



Course Outcome Summary

Course Information: Introduction to Agriculture

Description: Ready to get down to the nitty gritty! This beginner level course explores the inner workings of the Agriculture Industry. Students develop an awareness and understanding of plants, animals, wildlife, forestry, food processing, soils, biotechnology and leadership all in this class. Students are engaged in hands on learning labs where they work with plants, process meat and dairy products, analyze soil samples, create models, and so much more. This intro class also exposes students to agriculture careers and the opportunities of FFA. Students will develop communication, networking and leadership skills to carry on in their future. The goal of this class is to share the amazing world of agriculture in a fun and fast paced, hands on classroom. This course is recommended for freshmen or new students to the agriculture classroom. This course is a Recommended to all agricultural courses.

Instruction Level: Freshmen and up

Total Credits: 1

Prerequisites: None

Textbooks: None

Course Standards:

Common Career and Technical Core:

- Communicate and collaborate with others to accomplish tasks and develop solutions to problems and opportunities.
- Identify and apply employability skills.
- Assess benefits and challenges of working in diverse settings and on diverse teams.
- Apply leadership skills in real-world, family, community and business and industry applications.

Content Standards:

- Prepare and maintain all files needed to accomplish effective record keeping.
- Determine the influence of environmental factors on plant growth.
- Prepare growing medium for use in plant systems.
- Develop & implement a plant management plan for crop production.
- Harvest, handle, and store crops.
- Investigate various means to grow plants.

- Apply knowledge of natural resource components to the management of natural resource systems.
- Compare and contrast trees and other woody plants.
- Determine the nutrient content of soil using appropriate laboratory procedures and prescribe fertilization based on results.
- Apply soil science and microbiology principle to environmental service systems.
- Classify animals according to the taxonomical classification system.
- Appraise and evaluate the economic value of animals for various applications in the agriculture industry.
- Assess an animal to determine if it has reached its optimal performance level based on anatomical and physiological characteristics.
- Evaluate and select animals to maximize performance based on anatomical and physiological characteristics that affect health, growth and reproduction.
- Develop efficient procedures to produce consistently high quality animals, well suited for their intended purposes.
- Describe how selection and geographical regions impact the economic decisions of our livestock business.
- Demonstrate safe animal handling and management techniques.
- Identify and use hand and power tools and equipment for service, construction, and fabrication.
- Communicate natural resource information to the public.
- Classify natural resources.
- Apply principle of entrepreneurship in businesses.
- Compose and analyze a business plan for an enterprise.
- Apply appropriate management skills to manage a business.
- Maintain and interpret financial information for business.
- Conduct appropriate market and marketing research.
- Manage risk and uncertainty.

ACT Reading and Writing Standards:

- Show a basic understanding of the persuasive purpose of the task by taking a position on the issue in the prompt.
- Generate reasons for a position
- Maintain a focus on the general topic in the prompt throughout the essay
- Provide a simple organizational structure by logically grouping some ideas
- Present an introduction and conclusion
- Show a basic control of language
- Locate and interpret minor or subtly stated details in somewhat challenging passages
- Locate important details in more challenging passages
- Draw subtle logical conclusions in somewhat challenging passages
- Draw logical conclusions in more challenging passages
- Paraphrase virtually any statement as it is used in somewhat challenging passages
- Paraphrase some statements as they are used in more challenging passages
- Order simple sequences of events in somewhat challenging literary narratives

- Understand point of view in somewhat challenging passages

Unit

- 1. Supervised Agricultural Experience**
- 2. Hydroponics**
- 3. Forestry**
- 4. Soils**
- 5. Land Descriptions**
- 6. Animals**
- 7. Parliamentary Procedure**
- 8. Agricultural Mechanics**
- 9. Wildlife**
- 10. Farm Business Management**

Unit Outlines

1. Supervised Agricultural Experience

Standards:

- Prepare and maintain all files needed to accomplish effective record keeping.
- Various standards apply to each individualized project.

Essential Question:

- How does agriculture directly apply to my life?
- How can agriculture be a viable career?

Essential Knowledge:

- Students will determine an area of Agriculture that they have an interest in; and develop a plan with the instructor to gain work experience in their area of interest.

2. Hydroponics

Standards:

- Determine the influence of environmental factors on plant growth.
- Prepare growing medium for use in plant systems.
- Develop & implement a plant management plan for crop production.
- Harvest, handle, and store crops.
- Investigate various means to grow plants.

