AGRICULTURAL EDUCATION DEPARTMENTAL CURRICULUM PROFILE

PROGRAM DESCRIPTION

Courses in this department are offered to students in grades 7-12. The Junior High Curriculum is a quarter long block class focusing on agricultural exploration, literacy, and awareness. The high school curriculum presents a diverse of agricultural topics serving our students and the agricultural opportunities within our community. The foundational course is a year long study of agriscience with the rest of the curriculum rooted in semester long classes for deeper understanding of specific topics. A description of each course can be found in the curriculum guide.

PHILOSOPHY

The Agricultural Education Program at Lyons-Decatur Northeast is committed to the value and understanding of the vital role agriculture and natural resources in personal and global well being.

Our mission in agricultural education, both locally and statewide is to prepare students for successful careers and a lifetime of informed choices in the global environmental and natural resources field.

As a portion of Career Education, the agricultural education department strives to develop career-oriented, life-long education that prepares all individuals for meaningful roles in careers, family, and community.

We strive to make a positive difference in the lives of all students, creating learning experiences in which all students can succeed. Student learning is focused on developing knowledge, skills, abilities, and attitudes needed for employment, lifetime education, and success as a productive member of society.

OBJECTIVES IN THE AGRICULTURAL EDUCATION PROGRAM

1. Provide opportunities within an applied science to use practical and real-world application of concepts and basic sciences.
2. Provide opportunities for students to learn and make wise, informed choices as problems and opportunities present not only in school but also as society members.
3. To provide education background for post education and career skills for those directly entering the work force.
4. To learn and apply the save use of equipment, tools, materials and processes.
5. To apply and enhance classroom and laboratory knowledge and skills through individual Supervised Agricultural Experiences.
6. Promote an understanding and application of advancing technology.
7. Provide career information and exploration related to their interests and strengths within the agriculture field.
8. To foster personal growth, leadership development, and career skills through the career education student organization FFA.
9. To provide education, learning, and understanding of the value and need for diversity within our society.
10. Provide opportunities for students and community to mingle and learn from and about each group for the betterment of education and the community.
11. To assure that the instructor stays current with emerging issues, topics, technology, and developments within the agricultural industry.

COURSE SEQUENCE

Agricultural Education Course Sequence

	Fall Semester	Spring Semester	Grade Level	
7-8	Agricultural Enrichment (one quarter)	Agricultural Enrichment (one quarter)	7-8	
9	Introduction to Agriculture, Food and Natural Resources (Agriscience)		9 to 12	Four Year Plan
10	Plant Science	Animal Biology	10 to 12	
11	Natural Resources	Companion Animals (Spring Odd Years)	10 to 12	
		Food Science (Spring Even Years)	10 to 12	
12	Agribusiness		11 to 12	
	Welding	Advanced Welding	10 to 12	
	Leadership	Landscaping	10 to 12	

Agricultural Education Course Descriptions

Introduction to Agriculture, Food and Natural Resources
Length: Full Year
Grade Level: 9, 10, 11, 12
This foundation course explores the basic areas of agriculture, agriscience, natural resources, food science, animal science, plant science, leadership, agribusiness, and the FFA. The FFA is an intracurricular organization for students enrolled in Agricultural Education. This course includes units in the FFA, speaking, SAE, record keeping, agriscience and interpersonal skills.

Plant Science
Length: Fall Semester
Grade Level: 10, 11, 12
Agronomy concepts and practices provide the major area of study in this course. Soil and plant sciences will be explored. The production, conservation, management, and record keeping associated with these practices will be introduced and practiced. The course includes soils, land planning, water quality, hydrological cycle, and irrigation.

Animal Biology
Length: Spring Semester
Grade Level: 10, 11, 12
Animal science concepts and practices provide the major area of study in this course. This course will begin a look at meat evaluation, identification, and impact of the industry as well as basic livestock selection. Animal science concepts and principles including breeding, feeding, health, marketing, management practices of major species of livestock will be introduced. The reproductive and digestive systems of livestock will be explored. Livestock health will also be discussed. A basic study of genetic terms, predictions, and heredity will explore this area.

Natural Resources
Length: Fall Semester
Grade Level: 10, 11, 12
This course will deal with natural resources and how we manage and conserve them. Natural resources including soil, water, fish, wildlife, waste, pollution, and other environmental resources will be studied.
This course will help students understand and make responsible decisions regarding conservation of our natural resources.

Companion Animals
Length: Spring Semester (Odd Years)
Grade Level: 10, 11, 12
This course is designed for students interested in companion animals from breed identification to anatomy to disease prevention general health care and exposes students to career opportunities in the companion animal care. The domestication of animals for companionship and pleasure will be the foundation of the course.

Food Science
Length: Spring Semester (Even Years)
Grade Level: 10, 11, 12
This course is designed for students interested in processing, handling, preparing, developing, and analyzing food products and expose students to career opportunities in the Food Science Industry. The safety, marketing, rules, and regulations associated with the food industry will also be discussed.

Agribusiness
Length: Full Year
Grade Level: 11 or 12
This course primarily studies agricultural business and management. A complete study of management terms and practices, financial management, marketing, record keeping, analysis, taxes, depreciation, insurance, and agricultural law encompasses this course. Employment skills and tools will be utilized.

Landscaping
Length: Semester
Grade Level: 10, 11, 12
This course is designed as an introduction into the landscaping industry. Students will learn types of plants as well as their uses, growth, needs and obstacles. Common tools and equipment in the industry will be explored. Students will develop landscaping plans and their costs.

Leadership
Length: Semester
Grade Level: 10, 11, 12
An elective course into the basic areas of leadership. Students will learn aspects of the inner self, public self and continual renewal. Students will develop skills and learn experience in a variety of concepts related to leadership in youth as well as life long development. An emphasis on servant leadership will stream throughout the course. During this course, students will complete a mentoring program.

Welding
Length: Semester
Grade Level: 10, 11, 12
This course includes arc, wire, and oxy-acetylene welding units as well as use of the cutting torch and metal preparation. The principles of metal fusion, identification of electrodes, identification of gasses, and melting points of metal will all be presented. Proper equipment set up, care, and maintenance will be demonstrated. Practical experience will be gained through laboratory work. Students will be required to complete a number of weld samples as assigned by the instructor.

Advanced Welding
Length: Semester
Grade Level: 10, 11, 12
Prerequisite: Must have completed the Welding Course with a minimum of a "C"
Advanced Welding is a more in-depth study into the field of Welding. Welding applications will include Advanced Stick Electrode Arc Welding, Advanced Oxy-Acetylene welding, MIG Welding, Basic Cutting Techniques and Metal Fabrication. A review of basic welding in flat position, basic bronze welding techniques, and basic metallurgy will be discussed. Proper equipment set up, care, and maintenance will be demonstrated. In addition the course will cover advanced metallurgy, and out of position welding. The student should have good basic skills prior to taking the course. Project construction encompasses a majority of this course.

Agricultural Literacy
Length: One Semester
Grade Level: 7 and 8
This exploratory course will provide experiences in many areas of agriculture. The role and economic impact of Nebraska agriculture, economic role of agriculture, career study, animal science, plant sciences, horticulture and nursery, crop science, leadership development, and current events in agriculture.