

AE.LAS. PRE-VET/LARGE ANIMAL SCIENCE

ESSENTIAL CURRICULUM

- AE.LAS.10 Develop an awareness of the large animal industry and an understanding of animal rights and welfare**
- AE.LAS.10.01 Describe the importance of the large animal industry.
 - AE.LAS.10.02 Explain the use of large animals in society.
 - AE.LAS.10.03 Define animal rights and animal welfare.
 - AE.LAS.10.04 Discuss issues concerning animal rights and welfare.
- AE.LAS.20 Develop leadership skills and an awareness of careers in the vet/large animal industry.**
- AE.LAS.20.01 Explain the value of leadership in course related careers.
 - AE.LAS.20.02 Develop speaking skills needed when working with the public.
 - AE.LAS.20.03 Identify potential career opportunities through participation in FFA Career Development Events.
 - AE.LAS.20.04 Compare opportunities in large animal care and management.
 - AE.LAS.20.05 Describe the nature of the work, salaries, and requirements necessary for obtaining a job in the areas of small animal care.
- AE.LAS.30 Veterinary Medical Terminology**
- AE.LAS.30.01 Students will be able to analysis veterinary terms to define their meanings.
 - AE.LAS.30.02 Students will recognize common Greek and Latin prefixes suffixes and roots.
 - AE.LAS.30.03 Students will be able to list abbreviations commonly used in veterinary medicine.
- AE.LAS.40 Exercise knowledge of general safety when working with large animals.**
- AE.LAS.40.01 Describe safety procedures to be used in the lab.
 - AE.LAS.40.02 Identify safe methods of working with and around large animals.
 - AE.LAS.40.03 Identify methods of restraining and handling various large animals.
 - AE.LAS.40.04 Identify equipment used to restrain large animals.
- AE.LAS.50 Recognize characteristics of a healthy animal and care required to maintain animal health and well-being.**
- AE.LAS.50.01 Develop an understanding of what a healthy animal looks like.
 - AE.LAS.50.02 Understand how to take the temperature, pulse and respiration rate of large animals.
 - AE.LAS.50.03 Properly fill and read a syringe.
 - AE.LAS.50.04 Apply different types of bandages to various areas of the body.
 - AE.LAS.50.05 Calculate different medication amounts.
 - AE.LAS.50.06 Properly label medications.

- AE.LAS.50.07 Identify vet tools and equipment
 - AE.LAS.50.07.A. Surgical Instruments and Terminology
 - AE.LAS.50.07.B. Castrating Equipment
 - AE.LAS.50.07.C. Dehorning Equipment
 - AE.LAS.50.07.D. Injection Equipment
 - AE.LAS.50.07.E. Balling Guns, Pumps, and Dosing Equipment
 - AE.LAS.50.07.F. Obstetric Equipment
 - AE.LAS.50.07.G. Hoof Equipment
 - AE.LAS.50.07.H. Post Mortem Equipment

AE.LAS.60 **Demonstrate knowledge of nutrition and digestive systems of large animals.**

- AE.LAS.60.01 Define the terms nutrient and nutrition.
- AE.LAS.60.02 List the six basic nutrient groups.
- AE.LAS.60.03 Define basic feeding guidelines.
- AE.LAS.60.04 Discuss digestive systems.
- AE.LAS.60.05 Discuss the importance of the various nutrients in the diet of animals.
- AE.LAS.60.06 Discuss nutritional diseases and deficiencies.

