

# Veterinary Technician

## PROGRAM OUTLINE

### PROGRAM GOAL AND OUTCOMES

#### Program Goal

To prepare you to work as veterinary technicians in small or large animal hospitals or clinics and to prepare you to take the Veterinary Technician National Examination.

| Program Outcomes  | Course   | Evidence of Learning                                       |
|---|--|--|
| Demonstrate effective written and interpersonal communication skills        | ILS103: Information Literacy                               | Unit quizzes   |
|   | SCI120: Introduction to Biology                            | Unit quizzes, essay exam, research project, proctored exam |
|   | VET106: Veterinary Office Management and Skill with People | Unit quizzes, graded project                               |
|   | ENG121: Business and Technical Writing                     | Unit quizzes, graded projects, final project               |
|   | VET131: Clinical Externship 1                              | All skills   |
|   | VET231: Clinical Externship 2                              | All skills   |
|   | ENG100: English Composition                                | Unit quizzes, written essays, journal                      |
| Demonstrate a high level of inquiry, analytical, and problem-solving skills | VET102: Introduction to Veterinary Technology              | Unit quizzes   |
|   | SCI120: Introduction to Biology                            | Unit quizzes, essay exam, research project, proctored exam |
|   | VET115: Animal Anatomy and Physiology 1                    | Unit quizzes, proctored exam                               |
|   | VET116: Animal Anatomy and Physiology 2                    | Unit quizzes, proctored exam                               |
|   | MAT102: Mathematical Applications                          | End-of-chapter problems, unit quizzes, final exam          |
| Demonstrate effective quantitative skills                                   | SCI120: Introduction to Biology                            | Unit quizzes, essay exam, research project, proctored exam |
|   | VET115: Animal Anatomy and Physiology 1                    | Unit quizzes, proctored exam                               |
|   | VET116: Animal Anatomy and Physiology 2                    | Unit quizzes, proctored exam                               |
|   | MAT102: Mathematical Applications                          | End-of-chapter problems, unit quizzes, final exam          |
|   | MAT140: Medical Mathematics                                | Chapter exercises, unit quizzes, final exam                |

|   |   |  |
|---|---|--|
| Demonstrate computer and information literacy   | ILS103: Information Literacy                  | Unit quizzes   |
|   | SCI120: Introduction to Biology               | Unit quizzes, essay exam, research project, proctored exam         |
|   | CSC115: Office Applications                   | Unit quizzes, graded projects                                      |
| Demonstrate an understanding of the liberal arts, natural sciences, and social sciences | VET102: Introduction to Veterinary Technology | Unit quizzes   |
|   | SCI120: Introduction to Biology               | Unit quizzes, essay exam, research project, proctored exam         |
|   | VET115: Animal Anatomy and Physiology 1       | Unit quizzes, proctored exam                                       |
|   | VET116: Animal Anatomy and Physiology 2       | Unit quizzes, proctored exam                                       |
|   | SSC130: Essentials of Psychology              | Unit quizzes, case studies, research project, proctored final exam |

**All program outcomes taken from the AVMA's Vet Tech Student Essential and Recommended Skills List**

**1. Office and Hospital Procedures, Client Relations, and Communication**

|   |  |  |
|---|--|--|
| Participate in facility management utilizing traditional and electronic media and appropriate medical terminology and abbreviations | VET102: Introduction to Veterinary Technology              | Unit quizzes   |
|   | ILS103: Information Literacy                               | Unit quizzes   |
|   | SCI120: Introduction to Biology                            | Unit quizzes, essay exam, research project, proctored exam |
|   | VET115: Animal Anatomy and Physiology 1                    | Unit quizzes, proctored exam                               |
|   | VET116: Animal Anatomy and Physiology 2                    | Unit quizzes, proctored exam                               |
|   | VET106: Veterinary Office Management and Skill with People | Unit quizzes, graded project                               |
|   | VET131: Clinical Externship 1                              | Skills 1–29  |
|   | VET231: Clinical Externship 2                              | Skills 1–53  |
| Communicate in a professional manner in all formats—written, oral, non-verbal, and electronic                                       | VET102: Introduction to Veterinary Technology              | Unit quizzes   |
|   | ILS103: Information Literacy                               | Unit quizzes   |
|   | SCI120: Introduction to Biology                            | Unit quizzes, essay exam, research project, proctored exam |
|   | VET131: Clinical Externship 1                              | Skills 1–29  |
|   | VET231: Clinical Externship 2                              | Skills 1–53  |
| Follow and uphold applicable laws and the veterinary technology profession's ethical codes to provide high quality care to patients | VET102: Introduction to Veterinary Technology              | Unit quizzes   |
|   | VET124: Pharmacology for Veterinary Technicians            | Unit 5 quiz  |
|   | VET131: Clinical Externship 1                              | Skills 1–29  |
|   | VET231: Clinical Externship 2                              | Skills 1–53  |

