

## Course Number and Title: VET 220 Laboratory & Exotic Animal Care & Management

**Campus Location:**

Georgetown

**Effective Date:**

2022-51

**Prerequisite:**

VET 140

**Co-Requisites:**

none

**Course Credits and Hours:**

3.00 credits

2.00 lecture hours/week

4.00 lab hours/week

**Course Description:**

This course provides an overview into the study of laboratory and exotic animals. Topics include husbandry, nutritional requirements, common diseases, and nursing care. Laboratory sessions provide hands-on training in restraint, drug administration, sample collection, and other nursing techniques.

**Required Text(s):**

Obtain current textbook information by viewing the [campus bookstore - https://www.dtcc.edu/bookstores](https://www.dtcc.edu/bookstores) online or visit a campus bookstore. Check your course schedule for the course number and section.

**Additional Materials:**

Stethoscope, pen light, scrubs, closed toe, non-skid shoes, digital thermometer, pocket notebook, watch with a second hand and pocket formulary (optional).

**Schedule Type:**

Classroom Course

Video Conferencing

Web Conferencing

Hybrid Course

Online Course

**Disclaimer:**

Students are required to travel to off-campus sites for some classes. Students are required to participate in daily care and feeding of mice or rats housed at the Georgetown campus. These duties are performed outside of regular class time, including weekends. Students with known allergies and/or those that are immunocompromised are responsible for seeking medical advice as to whether they should participate in the animal handling laboratories in this course. Humane methods of euthanasia in poultry are demonstrated by the qualified presenter. Students may opt to be excused from this demonstration; however, students are expected to assist with necropsy of a non-preserved chicken as required by AVMA accreditation. See the instructor for more details.

**Core Course Performance Objectives (CCPOs):**

1. Identify common species, breeds, and/or types of laboratory and exotic animals. (CCC 2; PGC 1)
2. Provide client education on the proper husbandry of exotic animals, including nutritional needs, environment, reproduction, and overall care of exotic animals. (CCC 1, 3, 5; PGC 1, 3)
3. Explain basic principles of animal research. (CCC 5; PGC 1)
4. Discuss common infectious and non-infectious diseases in laboratory and exotic animals. (CCC 6 ; PGC 1)
5. Perform basic care procedures, including feeding, watering, environment sanitation/cleaning, and sexing for mice, rats, and rabbits. (CCC 2, 3, 4; PGC 2)
6. Perform a variety of nursing skills, including restraint, nail trimming, administration of medication, and venipuncture on common laboratory and exotic animal species. (CCC 6; PGC 2)

See Core Curriculum Competencies and Program Graduate Competencies at the end of the syllabus. CCPOs are linked to every competency they develop.

**Measurable Performance Objectives (MPOs):**

Upon completion of this course, the student will:

