# Introduction to Agriculture Course No. 18001 Credit: 1.0

|  |  |  |  |
| --- | --- | --- | --- |
| **Student name:** |  | **Graduation Date:** |  |

Pathways and CIP Codes: **Animal Science, Health, and Related Industries (01.0901); Agricultural Technology and Mechanical Systems (01.0201); Diversified Agricultural Science (01.0000); Food Products and Processing Systems (01.0401); Natural Resources and Environmental Sustainability (03.0101); Plant Science and Industry Operations (01.1101).**

Course Description: **Introductory Level:** Introduction to Agriculture courses survey a wide array of topics within the agricultural industry, exposing students to the many and varied types of agriculture and livestock career opportunities and to those in related fields (such as natural resources). These courses serve to introduce students to the agricultural field, providing them an opportunity to identify an area for continued study or to determine that their interest lies elsewhere. They often focus on developing communication skills, business principles, and leadership skills.

Special Note: The AFNR College and Career Ready Skills are to be taught throughout the course utilizing FFA and SAE programming found at the Kansas Ag Ed website. Specific activities may be found in the SAE for All Teachers Guide and at National FFA.org. The AFNR College and Career Ready Skills competencies can be found at Kansas Ag Ed.

Opportunities in Agriculture Education & FFA:Classroom and laboratory instruction integrates and/or is supplemented by experiential, project, and leadership and personal development through FFA .Students should be introduced to FFA through leadership activities and College and Career Ready Skills. Specific FFA information and activities may be found in the “National FFA Student Handbook, 16thedition”. Student activities, scoring rubrics, grading examples, and teacher lessons are all found in the “FFA Student Handbook Teachers Guide”. Additional information can be found at [www.ffa.org](http://www.ffa.org/).

Workplace Skills, Supervised Agricultural Experience and Record Keeping: Classroom and laboratory instruction integratesand/or is supplemented by experiential, project, and work based learning through SAE. Specific SAE activities that support the College and Career Ready Skills may be found in the “SAE for All Guide”. Students should be introduced to Foundational SAE’s and the AET student portfolio system. Student activities, scoring rubrics, grading examples, and teacher lessons are all found in the “SAE for All Teachers Guide”. Additional information is found in the SAE Individual Learning Guides and Teacher Editions and in the AFNR College and Career Ready Competency Profile found at *Kansas Ag* *Ed.*

Directions:The following competencies are required for full approval of this course. Check the appropriate number to indicate the level of competency reached for learner evaluation.

**RATING SCALE:**

4. Exemplary Achievement: Student possesses outstanding knowledge, skills or professional attitude.

3. Proficient Achievement:Student demonstrates good knowledge, skills or professional attitude. Requires limited supervision.

2. Limited Achievement:Student demonstrates fragmented knowledge, skills or professional attitude. Requires close supervision.

1. Inadequate Achievement:Student lacks knowledge, skills or professional attitude.

0. No Instruction/Training:Student has not received instruction or training in this area.

## Benchmark 1: Concepts of Agriculture

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 1.1 | Analyze how the world population affects today’s agriculture industry. |  |
| 1.2 | Identify significant historical developments in agriculture. |  |
| 1.3 | Examine important research achievements in agriscience and future research implications. |  |
| 1.4 | Compare and contrast the methods of agriculture used in the local, county, state, nation, and world. |  |
| 1.5 | Describe the importance of agriculture products in everyday life. |  |
| 1.6 | Discuss current agricultural events that impact the local community and state. |  |

## Benchmark 2: Careers in Agriculture

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 2.1 | List the career pathways for agriculture, food and natural resources. |  |
| 2.2 | Research a potential Agricultural career and a strategy to advance in that career. |  |

## Benchmark 3: Leadership

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 3.1 | Define and identify characteristics of leadership opportunties. |  |
| 3.2 | Differentiate between a group and a team and it’s benefits. |  |
| 3.3 | Understand and create personal goals using S.M.A.R.T. goals. |  |
| 3.4 | Describe the purpose and benefits of parliamentary procedure and demonstrate five parliamentary procedure motions. |  |

## Benchmark 4: Oral Communications

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 4.1 | Organize notes and ideas for formal, semiformal, and informal presentations. |  |
| 4.2 | Prepare and deliver a presentation appropriate to subject matter, purpose, and audience using visual media. |  |
| 4.3 | Use interviewing techniques to gather information. |  |
| 4.4 | Participate in group communication activities. |  |
| 4.5 | Demonstrate job interview skills. |  |