**2. Pharmacy and Pharmacology**

|  |                             |   |
|--|-----------------------------|---|
| Safely and effectively administer prescribed drugs to patients | MAT140: Medical Mathematics | Chapter exercises, unit quizzes, final exam |
|--|-----------------------------|---|

|  |   |  |
|--|---|--|
|  | VET124: Pharmacology for Veterinary Technicians             | Unit quizzes, final exam                                   |
|  | VET131: Clinical Externship 1                               | Skills 5, 7, 12, 13, 17, 21, 23, 26, 27, and 28            |
|  | VET231: Clinical Externship 2                               | Skills 6, 7, 11, 39, 40, 42                                |
| Accurately dispense and explain prescribed drugs to clients  | MAT140: Medical Mathematics                                 | Chapter exercises, unit quizzes, final exam                |
|  | VET124: Pharmacology for Veterinary Technicians             | Unit quizzes, final exam                                   |
|  | VET131: Clinical Externship 1                               | Skills 5, 7, 12, 13, 17, 21, 23, 26, 27, and 28            |
|  | VET231: Clinical Externship 2                               | Skills 6, 7, 11, 39, 40, 42                                |
| <b>3. Nursing</b>  |   |  |
| Demonstrate and perform patient assessment techniques in a variety of animal species   | VET102: Introduction to Veterinary Technology               | Unit quizzes   |
|  | SCI120: Introduction to Biology                             | Unit quizzes, essay exam, research project, proctored exam |
|  | VET131: Clinical Externship 1                               | Skills 1–29  |
|  | VET231: Clinical Externship 2                               | Skills 1–53  |
| Understand and demonstrate husbandry, nutrition, therapeutic, and dentistry techniques appropriate to various animal species | VET110: Medical Nursing for Veterinary Technicians          | Lessons 1 and 3 exams                                      |
|  | VET131: Clinical Externship 1                               | Skills 1–29  |
|  | VET231: Clinical Externship 2                               | Skills 1–53  |
|  | VET225: Animal Nutrition, Reproduction, Genetics, and Aging | Unit 1, 2, and 3 quizzes; research project                 |
| <b>4. Anesthesia</b>   |   |  |
| Safely and effectively manage and maintain patients in all phases of anesthesia  | VET212: Anesthesia for Veterinary Technicians               | Unit quizzes, final exam                                   |
|  | MAT140: Medical Mathematics                                 | Unit 3 quiz  |
|  | VET131: Clinical Externship 1                               | Skills 12, 26, 28  |
|  | VET231: Clinical Externship 2                               | Skills 6, 10, 11, 13, 39, 42, 48                           |
| Safely and effectively select, utilize, and maintain anesthetic delivery and monitoring instruments and equipment            | VET212: Anesthesia for Veterinary Technicians               | Unit quizzes, final exam                                   |
|  | VET214: Surgical Nursing for Veterinary Technicians         | Unit 2 quiz  |
|  | VET131: Clinical Externship 1                               | Skill 17   |
|  | VET231: Clinical Externship 2                               | Skills 6–13  |
| <b>5. Surgical Nursing</b>   |   |  |
| Understand and integrate all aspects of patient management for common surgical procedures in a variety of animal species     | VET214: Surgical Nursing for Veterinary Technicians         | Unit quizzes, final exam                                   |
|  | VET231: Clinical Externship 2                               | Skills 1, 2, 3, 5  |
| Understand and provide the appropriate instruments, supplies, and environment to maintain asepsis during surgical procedures | VET214: Surgical Nursing for Veterinary Technicians         | Unit quizzes, final exam                                   |
|  | VET131: Clinical Externship 1                               | Skill 29   |
|  | VET231: Clinical Externship 2                               | Skills 1, 2, 3, 5  |

