Central Lakes College, Brainerd Campus 2025-2026 Animal Science Core Concepts

Certificate (C146)

Required Courses

Required Discipline Courses (16 credits)

ANSI 1110	Food Safety: From Farm to Fork 3 cr
ANSI 1115	Companion Animal Biology and Care 3 cr
ANSI 1120	Backyard Poultry Biology & Management 3 cr
ANSI 2102	Principles of Animal Health 3 cr
Choose one ANSI 1100	of the following courses: Introduction to Animal Science OR
ANSI 2100	Fundamentals of Animal Nutrition OR
ANSI 2104	Intro to Anatomy & Physiology of Domestic
	Animals 4 cr

GRADUATION REQUIREMENT - 16 CREDITS

Description

The Animal Science Core Concepts Certificate provides students with a broad introduction to the basic science and management behind raising healthy, content, agricultural production animals, profitably and humanely as well as how to care for companion animals including: reptiles, amphibians, birds, rodents, dogs, cats and horses. Specific topics included in the certificate are: nutrition, animal anatomy and physiology, animal health, companion animal biology and care, animal behavior, biosecurity on the farm, zoonotic diseases and food safety.

Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate a general understanding of the scientific and management practices involved in the agricultural animal production industries: dairy industry, beef industry, swine industry, poultry industry, aquaculture industry, rendering industry & feed industry;
- Locate and identify common anatomical features of domestic animals and explain the physiological function of the 11 major body systems and their primary organs;
- Read and interpret a feed tag or nutrition label and determine if the product is adequate to meet nutritional requirements of a specific species and class of animal;
- List the major causative agents of disease in domestic animals, the organs/tissues/systems they affect and diseases they result in and explain the function of the basic body defense systems and the principals of prevention of disease;
- Explain how to choose, feed, house, breed, care for and manage the major species of companion animals kept as pets in the U.S.; and
- Describe the types of substances that fall into the three categories of food contaminants and the risk factors associated with each sector of the food chain production, harvest, transporting, processing, distribution, retail sale and home use.

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Pre-Program Requirements

Some courses may require students to meet College Placement Levels in reading, writing, and/or math. See an advisor for more information.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

- College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
- College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
- Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Career & Transfer

Students completing this certificate could be eligible for an animal technician position in any of the following animal industry segments: an animal production or care facility, humane society, COOP, zoo, farm retail sales, or any agriculturally related industry that serves or works with animals, including companion animals.

The courses included in this certificate DO NOT include the hands-on experience required for a student to become a Veterinary Technician or to qualify to take the Veterinary Technician certification exam.