Introduction to Veterinary Science

Course Overview

This one-semester course is intended for you to familiarize yourself with the knowledge and skills required for a career in the veterinary industry. This course has 13 lessons organized into three units, plus three Unit Activities. Each lesson contains one or more Lesson Activities.

In the Introduction to Veterinary Science course, you will explore the history of veterinary science, and the skills and requirements for a successful career in the veterinary industry. You will also explore the physiology and anatomy of animals, learn how to evaluate their health, and determine effective treatment for infectious and noninfectious diseases. Additionally, you will learn about zoonotic diseases, and the impact of toxins and poisons on animal health.

Your teacher will grade your work on the Unit Activities, and you will grade your work on the Lesson Activities by comparing them with the given sample responses. The Unit Activities (submitted to the teacher) and the Lesson Activities (self-checked) are the major components of this course. There are other assessment components, namely the mastery test questions that feature along with the lesson; the pre- and post-test questions that come at the beginning and end of the unit, respectively; and an end-of-semester test. All of these tests are a combination of simple multiple-choice questions and technology-enhanced (TE) questions.

Course Goals

This course will help you meet the following goals:

- Trace the historical events and current trends in veterinary science.
- Understand academic competencies, skills requirements, and licensing in the veterinary industry.
- Explain the principles of animal anatomy and physiology.
- Explain how to evaluate the health of animals.
- Discuss musculoskeletal disorders and infectious and noninfectious diseases.
- Demonstrate methods to detect and prevent diseases in animals.
- Discuss zoonotic diseases and their impact on public health.
- Explain the impact of toxins and poisons on animal health.

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General Skills

To participate in this course, you should be able to do the following:

- complete basic operations with word-processing software, such as Microsoft Word or Google Docs
- complete basic operations with presentation software, such as a Microsoft PowerPoint or Google Docs presentation
- perform online research using various search engines and library databases
- communicate through email and participate in discussion boards

For a complete list of general skills that are required for participation in online courses, refer to the Prerequisites section of the Student Orientation document, found at the beginning of this course.

Credit Value

Introduction to Veterinary Science is a 0.5-credit course.

Course Materials

- notebook
- pencil or pen
- computer with an Internet connection and speakers or headphones
- Microsoft Word or equivalent
- Microsoft Powerpoint or equivalent

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Course Pacing Guide

This course description and pacing guide is intended to help you stay on schedule with your work. Note that your course teacher may modify the schedule to meet the specific needs of your class.

Unit 1: Veterinary Science Fundamentals

Summary

This unit focuses on various fields of veterinary science and their applications, career opportunities in the veterinary industry, and veterinary ethics and laws. In this unit, you will trace the history of veterinary science and explore the skills and competencies needed to pursue a career in veterinary science. You will also explore the small and exotic animals that veterinarians treat. Moreover, you will understand how veterinary care for large animals is important for public health. Finally, you will learn about professional ethics and legal behavior expected of veterinarians.

Day	Activity/*Objective*	Type
1 day: 1	**Syllabus and Student Orientation** *Review the Student Orientation and Course Syllabus at the beginning of this course.*	Course Orientation
5 days: 2–6	**History of Veterinary Science** *Trace the historical events and current trends in veterinary science.*	Lesson
5 days: 7–11	**Veterinary Careers and Training** *Explore academic competencies, skills requirements, and licensing in the veterinary industry.*	Lesson
5 days: 12–16	**Small and Exotic Animal Veterinary Practices** *Identify key aspects of small and exotic animal veterinary practices.*	Lesson
5 days: 17–21	**Large and Agricultural Animal Veterinary Practices** *Identify key aspects of large and agricultural animal veterinary practices.*	Lesson
5 days: 22–26	**Veterinary Ethics and Laws** *Discuss ethics and laws in the veterinary profession.*	Lesson
5 days: 27–31	**Unit Activity and Discussion—Unit 1**	Unit Activity / Discussion
1 day: 32	**Posttest—Unit 1**	Assessment

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Unit 2: Animal Body and Health

Summary

This unit focuses on the basic anatomy and physiology of animals, a systematic approach to evaluate animal health, and measures to control diseases among animals. In this unit, you will explore the difference between anatomy and physiology and learn about the characteristics of healthy animals. You will also explore the causes of musculoskeletal disorders in animals and measures to treat them. Finally, you will explore causes and treatment options for infectious and noninfectious diseases in animals.

Day	**Activity/***Objective*	Type
6 days: 33–38	**Anatomy and Physiology of Animals** *Explain the principles of animal anatomy and physiology.*	Lesson
5 days: 39–43	**Health of Animals** *Explain how veterinarians evaluate the health of animals.*	Lesson
6 days: 44–49	**Musculoskeletal Disorders in Animals** *Discuss musculoskeletal disorders in animals and measures for treating them.*	Lesson
6 days: 50–55	**Infectious Diseases** *Discuss diseases that can be transmitted from one animal to another and methods to detect and prevent them.*	Lesson
6 days: 56–61	**Noninfectious Diseases** *Explain factors that are responsible for noninfectious diseases in animals and measures for controlling them.*	Lesson
4 days: 62–65	**Unit Activity and Discussion—Unit 2**	Unit Activity / Discussion
1 day: 66	**Posttest—Unit 2**	Assessment

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Unit 3: Zoonoses, Parasites, and Toxins

Summary

This unit focuses on zoonotic diseases, the role of parasites in the spread of diseases, and the impact of toxins and poisons on animal health. In this unit, you will learn about zoonotic diseases and their transmission modes in animal and human populations. You will also study the different types of common parasites and their life cycles. Finally, you will learn how animals are exposed to toxins and explore methods to treat toxicities and poisoning in animals.

Day	**Activity/***Objective*	Type
5 days: 67–71	**Zoonotic Diseases** *Discuss zoonotic diseases and their impact on public health.*	Lesson
6 days: 72–77	**Parasitological Conditions** *Examine the role of parasites in causing diseases in animals.*	Lesson
6 days: 78–83	**Toxicosis** *Learn about the impact of toxins and poisons on animal health.*	Lesson
4 days: 84–87	**Unit Activity and Discussion—Unit 3**	Unit Activity / Discussion
1 day: 88	**Posttest—Unit 3**	Assessment
1 day: 89	**Course Review**	
1 day: 90	**End-of-Course Exam**	Assessment

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