**6. Laboratory Procedures**

|  |  |                          |
|--|--|--------------------------|
| Properly package, handle and store specimens for laboratory analysis | VET201: Clinical Pathology 1                             | Unit quizzes, final exam |
|  | VET202: Clinical Pathology 2                             | Unit quizzes, final exam |
|  | VET231: Clinical Externship 2                            | Skills 21–35             |
| Properly carry out analysis of laboratory specimens                  | VET222: Clinical Parasitology for Veterinary Technicians | Unit quizzes, final exam |
|  | VET231: Clinical Externship 2                            | Skills 21–32, 34         |

**7. Imaging**

|  |  |                           |
|--|--|---------------------------|
| Safely and effectively produce diagnostic radiographic and non-radiographic images | VET220: Radiography for Veterinary Technicians | Unit quizzes, final exam  |
|  | VET231: Clinical Externship 2                  | Skills 44, 50, 51, 52, 53 |

**8. Laboratory Animal Procedures**

|   |   |                          |
|---|---|--------------------------|
| Safely and effectively handle common laboratory animals used in animal research | VET228: Laboratory Animal Medicine and Nursing              | Unit quizzes, final exam |
|   | VET225: Animal Nutrition, Reproduction, Genetics, and Aging | Unit 4 quiz              |
|   | VET224: Small and Large Animal Medicine                     | Unit quizzes, final exam |
|   | VET231: Clinical Externship 2                               | Skills 47, 48            |

**9. Avian, Exotic, Small Mammals and Fish Procedures**

|   |   |                              |
|---|---|------------------------------|
| Understand the approach to providing safe and effective care for birds, reptiles, amphibians, guinea pigs, hamsters, gerbils, and ferrets | VET116: Animal Anatomy and Physiology 2                     | Unit quizzes, proctored exam |
|   | VET225: Animal Nutrition, Reproduction, Genetics, and Aging | Unit 1 quiz                  |
|   | VET231: Clinical Externship 2                               | Skills 45, 46                |

# PROGRAM STRUCTURE

| <b>SEMESTER 1</b>            |   | <b>Credits</b>     | <b>Completed</b> |
|------------------------------|---|--------------------|------------------|
| SYP104                       | Starting Your Program                               | 0                  |                  |
| VET102                       | Introduction to Veterinary Technology               | 2                  |                  |
| ILS103                       | Information Literacy                                | 1                  |                  |
| CSC115                       | Office Applications                                 | 1                  |                  |
| SCI120                       | Introduction to Biology                             | 3                  |                  |
| VET115                       | Animal Anatomy and Physiology 1                     | 3                  |                  |
| VET116                       | Animal Anatomy and Physiology 2                     | 3                  |                  |
| <b>Total</b>                 |   | <b>13</b>          |                  |
| <b>SEMESTER 2</b>            |   | <b>Credits</b>     | <b>Completed</b> |
| ENG100                       | English Composition                                 | 3                  |                  |
| VET106                       | Veterinary Office Management and Skill with People  | 3                  |                  |
| MAT102                       | Mathematical Applications                           | 3                  |                  |
| VET110                       | Medical Nursing for Veterinary Technicians          | 3                  |                  |
| MAT140                       | Medical Mathematics                                 | 3                  |                  |
| VET124                       | Pharmacology for Veterinary Technicians             | 3                  |                  |
| VET131                       | Clinical Externship 1                               | 4                  |                  |
| <b>Total</b>                 |   | <b>22</b>          |                  |
| <b>SEMESTER 3</b>            |   | <b>Credits</b>     | <b>Completed</b> |
| VET201                       | Clinical Pathology 1                                | 3                  |                  |
| VET202                       | Clinical Pathology 2                                | 3                  |                  |
| Elective (Choose one)        |   | 3                  |                  |
| HUM102                       |   | Art Appreciation   |                  |
| HUM104                       |   | Music Appreciation |                  |
| VET212                       | Anesthesia for Veterinary Technicians               | 3                  |                  |
| VET214                       | Surgical Nursing for Veterinary Technicians         | 3                  |                  |
| VET222                       | Clinical Parasitology for Veterinary Technicians    | 3                  |                  |
| <b>Total</b>                 |   | <b>18</b>          |                  |
| <b>SEMESTER 4</b>            |   | <b>Credits</b>     | <b>Completed</b> |
| VET220                       | Radiography for Veterinary Technicians              | 3                  |                  |
| VET224                       | Small and Large Animal Medicine                     | 3                  |                  |
| SSC130                       | Essentials of Psychology                            | 3                  |                  |
| VET225                       | Animal Nutrition, Reproduction, Genetics, and Aging | 3                  |                  |
| VET228                       | Laboratory Animal Medicine and Nursing              | 3                  |                  |
| VET229                       | Veterinary Technician National Examination Review   | 1                  |                  |
| VET231                       | Clinical Externship 2                               | 4                  |                  |
| <b>Total</b>                 |   | <b>20</b>          |                  |
| <b>Total Program Credits</b> |   | <b>73</b>          |                  |