AE.LAS.70 **Immunology, Zoonosis and Public Health and Animal Diseases**

- AE.LAS.70.01 Distinguish between active and passive immunity and describe how it's developed.
- AE.LAS.70.02 Develop an understanding of laws and regulations that govern animal health.
- AE.LAS.70.03 Explain the importance of zoonotic relationship to our food supply.
- AE.LAS.70.04 Describe the process of immunity.
- AE.LAS.70.05 Discuss the methods of identification, prevention and maintenance of five large animal diseases.
 - AE.LAS.70.05.A. List the factors that influence health and wellness.
 - AE.LAS.70.05.B. Discuss the factors that may cause disease.
 - AE.LAS.70.05.C. Describe the signs of disease.
 - AE.LAS.70.05.D. Explain how different diseases work and affect the body and the methods used to treat those diseases.
- AE.LAS.70.06 Recognize the causes of diseases such as:
 - AE.LAS.70.06.A. Infectious diseases
 - AE.LAS.70.06.B. Non-Infectious diseases
 - AE.LAS.70.06.C. Internal and external parasites
 - AE.LAS.70.06.C.01 Describe the general clinical signs of an animal with a parasite infestation
 - AE.LAS.70.06.C.02 Diagram the life cycles of internal and external parasites
 - AE.LAS.70.06.C.03 Identify adult parasites and parasite eggs using a microscope.
 - AE.LAS.70.06.C.04 Discuss heartworms in depth.
 - AE.LAS.70.06.C.05 Heredity/Genetics

- AE.LAS.70.06.C.06 Stress
- AE.LAS.70.06.C.07 Poisons
- AE.LAS.70.06.C.08 List ways in which disease are transmitted.

AE.LAS.80 Anatomy & Physiology and Reproduction

- AE.LAS.80.01 Describe the functions of the skeletal, muscular, circulatory, respiratory, urinary and nervous systems.
- AE.LAS.80.02 Identify the bones of the skeleton and relate them to a live animal.
- AE.LAS.80.03 Identify ten muscles and relate them to a live animal.
- AE.LAS.80.04 Identify structures of the heart, as well as major veins and arteries.
- AE.LAS.80.05 Identify parts of the upper and lower respiratory tract.
- AE.LAS.80.06 Identify parts of nerve cells and the brain.
- AE.LAS.80.07 Describe how the body seeks to maintain a state of homeostasis.
- AE.LAS.80.08 Male reproductive system
- AE.LAS.80.09 Female reproductive system
 - AE.LAS.80.09.A. Palpation
 - AE.LAS.80.09.B. Ultrasounds
- AE.LAS.80.10 Reproductive cycle
- AE.LAS.80.11 Artificial Insemination
 - AE.LAS.80.11.A. Collecting and Handling Semen
- AE.LAS.80.12 Embryo Transfer
- AE.LAS.80.13 Parturition

AE.LAS.90 Veterinary Hospital/Office Management and Clinical Lab Procedures

- AE.LAS.90.01 Telephone courtesy
 - AE.LAS.90.01.A. Identify office calls that may be emergencies
- AE.LAS.90.02 Scheduling Appointments
- AE.LAS.90.03 Handling Medical and Fee Inquiries
- AE.LAS.90.04 Client Registration Forms
- AE.LAS.90.05 Medical Record
- AE.LAS.90.06 Financial Records
- AE.LAS.90.07 Filing
- AE.LAS.90.08 Speech Communication
 - AE.LAS.90.08.A. Explain the difference between verbal and non-verbal communication.
- AE.LAS.90.09 Describe how inventory works and why it is important to maintain an efficient inventory control program.
- AE.LAS.90.10 Urine, Fecal and Blood Examination
- AE.LAS.90.11 Surgery Preparation and Procedure
- AE.LAS.90.12 Correctly prepare and stain a blood film
- AE.LAS.90.13 Use a microscope to correctly identify the different types of blood cells.
- AE.LAS.90.14 Correctly perform a urinalysis.

- AE.LAS.90.15 Prepare antibiotic sensitivity test and read the results.
- AE.LAS.90.16 Describe the path of blood through the heart.
- AE.LAS.90.17 Describe abnormalities commonly seen in blood films.
- AE.LAS.90.18 Explain why it is vital that all laboratory tests are properly performed.

AE.LAS.100 **Develop a working knowledge of common large animal species:**

- AE.LAS.100.01 Dairy and Beef
- AE.LAS.100.02 Goats/Sheep
- AE.LAS.100.03 Pigs
- AE.LAS.100.04 Horses
- AE.LAS.100.05 Poultry