



Veterinary Science

Course Outline

Course Overview

As animals play an increasingly important role in our lives, scientists have sought to learn more about their health and well-being. Taking a look at the pets that live in our homes, on our farms, and in zoos and wildlife sanctuaries, this course will examine some of the common diseases and treatments for domestic animals. Toxins, parasites, and infectious diseases impact not only the animals around us, but at times...we humans as well! Through veterinary medicine and science, the prevention and treatment of diseases and health issues is studied and applied.

Course Content and Suggested Timelines

The suggested timeline is for students aiming to complete the course in one semester (5 months). Double the timeframes for two semesters (10 months).

Unit 1: Introduction to Veterinary Science (Suggested time: 2 weeks)

In this unit, we will explore the areas of veterinary science and medicine. We will learn about the history of veterinary science and medicine as well as the current areas of research. We will investigate the education and other requirements for veterinarians and veterinary scientists. The ethics of the profession will be explored and you will engage in discussion of controversial issues through selected examples.

Unit 2: Small Animal Medicine (Suggested time: 2.5 weeks)

Students will learn what the nervous, endocrine and gastrointestinal systems consist of and what they do for the body. Students will examine how skeletal and muscle disorders can affect animals. The topic of disease will be a focus of this unit; students will analyze several infectious diseases and understand how these diseases are transmitted. Through this analysis, students will investigate the causes and symptoms of the diseases as well as treatments and preventative methods that veterinary scientists have discovered.

Unit 3: Large Animal Medicine (Suggested time: 2 weeks)

Students will apply understanding of bodily systems and disease transmission from unit 2 to large animals in unit 3. The focus of this unit is the health of horses, cattle and swine with an emphasis on why the health of these large animals is important for public health. We will learn about several diseases that can affect horses and how they are treated. We will examine mad cow disease and understand the impact of this disease on cattle herds, farmers and the public. We will further investigate some diseases that affect swine and

how they are treated.

Unit 4: Exotic Animal Medicine (Suggested time: 2.5 weeks)

In this unit, we will understand why certain animals are classified as 'exotic' and why treating these animals may take additional education and training. You will learn about some of the diseases that affect birds and reptiles and what treatments are used for these diseases. We will examine what roles veterinary scientists may fill in zoological parks and sanctuaries and will investigate what challenges veterinary scientists face when working with animals such places.

Unit 5: Poison and Toxicology (Suggested time: 2 weeks)

The aim of this unit is to understand the concepts of toxicology, toxicity and toxicosis in relation to veterinary science and medicine. We will learn how acute toxicosis differs from chronic toxicosis. We will discuss how exposure to toxins can occur and what factors affect toxicity. You will examine some of the natural forms of poisoning, such as poisoning from certain plants/ fruits and bites from poisonous snakes. You will investigate some artificial substances that can cause poisoning such as rodenticides.

Unit 6: Veterinary Parasitology (Suggested time: 2.5 weeks)

This unit will explore the definition of a parasite and the relationship that they have with their hosts. We will discuss several different types of parasites and how they differ. We will examine how animals may become infected with parasites and how parasites may be transferred from animal to animal. We will also investigate some of the different symptoms that animals can experience due to parasites and some of the different life cycles for common parasites.

Unit 7: Zoonotic Diseases (Suggested time: 2 weeks)

We will learn about zoonosis and why they are a concern to veterinary scientists and public health officials. This unit will investigate several different zoonotic diseases: Hantavirus and how it is transmitted to humans, the plague and how it has impacted human societies throughout history, anthrax and how it can be transmitted to humans, and ringworm.

Unit 8: Holistic Veterinary Science and Medicine (Suggested time: 2.5 weeks)

In the last unit, we will learn about holistic and allopathic veterinary treatments and how they differ. We will discuss the use of acupuncture for the treatment of animal diseases. You will examine how hydrotherapy can benefit horses and dogs and how herbs and botanicals are used to treat animal diseases. You will also learn about the use of essential oils with animals.

Course Materials

There is no textbook for this course as all resources are found directly in the course itself.

Assessment Information

Text Questions: 20%

Lab Assignments: 20%

Discussion Questions: 20%

Unit Quizzes: 20%

Exams: 20%

Review Questions and Laboratory Assignments

Successful students will demonstrate their learning by answering questions that are taken directly from the course materials. Additional research is not a bad idea if you want to add additional examples but when you do, please include sources and links to materials your teacher can view.

Learning demonstrated in the Critical Thinking questions should combine prior knowledge, new information and opinions. Students should define terms in their answers, recount examples thoroughly, demonstrate an understanding of the Veterinary Science field (including any history or people connections) that is used to make determinations, and the way the science is applied to the field.

It will be difficult for you to do this with less than a paragraph.

Discussion Questions

Successful discussion answers will take the questions posed and use critical thinking to address the subject. Some research can help to answer the question, and examples are always a good idea. Understanding the unit materials and careful consideration of your own personal strengths as it relates to the career will also help.

Unit Quizzes

Students will complete a timed quiz at the end of each unit. A study focus on content, theories, ideas, people and the language used in Veterinary Science will ensure success.

Midterm Exam and Final Exam

The midterm exam focuses on the learning outcomes of the first four units of the course. The final exam focuses on the learning outcomes of the last four units of the course.

When students are not meeting the learning outcomes/falling behind

When students fall behind the expected pace or plan, they will be contacted via email or phone and if there is no improvement or response, parents will also be contacted. If deemed necessary, contact with the student home school may also occur to help determine a solution.

Students are expected to let the course teacher know when they are struggling with course content. In response, the course teacher will provide appropriate help or strategies to support learning. The course teacher will also provide feedback on course work to support learning and help students improve. Parents will be made aware if their child is actively working but struggling to meet the learning outcomes of the course.

Students falling behind in a manner where it does not appear that they will complete the course within a year will be sent reminder emails. Without a response or renewed efforts in the course, the student may be assigned an F or withdrawn. Should they begin actively working in the course, the student may be given an alternate completion date.

Expectations

- Adhere to the EBUS Academic Integrity Policy
- Contact your teacher when help is needed
- Review feedback from assignments and tests, where applicable
- Work to complete the course in a timely manner
- Communicate respectfully
- Review weekly progress reports

Reporting to Parents:

There are 4 term report cards that can be downloaded from the student dashboard. A notice will go out when these report cards are available.

Every week that EBUS is in Session the teacher will send out a progress report showing the student's progress.

Contacting Your Teacher:

Your teacher will be available Monday- Friday during regular school hours. If you are having trouble with any concepts, please contact your teacher right away!

Your teacher for this course is:

Julie Macdonald

jmacdonald@sd91.bc.ca

1 800 567 1236 ext 2246