# **COURSE DESCRIPTIONS AND OBJECTIVES**

## **SYP104: Starting Your Program**

In this course, you'll develop the necessary skills to ensure your success in the program. You'll learn how you can improve your study skills, so you're able to use a number of tools that will help you to be successful.

By the end of this course, you'll be able to do the following:

- Identify skills needed to be a confident and independent online learner

## **VET102: Introduction to Veterinary Technology**

This course includes an introduction to animal science and medical terminology. You'll be introduced to theories about specific behavior characteristics between species and how to handle various animal behavior. This course also focuses on proper handling and restraint techniques for various animals. You'll learn about the veterinary technician's role in patient history, physical exam, grief counseling, and client education. This course discusses applicable laws and ethical codes. By the end of this course, you'll be able to do the following:

- Demonstrate a high level of inquiry, analytical, and problem-solving skills
- Demonstrate an understanding of the liberal arts, natural sciences, and social sciences
- Explain various responsibilities of different professional roles in a veterinary practice
- Analyze behavior problems and various techniques and theories on how to eliminate behavior problems
- Choose proper and safe techniques for handling and restraining various animals
- Explain various responsibilities involved with the physical examination including patient history and client communication
- Define terminology used in the veterinary field

## **ILS103: Information Literacy**

Information literacy is a fundamental skill of writing and recording research. In this course, you'll learn what it means to formulate correct and effective research questions. You'll also learn how to go about conducting and refining that research for any given project.

By the end of this course, you'll be able to do the following:

- Identify how to formulate focused and specific research questions and the need for information
- Explain the different types of research tools, how they're used to conduct different searches, and how to evaluate the quality and usefulness of the information found
- Explain how to cite sources properly using various citation styles in consideration of academic integrity, plagiarism, and ethical use of resources

## **CSC115: Office Applications**

Microsoft Office allows you to create documents, spreadsheets, and presentations. This course will teach you how to use three popular tools from the Microsoft Office Suite—Word, Excel, and PowerPoint. In this course, you'll learn how to use Word to create and edit text documents, insert figures and tables, and format pages for a variety of uses.

You'll then learn how to use Excel to organize and format data, including charts, formulas, and more complex tables. Next, you'll learn how to use PowerPoint to create and deliver slide show presentations. Finally, you'll complete a computer application graded project, which will test the skills acquired in Word, Excel, and PowerPoint.

By the end of this course, you'll be able to do the following:

- Use features in Word to type, edit, and produce quality documents for personal and professional use.
- Use functions in Excel to create, edit, and modify spreadsheets in a workbook.
- Use PowerPoint to create, edit, and present quality presentations.
- Create a PowerPoint presentation in a final graded project.

## **SCI120: Introduction to Biology**

An introductory course that explains the origin of life and the relationships between all living things. It describes how a significant number of organisms are structured and how they work, in order to enable students to discuss intelligently the various forms of life and their processes.

By the end of this course, you'll be able to do the following:

- Analyze cells and their processes for obtaining energy and reproducing
- Illustrate how traits are passed on from one generation to the next
- Distinguish how different species of living things have evolved and are classified
- Record responses to fundamental biology essay prompts
- Categorize the characteristics and behavior of plants and animals
- Model the anatomy and physiology of the human body
- Explain the ecology of living things
- Summarize complex biological issues using research articles

## **VET115: Animal Anatomy and Physiology 1**

Anatomy is the study of the structure of living things. Physiology is the study of the way body parts function—what they do and how they work. The material you'll learn in this course is the essential framework of what you'll need to know to become a veterinary technician. Understanding the anatomy and physiology of the animals in your care will help you care for the animals and enable you to communicate with veterinarians and other team members more effectively. In addition, the knowledge you gain will help you enhance your own skills and help you complete your expected responsibilities in a professionally and adequately.

