

COURSE PROPOSAL - NORTH BOONE CUSD 200

North Boone High School New Course Proposal Form (25-26 school year)

Proposed Course Name: **Animal Science**

Old Course Name (if applicable):

Submitted By: **Kelsey Macke**

Implementation Date: **August 2026**

Length of Course: **1 year**

Open to which grade levels: 11/12

Prerequisites: C or higher in Biology

Pass/Fail Option: **No**

Credit: **1**

If the course meets a graduation requirement, which one does meet? 3 years of science

Where does this course fit into the department sequence?

This course would be an elective option after completing Biology. It would be an additional option that would address student interests in applicable areas of science. It would touch on an area that builds and expands on, but also varies from what students are introduced to in Biology, Chemistry, Physical Science, and/or Earth Science.

What is the potential impact of this course on the other department offerings? Could be complementary with biology and anatomy and physiology as it covers nutrition and reproduction. Nutrition also addresses an exchange of energy which compliments concepts taught in physical science.

Course Description:

This course will introduce students to developing skills and knowledge on the topics of animal science, including animal production, animal behavior, animal reproduction, and animal nutrition. This course would involve training of a dog during one of the quarters.

Special Notes (i.e., extended periods, team teaching, etc.):

I would like to incorporate a local animal rescue to develop a program in which animals are trained during the behavior unit to help students get hands-on experience, connect with the community, and help the dogs. It would depend logistically on the limitations of

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the animal rescue and of the school, but I would ideally love for students to get a dog on Monday and keep it with them through Friday. Of course, this might be difficult so I would work in tandem with the families, the school, and the rescue to find a realistic method for this.

RATIONALE, OBJECTIVES, STRATEGIES

1. Course Rationale

A) What is the evidence of student need for this course? What student data shows that students are interested in this course?

This course would cater to student interests in agriculture, animal production, and veterinary studies. Students in my anatomy and physiology course have expressed interest in veterinary studies. Combining anatomy and physiology with animal sciences could steer them on the pathway for veterinary science. Students have also expressed interest in further, more challenging courses for science classes their senior year.

B) What departmental needs/goals would this course meet?

The need for additional science electives is something we have discussed in PLC meetings. This would provide an additional science elective for students and aid in goals of students getting hands-on experience in the scientific and agricultural fields. In our department, one focus is using scientific practices to draw conclusions and apply scientific methods. This class would encourage students to do this as it is a very application based course.

C) What institutional needs/goals would this course meet?

This course would address student desire for agricultural education and cater to many students who have backgrounds in agriculture, particularly working with animals.

2. Course Priority Standards: List 5-6 standards that will be the focus of the curriculum. These standards are priorities because they meet the following criteria:

AS.01.01. Evaluate the development and implications of animal origin, domestication, and distribution on production practices and the environment.

AS.02.01. Explain management techniques that ensure animal welfare.

AS.03.01. Analyze the nutritional needs of animals.

AS.03.02. Analyze feed rations and assess if they meet the nutritional needs of animals.

AS.04.03. Apply scientific principles to animal breeding.

AS.05.01. Design and evaluate animal housing, equipment, and handling facilities for the major systems of animal production.

Standards selected from the National Agriculture, Food, and Natural Resources content standards.

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3. List the main topics to be taught.

Unit 1: Animal Production and Introduction to Animal Science

- Explore the livestock industry (beef, dairy, swine, sheep, goat, equine, poultry)
- Explore products harvested by humans for agricultural purposes
- Animal health

Unit 2: Animal Behavior

- Behavior modification
- Animal welfare
- Application of animal behavior

Unit 3: Animal Nutrition

- Types of digestive systems
- Types of feed and nutrition
- Balancing feed rations

Unit 4: Animal Reproduction

- Genetics
- Reproductive systems
- Reproductive management

4. What types of student assessment procedures will be used? How will the assessment be used to guide instruction?

Assessments will be used in the form of assessing their ability to apply the learned topics to various agricultural examples. To express their understanding of welfare, students will create a demonstration of a habitat that addresses welfare. To assess their understanding of behavior, students will apply different training methods to an animal. To demonstrate their understanding of animal nutrition, students will create a balanced feed ration for various types of digestive systems. Traditional assessments in the form of tests/quizzes will also be utilized to ensure students are understanding the topics covered and are ready to move on to proceeding topics.

5. List resources needed and approximate costs to implement this course. Include staff development, materials, textbooks, additional staff, equipment, technology resources, facilities, and fees.

The dogs needed for the behavior unit would hopefully be cost free given the cooperation of an animal rescue. For animal production, I would like to take students on a field trip to a farm that produces some type of animal product. Depending on student interest, dissection of a cow uterus and a pig digestive system may be desired. Cost would depend on how many students are enrolled in the course.

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Include any additional information pertinent to your course.

My major during my Bachelor's was animal science so I am prepared to create a rigorous, yet engaging course for students to expand on pre-existing knowledge, develop career-based skills, and provide an additional science elective.

Signatures: Form must be signed before it can be presented to the Curriculum, Instruction, and Assessment Committee.

Building Principal: Marc Schwann Date: 10-30-2025

Curriculum Director: Kari N. Date: 11-3-25

Superintendent: [Signature] Date: 11/3/25

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