FFA chapter. Her SAE was working on her family farm to help raise corn, dry beans, alfalfa and cattle. One of her favorite memories from FFA was being a state officer. She said. "I served as the Nebraska State FFA Secretary in 1998. It was an opportunity to enhance my public speaking and presentation skills. I met amazing FFA members from all over Nebraska and developed lifelong friendships with my fellow state officers."

Her advice to FFA members is to take time to develop your interpersonal skills and be involved in the community. She said, "As an employer, we want to hire individuals who can work well with others and have good communication skills."





LEE NELSON

Lee Nelson was a member of the Logan View FFA chapter. His SAE was purebred montadale sheep. His favorite memories from FFA were FFA State Convention, his FFA advisors and COLT conference. He said he enjoyed convention because of the contests, sessions, the show of support for Nebraska FFA and the overall excitement.

When asked what skill he uses from FFA today he said, "An overall appreciation of agriculture and the impact it has on the state of Nebraska and the world. You are fortunate when you get to work in an industry that you both enjoy and believe in FFA instilled a belief in me that agriculture truly is the backbone of life and those involved in it are real, hardworking folks. I'm in this industry because of my experiences in the FFA organization and I've had a very rewarding and fulfilling career to this point." Lee now works for Nutrien Ag Solutions as a Region Seed Manager.

What is a Supervised Agricultural Experience?



A Supervised Agricultural Experience (SAE) is an experiencebased program in which you gain "real world" experiences and develop skills in agriculturally related career areas that interests you.

There are two key steps to getting started:

STEP 1. visit with your agriculture teacher about you career interests.

STEP 2. create a program that develops your skills in your areas of interest.

SAEs are categorized as either a Foundational SAE or an Immersion SAE.

Foundational SAEs include instruction for all students each year related to:

Career exploration and planning

Personal Financial planning and management

Workplace Safety

Employability skills for college and career readiness

Agricultural Literacy

Immersion SAEs are identified in one of the following five types:

Entrepreneurship/Ownership: In this SAE, students create, own and operate a business which provides good and/or services to the marketplace. Their business can range from starting a mowing service to developing mobile apps. They make the operational and risk management decisions on how goods and/or services are provided.

Placement/Internships: In a Placement SAE, students work in an agriculture-related business, but do not own the business. An Internship SAE provides a more targeted experience that focuses on meeting specific training needs based on an educational training plan.

Research (Experimental, Analytical, Invention): Students follow the scientific process and accepted best practices for conducting research. They complete a research plan and conduct peer reviews, providing a summary presentation on their research. Research can be experimental in nature, analyzing why or how something occurs, or applying engineering design process to create a new product or service.

School Based Enterprises: This is an Entrepreneurship SAE that involves a group of students working cooperatively to create a business. The business is student-led and provides goods or services operated from the school campus utilizing facilities, equipment and other resources provided by the agriculture education program.

Service Learning: Service Learning is where a student or a team of students work toward meeting a need in the school or community. They design and carry out a project to provide a benefit to an organization, group or individuals within the community.



THE MISSION:

The National FFA Organization is dedicated to making a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education.

THE MOTTO:

Learning to Do, Doing to Learn, Earning to Live, Living to Serve.

THE COLORS:

In 1929, at the second National FFA Convention, the delegates adopted National Blue and Corn Gold as the official colors of the FFA. This became the colors of one of the most recognizable symbols of FFA, the blue corduroy jacket.



THE EMBLEM:

The FFA Emblem was designed and adopted in 1933 as part of the official jacket. The emblem itself carries much meaning to those involved in agricultural education.



FFA was started in 1928 when 33 ag students gathered in Kansas City to solidify support for agricultural education. Nebraska was the sixth state to charter in 1928.

FFA has grown to over 700,000 members in 8,612 chapters in all 50 states, Puerto Rico, U.S. Virgin Islands and the District of Columbia.

Statewide FFA Leadership Opportunities

FFA offers exciting opportunities to gain leadership and career skills while making new friends from around the state.
Leadership conferences combined with competitive activities take place throughout the year.



PATHWAYS TO CAREERS CONFERENCE

Each fall, Nebraska FFA members are invited to attend a high-energy conference with industry representatives. Students get the opportunity to engage with industry professionals from the seven agriculture, food and natural resource career pathways. Industry professionals lead hands-on, interactive workshops and develop relationships with future employees.

CHAPTER OFFICER LEADERSHIP TRAINING (COLT)

COLT is for FFA chapter officers to learn how to effectively serve their chapters. Conferences are held throughout May. The focus is on individual leadership skills as well as how to work as a chapter officer team. Officers engage in experience-based leadership activities, share and learn great ideas and create an action plan for their year of service.

FALL LEADERSHIP CONFERENCES

Each fall, leadership conferences such as EDGE are held in various regions of the state to provide students at all levels the chance to improve their leadership skills. Participants get to know other students and begin understanding what is possible in agricultural education and FFA

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This conference prepares leaders to be advocated of the chapter for current and potential members, as well as community stakeholders. The two-day conference is held in Kearney in mid-February.