By the end of this course, you'll be able to do the following:

- Explain the life cycle of a cell and the types of tissues
- Explain the function of each body system
- Explain the purpose of the nervous system and sense organs
- Analyze the functions of various glands and organs that are part of the endocrine system
- Analyze the structure and function of blood cells and the lymphatic system

## **VET116: Animal Anatomy and Physiology 2**

In this course, you'll continue your study of animal anatomy and physiology. You'll begin with immunity and defense, then learn about the cardiovascular, respiratory, digestive, and genitourinary systems in mammals. Finally, you'll learn about avian, amphibian, and reptilian physiology.

By the end of this course, you'll be able to do the following:

- Analyze the defense mechanism of a body and the development of immunity
- Illustrate the processes of the cardiovascular and respiratory systems
- Summarize the anatomical and physiological components in the maintenance systems of a body
- Categorize the functions of the genitourinary systems
- Compare the anatomy and physiology of avian creatures, reptiles, and amphibians

## **ENG100: English Composition**

This course teaches the skills and techniques of effectively developing, drafting, and revising college-level essays toward a specific purpose and audience: active reading, prewriting strategies, sentence and paragraph structure, thesis statements, varied patterns of development (such as illustration, comparison and contrast, and classification), critical reading toward revision of structure and organization, editing for standard written conventions, and use and documentation of outside sources. Students submit two prewriting assignments and three essays (process analysis, comparison and contrast, and argumentation).

By the end of this course, you'll be able to do the following:

- Use writing skills to construct well-written sentences and active reading skills to understand and analyze text
- Develop paragraphs using topic sentences, adequate detail, supporting evidence, and transitions
- Contrast the revising and editing steps of the writing process
- Distinguish between different patterns of development
- Write a process analysis essay using prewriting, drafting, revising, and editing skills
- Recognize how to determine the reliability of secondary sources and to give proper credit to sources referenced in an essay
- Write a comparison and contrast essay by using persuasive writing techniques to defend a claim
- Create a sound written argument using techniques of drafting and evaluating sources

## **VET106: Veterinary Office Management and Skill with People**

This course will introduce you to the various support staff positions within a veterinary practice. You'll discover how a veterinary practice operates in terms of bringing in clients, facility care, and maintenance, as well as recordkeeping and filing. You'll learn the art of communication between the staff and the clients, from improving speech and managing telephone calls to making appointments and greeting clients. You'll acquire skills for finding a job, including where to look for a job, creating a résumé, and preparing for an interview. Also presented in this course is information about personal growth, including the importance of continuing education, time and money management, as well as managing stress.



By the end of this course, you'll be able to do the following:

- Identify the profession of veterinary technology and the laws and regulations related to veterinary technology
- Explain best practices for veterinary practice management and the importance of interpersonal skills
- Analyze the various components associated with medical records and the management of medical records
- Analyze the important factors involved with occupational health and safety in veterinary hospitals
- Compare two veterinary management software through research

## **MAT102: Mathematical Applications**

This course will provide you with a foundation in basic mathematical operations. Topics covered include percentages, discounts, interest, present worth, sinking funds, installment buying, pricing, depreciation, investments, insurance, use of symbols and their applications, equations and formulas, and the importance of statistics.

By the end of this course, you'll be able to do the following:

- Analyze functions of whole numbers, fractions, decimals, and percents
- Show calculations involved in simple interest, compound interest, and time value of money
- Prepare various business math applications involving financial reports, installment buying, and depreciation
- Analyze various financial concepts related to taxes, insurance, financial investments, and basic business statistics

## **VET110: Medical Nursing for Veterinary Technicians**

Veterinary emergency care, first aid, wound and bandage management, dental prophylaxis, general nursing care, and sample collection and treatment techniques.

