# **VT-1120: INTRODUCTION TO VETERINARY TECHNOLOGY**

# **Cuyahoga Community College**

# Viewing: VT-1120 : Introduction to Veterinary Technology

Board of Trustees: January 2022

# Academic Term:

Fall 2022

Subject Code VT - Veterinary Technology

# Course Number:

1120

Title:

Introduction to Veterinary Technology

# **Catalog Description:**

Introduction to the profession of veterinary technology. Includes terminology with emphasis on word components, spelling, pronunciation, word analysis, common colloquialisms and abbreviations. Introduction to legal, moral, ethical status of animals in modern society. Discussion of profession, its legal ramifications and career paths open to graduate veterinary technicians. Introduction to common breeds and types of domestic animal species and related medical issues. Introduction to animal euthanasia and veterinary technician's role in that procedure. Introduction to medical math. Introduction to the metric system and how to convert units of measure amongst commonly used medical math systems.

Credit Hour(s):

2

Lecture Hour(s):

2

# **Requisites**

# Prerequisite and Corequisite

ENG-0995 Applied College Literacies, or appropriate score on English Placement Test to be eligible to enroll in ENG-1010 College Composition I.

# Outcomes

# Course Outcome(s):

Consider and weigh advantages and disadvantages of a career as a veterinary technician.

#### Objective(s):

- 1. Explain the moral, ethical and legal status of animals in current society and how this affects the profession of veterinary technology.
- 2. Summarize the changes in society that contribute to the current roles of animals.
- 3. Describe the various influences on decision-making (morals, ethics, laws) and their counterparts in the animal-health profession.

#### Course Outcome(s):

Consider one's interest and aptitude for a career as a veterinary technician.

# Objective(s):

- 1. Outline characteristics of professional behavior for veterinary technicians and students.
- 2. Outline the "nursing" or practice model for veterinary technicians.
- 3. Explain the basis of the human-animal bond, and its importance in the veterinary medical professions.

#### Course Outcome(s):

Converse fluently and comfortably with veterinary professionals using medical terminology.

#### Objective(s):

1. List and define the five basic word components used in the construction of medical terms: prefix, suffix, word root, combining form and combining vowel.

2. Define the meaning of commonly used veterinary medical terms by analyzing the component parts of a word.

3. Explain rules for proper veterinary medical word building, pronunciation, and spelling.

4. Identify, define, spell and pronounce prefixes, suffixes, verb and adjective-based word roots and combining forms, word roots and combining forms pertaining to body substances, chemicals and fluids, colors and numbers.

5. Identify, define, spell and pronounce veterinary medical terms pertaining to the body and its structure.

6. Identify, define, spell, and pronounce word roots, combining forms and veterinary medical terms pertaining to the musculoskeletal, integumentary, cardiovascular, lymphatic, respiratory, gastrointestinal, genitourinary, endocrine, nervous and immune systems and the special senses.

7. Relate the unique terminology necessary to communicate effectively with the client or owner of a horse, dog, cat, or other animal patient.

#### Course Outcome(s):

Understand that a veterinary technician must make a series of informed decisions that demonstrate consistent professional behavior as a veterinary technician inside and outside of the job environment.

#### Objective(s):

1. Explain the duties and responsibilities of a graduate veterinary technician under applicable state (OH) and federal laws.

#### Course Outcome(s):

Understand the credentialing process as a registered veterinary technician (RVT) in Ohio.

#### Objective(s):

- 1. Outline the basis, membership and duties of a typical State Veterinary Medical Licensing Board (OH example) and its effects on the veterinary profession.
- 2. Explain the duties and responsibilities of a graduate veterinary technician under applicable state (OH) and federal laws.
- 3. Discuss the role of professional organizations in veterinary technology and animal care.

#### Course Outcome(s):

Select a career path in veterinary technology that is most compatible with the individual student's interests and strengths.

#### Objective(s):

- 1. List multiple career paths available to a credentialed veterinary technician.
- 2. Discuss the various practice facilities and characteristics for different types of animal-health care.
- 3. Identify at least three common breeds for each of the following animal species: dogs, cats, horses, cattle, sheep, goats, pigs, and birds.
- 4. Explain common breed-related health concerns encountered by veterinary technicians in practice.
- 5. List at least two permanent and two temporary identification (ID) methods for each common animal species.