FFA State Convention

APRIL 7-9, 2021

Nebraska FFA State Convention is an event for Nebraska's FFA members, advisors, agriculture teachers, parents, sponsors, donors and guests to attend annually in Lincoln.

The convention is held at Pinnacle Bank Arena, hotels in Lincoln's Haymarket and University of Nebraska.

FFA members during state convention have the opportunity to attend leadership workshops, participate in competitive events, listen to motivational speakers and state officer retiring addresses, watch and receive awards, attend business tours, and attend the expo and career fair.



FFA Competitive Events, Degrees and Awards

Can you think of another program where students can develop essential leadership, life and career skills, earn money and be recognized on local, district, state and national levels for these efforts? FFA has it!

FFA DEGREE PROGRAM

FFA members can earn degrees as they progress through the phases of their leadership, academic and career skills development. Each degree advancement has specific requirements that must be achieved.

There are five degree levels:

- 1. Discovery Degree
- 2. Greenhand Degree
- 3. Chapter FFA Degree
- 4. State FFA Degree
- 5. American FFA Degree



PROFICIENCY AWARDS

Agricultural proficiency awards honor FFA members who, through their SAEs, have developed specialized skills that they can apply toward their future careers. Students can compete for awards in areas covering everything from Agricultural Communications to Wildlife Management. For more information on these degrees, a full listing of Proficiency Award categories and Career Development Events, visit neaged.org.

CAREER DEVELOPMENT EVENTS

Nebraska Career Development Events (CDEs) help students develop abilities to think critically, communicate clearly and develop skills for a competitive job market. Some of the CDEs state-winning individuals and teams will move onto National Convention.



FFA Competitive Events, Degrees and Awards

LEADERSHIP DEVELOPMENT EVENTS

Nebraska Leadership Development Events (LDEs) provide FFA members with experience in the practice of influencing thers through speaking and parliamentary procedure competitions. For some LDEs, the state-winning individual or team will represent Nebraska at National FFA Convention.



STATE AND AMERICAN STAR PROGRAM

The State and American Star awards represent the best of the best among thousands of State and American FFA Degree recipients. Finalists for the award have mastered skills in production, finance, management and/or research. State and American Star award areas include: Star in Production, Star in Agribusiness, Star in Agricultural Placement and Star in Agriscience.



FFA Program of Activities

All well-run organizations have a plan for activities. FFA chapters develop a Program of Activities (POA) as a way to set goals for the chapter and outline the steps needed to meet those goals.

A well-planned POA will ensure chapter activities meet the needs of its members, provide direction from year to year, lead to a workable budget, provide experience in planning and serve as a reference point throughout the year. A POA also helps chapters communicate their goals with administrators, parents, advisory committees and their community.

By engaging in the development and delivery of a quality POA, students develop leadership and planning skills which are essential in all careers.

Chapters can earn national recognition for their POA. Each year, there are 10 chapters identified as a National FFA Premier Chapter in each of the three focus areas.

In addition, another 10 high school chapters will also be chosen as National FFA Models of Excellence award winners. These chapters exhibit excellence in all three categories of the Program of Activities. This award program recognizes chapters who successfully complete an annual Program of Activities designed to encourage members to work as part of a team, to serve others and to grow as individuals.

THE CHAPTER POA HAS THREE FOCUS AREAS:

Building Communities

Strengthening Agriculture

Growing Leaders







CHAPTER SPOTLIGHT: LAKEVIEW FFA

Providing a safe environment in her chapter's greenhouse for both students and community members was one of the first goals Catherine Chmelka, advisor of the Lakeview FFA chapter, wanted to accomplish after she started teaching at Lakeview Public Schools. However, When she first came to Lakeview, Chmelka realized the greenhouse needed safety updates.

The floor was sand that had been tarped over. It didn't take long for the surface to become uneven and hazardous to walk on. Chmelka wanted to add cement flooring to the greenhouse to make it safer for students during class and for community members who would come in to shop during plant sales.

After hearing about the Nebraska FFA Foundation Local Chapter Grant Program, Chmelka decided to apply to help with the cost of the updates she needed to make. Since then, Lakeview FFA has been awarded a grant from the Nebraska FFA Foundation to make the needed improvements.

The Lakeview FFA greenhouse is now a safe environment that fosters a handson learning environment for students and FFA members and includes projects surrounding plant science, aquaponics, ag sales and more!



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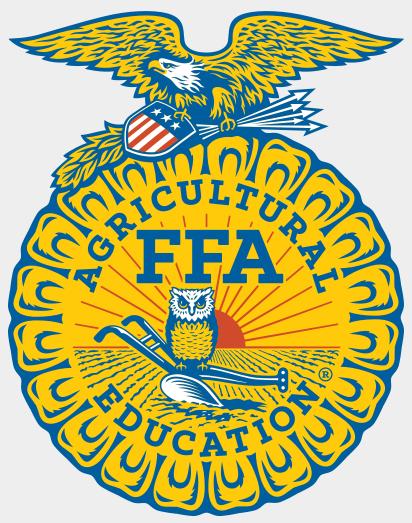
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