By the end of this course, you'll be able to do the following:

- Explain diagnostic sampling and therapeutic techniques for small and large animals
- Explain neonatal care and its impact on development, elements of medical nursing, and fluid therapy and calculations
- Analyze procedures and techniques that involve critical care situations, toxicology, and wounds
- Analyze dental clinical practices for veterinary dentistry
- Analyze CPR, fluid therapy, wound management, and veterinary periodontics

## **MAT140: Medical Mathematics**

This course is designed to assist you with your study of the various topics in this course. The textbooks for this course are Medical Dosage Calculations and Essential Calculations for Veterinary Nurses and Technicians. This course will refer primarily to those resources. This course contains additional information and sample problems that pertain to the topics in your lessons, as well as highlights of important points from your textbooks.

By the end of this course, you'll be able to do the following:

- Analyze the basic mathematical functions and the fundamentals of drug administration, dose, and labels

- Describe the measurement systems in medication calculations
- Explain dosage calculations and fluid therapy calculations

## **VET124: Pharmacology for Veterinary Technicians**

Veterinary refers to the science and art of treating and preventing animal diseases. Pharmacology is the science of drugs. You'll learn how to understand both.

The material you'll learn in this course will form the essential framework of understanding needed to work with veterinary pharmacology. Building any sort of framework is hard work, but the effort it takes to build a strong framework will pay off later. Understanding the veterinary pharmacology needs of the animals in your care will help you care for them better and enable you to communicate with veterinarians and other veterinary technicians more effectively.

By the end of this course, you'll be able to do the following:

- Explain the fundamentals of the drug administration process
- Categorize the effects of drugs on the nervous, respiratory, urinary, cardiovascular, and GI systems
- Point out the diseases and medications associated with the endocrine, ophthalmic, and otic systems
- Distinguish the various constituents of anti-infective drugs, antiparasitic drugs, and the inflammation-controlling medication process
- Show the components of therapeutic replacement, immunologic, and inventory management in veterinary practices

## **VET131: Clinical Externship 1**

The main purpose of the clinical externship is to provide you with an opportunity to avail the skills and knowledge necessary to pursue a successful career of a veterinary technician. You're required to practice the skills under a licensed veterinary technician or a professional. The externship in the context covers a minimum of 200 hours adhering to a full-fledged clinical experience. The externship requires you to be a part of the working veterinary team and practice the skills and knowledge acquired from the prior courses.

By the end of this course, you'll be able to do the following:

- Demonstrate clinical skills by completing an externship

## **VET201: Clinical Pathology 1**

The knowledge that you obtain from this course will serve you well in a career in veterinary medicine.

You may find some of the material in this course difficult. This study guide is intended to help you through the material so that you understand it. Your course, which is based on the textbook *Laboratory Procedures for Veterinary Technicians, Sixth Edition*, is divided into four lessons. Each lesson includes several assignments that cover a specific area of clinical pathology.

By the end of this course, you'll be able to do the following:

- Categorize the importance of safety precautions, vital equipment, and quality assurance in a laboratory
- Analyze the types of examination procedures and techniques used for the assessment of urinalysis

- Differentiate between the characteristics of bacteria and the forms procedures used to assess culture media
- Analyze different procedures for collecting cytology samples and smears as well as their evaluation methods

## **VET202: Clinical Pathology 2**

This course is designed to assist you with the various veterinary technician topics related to clinical laboratory procedures and equipment. You should review your anatomy and physiology course material on the cardiovascular, lymphatic, and urinary systems before you proceed further. In this course, you'll learn the fundamentals of clinical laboratory procedures and equipment for hematology and hemostasis, clinical chemistry, and immunology. Principles and procedures related to hematology and hemostasis, clinical chemistry, and immunology representing the important function of the veterinary technician to provide accurate and reliable clinical laboratory test results to the veterinarian will be stressed. It's vital that you understand the theories behind the various tests you'll be performing, as well as methods to ensure accuracy of results. Throughout this course, the importance of properly performing diagnostic procedures will be stressed. You'll also become familiar with the equipment and techniques for performing associated diagnostic tests.

By the end of this course, you'll be able to do the following:

- Analyze the hematological properties and the procedures for assessing any blood-related abnormalities
- Point out the various methods used to determine the disorders in organs through hematological assays
- Categorize mechanisms of the immune system and the tests performed to determine any immunological disorders

## **HUM102: Art Appreciation**

In this course, you'll gain an understanding of artistic media, historical periods and artistic movements, the roles of the artist and the viewer, and the principles of art criticism.

