



## **Course Description**

### **ATE2671C | Lab Animal Medicine | 2.00 credits**

This foundation course provides instruction on laboratory animal care. Students will learn the technical aspects of laboratory animal care, including restraint and handling, common diseases and nutrition. The animals studied include rabbits, rats, mice, guinea pigs, hamsters and primates.

### **Course Competencies:**

**Competency 1:** The student will demonstrate an understanding of the concept of a laboratory animal by:

1. Citing the primary reasons animals are used in research
2. Identifying examples of research protocols and the purpose of good record keeping
3. Explaining the concept of animal models for research
4. Discussing the reasons animals are used for projects and the processes for choosing the animal

**Competency 2:** The student will demonstrate an understanding of the role of animals in medical science by:

1. Citing how animal research has helped humankind in the discovery and control of human diseases, the utilization of vaccines, blood transfusions, nutrition, and surgical procedures
2. Defining the antibody production mechanism, including monoclonal antibodies, and their use in human medicine

**Competency 3:** The student will demonstrate an understanding of the philosophical basis for the use of animals in medical research by:

1. Differentiating between animal welfare and animal rights
2. Explaining alternative methods of animal use in research
3. Identifying the number and species of animals used annually in research facilities across the United States
4. Discussing the AVMA position in the use of animals in research
5. Explaining the animal welfare act and how it is enforced
6. Differentiating between animal use and animal abuse
7. Discussing the animal care and use committees and their scope and power

**Competency 4:** The student will demonstrate an understanding of the role of the veterinary technician in the research team by:

1. Defining the duties of the lab animal tech
2. Describing the husbandry guidelines
3. Analyzing the importance of maintaining accurate and detailed records
4. Describing approved methods of euthanasia for laboratory animals

**Competency 5:** The students will perform basic procedures on various species by:

1. Demonstrating proper restraint for the mouse, rat and rabbit
2. Performing subcutaneous injection on mouse/rat, rabbit
3. Identifying intraperitoneal (mouse/rat) as a group
4. Collecting a blood sample intravenously on mice/rats and rabbits as a group
5. Performing oral dosing (mouse/rat) group

### **Learning Outcomes:**

- Communicate effectively using listening, speaking, reading, and writing skills
- Demonstrate knowledge of ethical thinking and its application to issues in society
- Describe how natural systems function and recognize the impact of humans on the environment