#### Course Outcome(s):

Learn to handle cases involving euthanasia with understanding and empathy, and develop a healthy coping mechanism for dealing with euthanasia and its inevitable place in veterinary medicine.

#### Objective(s):

- 1. Define the term animal euthanasia and list reasons for the procedure.
- 2. List the most commonly encountered acceptable methods of euthanasia for each common species as well as one unacceptable method for each.
- 3. Explain the veterinary technician's role in euthanasia.
- 4. Discuss the environment of euthanasia, including its effects on the animal, client, and veterinary staff.
- 5. Define the term Compassion Fatigue and list at least three healthy coping mechanisms for the veterinary technician.

#### Course Outcome(s):

Demonstrate how to perform basic metric conversion.

#### **Essential Learning Outcome Mapping:**

Quantitative Reasoning: Analyze problems, including real-world scenarios, through the application of mathematical and numerical concepts and skills, including the interpretation of data, tables, charts, or graphs.

#### Objective(s):

- 1. Convert International System of Units (SI) SI and English measurements of length, volume, and weight.
- 2. Identify common medical notations and abbreviations related to the metric system, Apothecary, SI, and English units of measure.

#### Course Outcome(s):

Calculate and interpret dosages for medications in various species prescribed by veterinarians.

#### **Essential Learning Outcome Mapping:**

Quantitative Reasoning: Analyze problems, including real-world scenarios, through the application of mathematical and numerical concepts and skills, including the interpretation of data, tables, charts, or graphs.

#### Objective(s):

- 1. Calculate dosages from percentage strength solutions.
- 2. Calculate the amount or volume of drug needed given a medication order and the dose and amount of medication on hand.
- 3. Calculate a dosage based on a schedule (mg/Kg, mg/Lb).
- 4. Identify correct dose and schedule for medications administered by veterinarians.
- 5. Convert from one unit to another within the metric system.

#### Methods of Evaluation:

- 1. Quizzes
- 2. Written exercises as assigned.
- 3. Unit examinations
- 4. Final examinations
- 5. Class participation
- 6. Self-study modules as assigned
- 7. Role-playing or other experiential exercises as assigned
- 8. Discussion Boards as assigned

#### **Course Content Outline:**

- 1. Introduction to veterinary medical terminology
  - a. Use of word elements/components
    - i. Prefixes
    - ii. Suffixes
    - iii. Roots
    - iv. Combining forms
    - v. Combining vowels
    - b. Rules for word analysis and use
      - i. Identifying word components
      - ii. Combining word components
      - iii. Pronunciation
      - iv. Formation of plurals
    - c. Identification, definition and pronunciation of prefixes
    - d. Identification, definition and pronunciation of suffixes
    - e. Identification, definition and pronunciation of word roots/combining forms
      - i. External anatomy
      - ii. Internal anatomy
      - iii. Verb-based
      - iv. Adjective-based
      - v. Colors
      - vi. Body substances and chemicals
      - vii. Body fluids
    - f. Identification, definition and pronunciation of terms relating to the body and its structure.