By the end of this course, you'll be able to do the following:

- Define the language, visual elements, and principles of design of art
- Identify two-dimensional media
- Identify three-dimensional media
- Explain the evolution of art from ancient Mediterranean cultures through eighteenth century Europe
- Identify features and popular examples of art throughout the history of African, Asian, Pacific, and American cultures
- Compare the genres of the Modern and Postmodern eras of art from around the world

## **HUM104: Music Appreciation**

In this course, you'll understand how to appreciate music and learn about the roles of the composer and the listener, the principles of music theory and instrumentation, musically significant historical periods, and varying styles of music.

By the end of this course, you'll be able to do the following:

- Identify the building blocks of music a composer can use to create a piece, such as rhythm, melody, harmony, texture, form, and timbre

- Differentiate between the music of the baroque era and the musical styles of previous time periods
- Recognize the major characteristics of classical music, including form, melody, and instrumentation
- Describe the musical trends and innovations that occurred during the romantic era
- Relate musical styles of the early twentieth century to comparable movements in art and literature
- Explain the evolution of American popular music in the twentieth century
- Recognize the influence of world music on modern western composition
- Write an essay researching composers' influence in their respective genres

## **VET212: Anesthesia for Veterinary Technicians**

This course is based on the textbook, *Anesthesia and Analgesia for Veterinary Technicians, Fifth Edition*, by John Thomas and Phillip Lerche. It's divided into four lessons; each lesson includes several assignments that cover a specific area of anesthesia.

By the end of this course, you'll be able to do the following:

- Analyze the importance of administering anesthesia to animals based on various assessment methods
- Point out the types and techniques used to administer analgesic agents and adjuncts
- Categorize the methods of preparing and monitoring patients under anesthesia
- Distinguish between the challenges and procedures of administering anesthesia to the various types of animals

## **VET214: Surgical Nursing**

Of the various responsibilities veterinary technicians have, assisting with surgery may be the most exciting and challenging. Competence as a surgical assistant requires a thorough understanding of medical principles, an eye for detail, and the ability to stay focused. You'll use much of your acquired physiological, anatomic, and medical knowledge.

As a veterinary technician, you'll need to understand the importance of asepsis, or sterility, in preparing the surgical environment and equipment. Additionally, you'll need to know how to prepare patients for surgery, monitor them while they're under anesthesia, and recover them from surgery. Your understanding of accurate record keeping methods as they apply to patient medical records, controlled-substance use, anesthetic monitoring, and patient aftercare will be equally important. Your skills and knowledge of surgical nursing will be an integral part of your future as a veterinary technician.

By the end of this course, you'll be able to do the following:

- Analyze the roles, responsibilities, and processes followed by a technician before a surgery
- Summarize the various responsibilities of a veterinary technician during a surgery
- Summarize the duties of a technician in educating clients and managing pain of recovering patients

## **VET222: Clinical Parasitology for Veterinary Technicians**

Knowledge of veterinary parasitology is a basic requirement for anyone in the veterinary medical field. Management of parasites is important, not only for pet health, but is also financially important both for veterinary practices and for

producers of livestock. In addition, parasitology is of public health importance as many parasites can be transferred from animal to human. This course will provide an introduction to the language of parasitology, laboratory methods used to test for parasites, and common parasites of domestic animals and their life cycles. The goal is to enable you to become familiar with scientific names, families of parasites and their importance in veterinary medicine. As you work in the field of veterinary medicine you'll use many of these lab techniques to diagnose parasites and then use your parasitology knowledge to educate pet and livestock owners on management and potential health hazards associated with these parasites.

By the end of this course, you'll be able to do the following:

- Analyze the domain of veterinary parasitology and the tests that aid in detecting parasites
- Categorize the types of protozoal parasites and their characteristics
- Identify the types of nematodes, their features, and the related terminologies
- Distinguish between the types of cestodes and the ways they affect animals and humans
- Differentiate between the various ectoparasites and the ways they affect animals and humans
- Answer questions covering a wide range of clinical parasitology issues

## **VET220: Radiography for Veterinary Technicians**

X-ray radiation can be a useful tool in veterinary medicine for the diagnosis of injury and disease. Radiation can also be dangerous if you're not properly trained in its use. This course is designed to familiarize you with the properties of radiation and the dangers it can pose if not handled properly, and to help train you to use radiation as an effective diagnostic tool in veterinary medicine.