Essential Question:

- How can hydroponics be used to produce an agricultural product?

Essential Knowledge:

- Students will learn what a hydroponic system is.
- Students will learn why a hydroponics system can be beneficial.
- Students will set up their own hydroponics system & watch it grow & flourish.

3. Forestry

Standards:

- Apply knowledge of natural resource components to the management of natural resource systems.
- Compare and contrast trees and other woody plants.

Essential Question:

- If considering a career in forestry or natural resource management, what things should I know in order to be successful?

Essential Knowledge:

- Students will be able to identify the parts of a tree.
- Students will be able to measure a tree to estimate height and board feet contained within the tree.
- Students will be able to determine the environment factors that influence tree growth and development.

4. Soils

Standards:

- Determine the nutrient content of soil using appropriate laboratory procedures and prescribe fertilization based on results.
- Apply soil science and microbiology principle to environmental service systems.

Essential Question:

- How is soil one of the most valuable resources that we have?

Essential Knowledge:

- Students will be able to take a soil sample and analyze it for its ability to support plant life.
- Students will learn how soil is formed.
- Students will learn the various particle sizes of soil.
- Students will learn the importance of soil conservation.

5. Land Descriptions

Standards:

- Explain and demonstrate surveying and mapping principles with identification/description of surveying and mapping equipment with awareness for infrastructure.
- Communicate natural resource information to the public.

Essential Question:

- How is land measurement used in a variety of agricultural careers?

Essential Knowledge:

- Students will be able to identify property areas based off a legal land description.
- Students will be able to create a legal land description.
- Students will be able to read legal land descriptions.
- Students will be able to read a plat book to identify properties.

6. Animals

Standards:

- Classify animals according to the taxonomical classification system.
- Appraise and evaluate the economic value of animals for various applications in the agriculture industry.
- Assess an animal to determine if it has reached its optimal performance level based on anatomical and physiological characteristics.
- Evaluate and select animals to maximize performance based on anatomical and physiological characteristics that affect health, growth and reproduction.
- Develop efficient procedures to produce consistently high quality animals, well suited for their intended purposes.
- Describe how selection and geographical regions impact the economic decisions of our livestock business.
- Demonstrate safe animal handling and management techniques.

Essential Question:

- How can genetics of our animals be a valuable investment?

Essential Knowledge:

- Students will be able to identify breeds of common farm animals.
- Students will be able to use a Punnet Square to determine genetic possibility of offspring.
- Students will be able to explain the correct handling and treatment of animals.
- Students will be able to determine the difference between animal welfare and animal rights and animal exploitation.

7. Parliamentary Procedure

Standards:

- Communicate and collaborate with others to accomplish tasks and develop solutions to problems and opportunities.
- Identify and apply employability skills.
- Assess benefits and challenges of working in diverse settings and on diverse teams.
- Apply leadership skills in real-world, family, community and business and industry applications.

Essential Question:

- How can parliamentary procedure help me to be more valuable to my community?

Essential Knowledge:

- Students will understand what Parliamentary Procedure is and why it is used.
- Students will be able to demonstrate to the instructor how to correctly use a main motion and amendment.

8. Agricultural Mechanics

Standards:

- Identify and use hand and power tools and equipment for service, construction, and fabrication.

Essential Question:

- What things need to be done in order to maintain large farm equipment?

Essential Knowledge:

- Students will be able to identify common farm machinery and describe their purpose/primary use.

9. Wildlife

Standards:

- Communicate natural resource information to the public.
- Classify natural resources.

Essential Question:

- How are various species of wildlife managed?

Essential Knowledge:

- Students will be able to do a wildlife population estimate for a given area.
- Students will be able to identify characteristics of various species of wildlife.
- Students will be able to understand and interpret hunting regulations for our area.

10. Farm Business Management

Standards:

- Apply principle of entrepreneurship in businesses.
- Compose and analyze a business plan for an enterprise.
- Apply appropriate management skills to manage a business.
- Maintain and interpret financial information for business.
- Conduct appropriate market and marketing research.
- Manage risk and uncertainty.

Essential Question:

- What things need to be factored into the management of a farm to develop a saleable commodity?

Essential Knowledge:

- Students will be able to use current market information to make management choices on a farm simulation.