## Benchmark 5: Agribusiness Systems

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 5.1 | Compare the three segments of agribusiness and identify examples of each segment. |  |
| 5.2 | Define entrepreneurship. |  |
| 5.3 | Identify methods of marketing. |  |
| 5.4 | Graph an agricultural example of supply and demand. |  |

## Benchmark 6: Plant Systems

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 6.1 | Identify and define the functions of vegetative and reproductive parts of plants. |  |
| 6.2 | Distinguish between sexual and asexual reproduction. |  |
| 6.3 | Compare and perform the primary methods of asexual reproduction in plants. |  |
| 6.4 | Identify the top five crops in your county and state. |  |
| 6.5 | Describe the requirements for plant growth. |  |
| 6.6 | Compare and contrast monocots and dicots. |  |
| 6.7 | Identify machinery used in forage, crop, horticulture, and landscape businesses. |  |

## Benchmark 7: Animal systems

### Competencies

| **#** | **Description** | **RATING** |
| --- | --- | --- |
| 7.1 | Define domestic animals and their basic needs and proper care. |  |
| 7.2 | Discuss the types and purposes of livestock and companion animals. |  |
| 7.3 | Define and describe the difference between animal rights and animal welfare. |  |
| 7.4 | Compare the types of animal digestive systems. |  |
| 7.5 | Identify and compare breeding management systems (reproduction). |  |
| 7.6 | Identify animal terminology. |  |
| 7.7 | Describe trends in the animal science industry. |  |

## Benchmark 8: Power Structural & Technical Systems

### Competencies

| **#** | **Description** | **RATING** |
| --- | --- | --- |
| 8.1 | Research and identify components required in a health and safety performance plan. |  |
| 8.2 | Identify emergency response procedures for health and safety issues at AFNR workplaces. |  |
| 8.3 | Examine and categorize examples of how to avoid health and safety issues at AFNR workplaces. |  |
| 8.4 | Demonstrate safety practices in laboratory work and safety techniques with hand and power tools. |  |
| 8.5 | Locate safety equipment and emergency exits in the agricultural mechanics laboratory. |  |
| 8.6 | Identify standard tools, equipment and safety procedures related to AFNR tasks. |  |

## Benchmark 9: Natural Resource Systems

### Competencies

| **#** | **Description** | **Rating** |
| --- | --- | --- |
| 9.1 | List and describe major kinds of natural resources. |  |
| 9.2 | Define sustainable resources. |  |
| 9.3 | Compare and contrast conservation and preservation. |  |
| 9.4 | Illustrate and describe the food chain and food web. |  |
| 9.5 | Identify Kansas wildlife and their habitats. |  |
| 9.6 | Research an endangered species. |  |
| 9.7 | Identify the major components of soil. |  |

## Benchmark 10: Environmental Systems

### Competencies

| **#** | **Description** | **rating** |
| --- | --- | --- |
| 10.1 | Discuss major types and sources of pollution. |  |
| 10.2 | Develop a plan of action to improve the environment. |  |
| 10.3 | Illustrate the water cycle. |  |
| 10.4 | Illustrate the Carbon Cycle. |  |
| 10.5 | Discuss carbon sequestration and the impact on extreme events. |  |
| 10.6 | Discuss alternative fuels and their relationship to agriculture. |  |

## Benchmark 11: Food Products & Processing Systems

### Competencies

| **#** | **Description** | **Rating** |
| --- | --- | --- |
| 11.1 | List the steps food must go through to from the producer to the consumer. |  |
| 11.2 | Identify food safety concerns and the government agencies in food production. |  |
| 11.3 | Discuss biotechnology advancements currently and predictions in the food industry. |  |

## Benchmark 12: Agricultural Issues

### Competencies

| **#** | **Description** | **Rating** |
| --- | --- | --- |
| 12.1 | Identify and describe a technological advancement that has happened in the last five years. |  |
| 12.2 | Research a current agricultural issue. |  |
| 12.3 | Discuss nutritional needs of humans and the food groups they need. |  |
| 12.4 | Cite important relationships between land characteristics and water quality. |  |

I certify that the student has received training in the areas indicated.

Instructor Signature:

For more information, contact:

CTE Pathways Help Desk

(785) 296-4908

[pathwayshelpdesk@ksde.org](mailto:pathwayshelpdesk@ksde.org)



900 S.W. Jackson Street, Suite 102

Topeka, Kansas 66612-1212

[https://www.ksde.org](https://www.ksde.org/)

The Kansas State Department of Education does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities and provides equal access to any group officially affiliated with the Boy Scouts of America and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: KSDE General Counsel, Office of General Counsel, KSDE, Landon State Office Building, 900 S.W. Jackson, Suite 102, Topeka, KS 66612, (785) 296-3201.