By the end of this course, you'll be able to do the following:

- Describe the properties, equipments, and precautions taken to process the production of x-rays
- Analyze the procedural and technical aspects to produce radiographic images
- Categorize the techniques and equipment checks required to produce better quality radiography images
- Point out the various positionings, views, and precautions taken to perform radiography on small animals
- Analyze the procedures and precautions taken to administer radiography on large, avian, and exotic animals

## **VET224: Small and Large Animal Medicine**

In this course, you'll learn about basic disease processes as they relate to various body systems. You'll also study transmission diagnosis, treatment, and the prevention of diseases that affect domestic animals. Finally, you'll learn about healing processes, immunological responses, vaccination types and techniques, zoonosis, and preventive measures.

By the end of this course, you'll be able to do the following:

- Explain safety responsibilities and preventive health programs
- Explain the veterinary technician practice model and small animal diseases
- Analyze common diseases and conditions of horses, ruminants, swine, and camelids
- Describe necropsy procedures and the elements involved in veterinary oncology
- Analyze various diseases in veterinary medicine

## **SSC130: Essentials of Psychology**

This course covers biology and behavior, consciousness, memory, thought and language, intelligence, personality and gender, stress, and community influences.

By the end of this course, you'll be able to do the following:

- Describe the science of psychology, basic structure and function of the human nervous system, and basic structure and function of the sensory system
- Explain various states of consciousness, learning theories, and thought processes and development
- Summarize the nature of human motivation and development, the human development cycle, and approaches to understanding and assessing personality
- Prepare an essay on the topic of conditioning, memory, or motivation and emotion
- Recognize psychological disorders and available treatments
- Explain social psychology as it relates to attitudes, influences, behaviors, and stress
- Use critical thinking skills to determine the likely causes of behaviors of individuals and groups discussed in case studies

## **VET225: Animal Nutrition, Reproduction, Genetics, and Aging**

This course introduces the science of nutrition and its application to feeding practices of domestic, farm, and companion animals; basic nutrients and nutritional requirements of individual species, approximate food analysis, interpretation of food and feed labels, and types of animal foods; physiology of reproduction, aging, and genetics.

By the end of this course, you'll be able to do the following:

- Explain various elements of nutrition and healthy feeding protocols
- Compare nutrition and special considerations when feeding various types of large animals
- Explain reproduction and breeding in various types of animals
- Analyze geriatric and hospice care and how pet loss impacts the human-animal bond
- Analyze animal nutrition, animal reproduction, end-of-life support, and client grief support

## **VET228: Laboratory Animal Medicine and Nursing**

This course is based on the textbook *Laboratory Animal and Exotic Pet Medicine: Principles and Procedures, Second Edition*. It's divided into three lessons; each lesson includes several sections that cover a specific area of laboratory animal science.

Laboratory animal medicine is a diverse field that requires a broad knowledge of a large number of species. You'll learn about many of the laboratory and exotic animal species in this course.

By the end of this course, you'll be able to do the following:

- Point out the facilities, legalities, and equipments required to run a biomedical research facility
- Analyze the unique features of hamsters, gerbils, guinea pigs, and ferrets for laboratory research

- Compare the shared similarities between nonhuman primates and humans, features of rabbits and nontraditional animals
- Analyze the feature of unique animals for biomedical research and the dangers associated with it

## **VET229: Veterinary Technician National Examination Review**

This course provides a comprehensive review to assist you in preparation for state and national certifying examinations for the veterinary technician. You'll review basic science, clinical practices, diagnostics, and ethical concerns. The course covers birds, reptiles, laboratory animals, and large and small animal species.

By the end of this course, you'll be able to do the following:

- Analyze the pretest fundamentals necessary for VTNE
- Point out the plans and instructions needed to attempt the final examination and VTNE

**Note:** The titles of your learning materials may be different from those listed on your program outline. There is no need to call your instructor about these differences. While the titles of certain learning materials may differ, the educational content is the same. All learning materials are designed to give you the finest education in your field. If you need instructional assistance, however, be sure to call for help. We reserve the right to revise the program of study and the instructional materials and to substitute for the items of equipment offered.