- i. Basic structure of the organism
- ii. Tissues
- iii. Directions and planes
- g. Identification, definition and pronunciation of terms relating to body systems
  - i. Integumentary
  - ii. Musculoskeletal
  - iii. Cardiovascular
  - iv. Lymphatic
  - v. Respiratory
  - vi. Gastrointestinal
  - vii. Genitourinary
  - viii. Endocrine
  - ix. Nervous
  - x. Special senses
  - xi. Immune
- 2. Basis of behavioral decision-making: individual morals; professional ethical codes; laws
- 3. Legal status of animals in society
  - a. History of rights movements in society: women, children, minorities
  - b. Cases and opinions
- 4. Professionalism/ professional behavior
  - a. Ethical code: NAVTA
  - b. Putting NAVTA into practice as a VT student
  - c. Appearance: professionalism and safety considerations
    - i. Uniform or dress
    - ii. Hands or nails
    - iii. Jewelry, hair
  - d. Professional behavior in the workplace
  - e. Professional behavior outside the workplace
  - f. Communications for the professional
  - g. Professional organizations and their impact on veterinary technicians
- 5. Model (OH) Veterinary Medical Licensing Board
  - a. Formation and legal basis
  - b. Membership
  - c. Duties as required by Model (OH) Practice Act
  - d. VCPR: Veterinary- Client- Patient- Relationship
  - e. Disciplinary functions
- 6. Credentialed Veterinary Technicians under the law
  - a. Requirements for credentialing veterinary technicians
  - b. Duties of credentialed veterinary technicians
  - c. Restrictions of credentialed veterinary technicians
  - d. Animal aides and other defined roles
  - e. Disciplinary actions
- 7. Other laws affecting veterinary technicians
  - a. Drugs: DEA and State (OH) Pharmacy Board
  - b. Occupational Health: OSHA
  - c. Practice-area specific laws: Animal Welfare Act, State Racing Commissions etc.
- 8. "Nursing" or Practice Model for Veterinary Technicians: Steps and restrictions
- 9. Veterinary Technician Career Paths and typical facilities
  - a. Companion animal/ referral/ emergency
  - b. Equine hospital/ ambulatory unit
  - c. Food animal hospital/ ambulatory unit
  - d. Animal shelter/ population control facility
  - e. Laboratory animal facility
  - f. Zoological park/ wildlife facility
- 10. Common domestic-animal breeds and their associated medical issues
  - a. Dogs
  - b. Cats
  - c. Horses

- d. Cattle- dairy and beef
- e. Pigs
- f. Sheep and goats
- q. Poultry and pet birds
- 11. Identification (ID) methods for domestic animals
  - a. Permanent
  - b. Temporary
- 12. Euthanasia
  - a. Definition
  - b. Reasons
  - c. Approved, recommended methods for various species and animal uses
  - d. Non-approved methods
  - e. Veterinary technician's role in euthanasia
  - f. Grief and effects on clients, veterinary staff
  - g. Compassion fatigue and coping strategies
- 13. Basic Metric conversion
  - a. Definition
  - b. Reasons
  - c. Use in veterinary medicine
  - d. Common units used in veterinary medicine
- 14. Calculation of Drug dosages
  - a. Convert between units
  - b. Oral
  - c. Injectable
  - d. Body weight conversion
  - e. Calculation

#### Resources

Studdert, Virginia et. al. Saunder's Comprehensive Veterinary Dictionary. 5th ed. Philadelphia: Saunders Ltd., 2021.

Christenson, Dawn. Veterinary Medical Terminology. 3rd ed. Philadelphia: W. B> Saunders, 2019.

Dorland, W. A. Dorland's Illustrated Medical Dictionary. 33rd ed. Philadelphia: W. B. Saunders, 2019.

McBride, Douglas. Learning Veterinary Terminology. 2nd ed. St. Louis: Mosby, 2001.

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Thomas, Clayton. Taber's Cyclopedic Medical Dictionary. 23rd ed. Philadelphia: F. A. Davis, 2017.

Favre, David. Animal Law: Welfare, Interests and Rights. 3rd ed. NY: Wolters Kluwer Law and Business, 2019.

Rollin, Bernard. An Introduction to Veterinary Medical Ethics. 2nd ed. Ames, IA: Iowa State University Press, 2013.

Rollin, Bernard E. A New Basis for Animal Ethics: Telos and Common Sense. 1st ed. Columbia, MO: University of Missouri Press, 2019.

Taibo, Angela. Veterinary Medical Terminology Guide and Workbook. 2nd ed. Hoboken, NJ: John Wiley and Sons, Inc., 2019.

Waisman, Frasch and Wagman eds. Animal Law. 6th ed. Durham NC: Carolina Academic Press, 2019.

Wilson, James F. Law and Ethics of the Veterinary Profession. Yardley, PA: Priority Press Ltd., 1990.

#### **Resources Other**

Proceedings and newsletters of American Veterinary Law Association (AVMLA); avmla.org; 1995-present US and OH Revised Codes and Rules; multiple chapters.

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