1. Identify common species, breeds, and/or types of laboratory and exotic animals.
  1. List characteristics to aid in the identification of laboratory and exotic animals.
  2. Differentiate newborn, juvenile, and adult male and female.
  3. Describe various permanent and temporary identification methods used in laboratory and exotic animal species.
2. Provide client education on the proper husbandry of exotic animals, including nutritional needs, environment, reproduction, and overall care of exotic animals.
  1. Create a client education brochure containing information related to species husbandry, nutritional, and basic care requirements.
  2. Research State of Delaware regulations on owning exotic animal species as pets.
  3. Assist a client in the selection of a proper exotic animal pet.
  4. Discuss and identify common health problems of laboratory and exotic animals related to improper husbandry and stress.
3. Explain basic principles of animal research.
  1. Describe federal, state, and local regulations involving laboratory and exotic animals.
  2. Discuss and apply United States Department of Agriculture (USDA) and Animal Welfare Act (AWA) rules and regulations, including housing, environment, basic care, and transportation requirements.
  3. Discuss the principles of the 3Rs (replacement, reduction, and refinement) of the humane use of animals in scientific research.
  4. Identify alternatives to the use of animals in scientific research using the Animal Welfare Information Center website.
  5. Complete animal use protocols and animal records/logs as required by the USDA and/or AWA.
  6. Recognize the hazards involved in working with laboratory and/or exotic animals, and conduct steps necessary to avoid injury or zoonotic disease transmission.
  7. Describe the principles of cleaning, disinfecting, and sterilization.
  8. Define the basic concepts of gnotobiotics, including specific pathogen free animals, barrier maintained colonies, isolators, and clean rooms.
  9. Compare and contrast animal rights and animal welfare.
  10. Discuss the concept of population medicine as it applies to colony housed animals.
  11. Research and discuss American Veterinary Medical Association (AVMA) and AWA approved methods of euthanasia for laboratory animals.
4. Discuss common infectious and non-infectious diseases in laboratory and exotic animals.
  1. Describe common microbial and parasitic diseases of laboratory and exotic animals.
  2. Identify common signs of illness, stress, and diseases of laboratory and exotic animals.
  3. Describe preventative and control measures to minimize the transmission of disease.
  4. Discuss common nutritional deficiencies and the effect on the animal.
  5. Discuss the relationship of environment, stress, and disease.
  6. Describe common behavior problems related to stress and/or improper care.
  7. Create an environmental enrichment proposal using USDA and AWA guidelines.
  8. Discuss laboratory and exotic animal zoonotic diseases and modes of transmission.
5. Perform basic care procedures, including feeding, watering, and environment sanitation/cleaning for mice, rats, and rabbits.
  1. Perform basic care procedures for mice, rats, and rabbits.
  2. Compare a variety of methods of feeding and watering confined animals.
  3. Discuss common habitats and environmental requirements for common laboratory and exotic animals.
  4. Discuss the unique nutritional requirements for common laboratory and exotic animals.
  5. Identify diseases and conditions related to poor husbandry practices.
6. Perform a variety of nursing skills, including restraint, nail trimming, administration of medication, and venipuncture on common laboratory and exotic animal species.
  1. Restrain a variety of laboratory and exotic animals for examination and/or medical treatment.
  2. Perform a physical examination on birds, mice, rats, and rabbits.
  3. Trim nails in exotic species kept as pets.
  4. Perform basic grooming, including beak, wing, and nail clipping in birds.
  5. Perform oral dosing in mice, rats, and rabbits.
  6. Collect blood samples from mice, rats, and rabbits.
  7. Demonstrate subcutaneous and intraperitoneal injections in rats and mice.
  8. Demonstrate subcutaneous injections in rabbits.
  9. Inspect, clean, and medicate ears of rabbits.
  10. Discuss the importance of regular oral examination in rabbits to identify common dental problems related to elodont dentition, including malocclusion, fractures of the incisors, tooth root abscesses, and osteitis.
  11. Perform necropsy on a non-preserved rodent.

**Evaluation Criteria/Policies:**

The grade will be determined using the Delaware Tech grading system:

90	-	100	=	A
80	-	89	=	B
70	-	79	=	C
0	-	69	=	F

Students should refer to the [Student Handbook - https://www.dtcc.edu/handbook](https://www.dtcc.edu/handbook) for information on the Academic Standing Policy, the Academic Integrity Policy, Student Rights and Responsibilities, and other policies relevant to their academic progress.

**Final Course Grade:**

Calculated using the following weighted average

Evaluation Measure	Percentage of final grade
Summative: Examinations	40%
Summative: Client Education Project	20%
Summative: Environmental Enrichment Project	20%
Formative: Quizzes	10%
Formative: Discussion Boards	10%
Summative: Clinical Skill Assessment	Pass/Fail
TOTAL	100%

**Core Curriculum Competencies (CCCs are the competencies every graduate will develop):**

1. Apply clear and effective communication skills.
2. Use critical thinking to solve problems.
3. Collaborate to achieve a common goal.
4. Demonstrate professional and ethical conduct.
5. Use information literacy for effective vocational and/or academic research.
6. Apply quantitative reasoning and/or scientific inquiry to solve practical problems.

**Program Graduate Competencies (PGCs are the competencies every graduate will develop specific to his or her major):**

1. Apply theoretical information that leads to appropriate action in the application or delivery of veterinary nursing procedures.
2. Competently perform a full range of veterinary nursing procedures used in small and large animal medicine.
3. Practice behaviors that are consistent with the Veterinary Technology Code of Ethics and employer expectations/requirements.

**Disabilities Support Statement:**

The College is committed to providing reasonable accommodations for students with disabilities. Students are encouraged to schedule an appointment with the campus Disabilities Support Counselor to request an accommodation needed due to a disability. A listing of campus Disabilities Support Counselors and contact information can be found at the [disabilities services - https://www.dtcc.edu/disabilitysupport](https://www.dtcc.edu/disabilitysupport) web page or visit the campus Advising Center.