

# ANIMAL TECHNICIAN ACADEMY

## PROGRAM INFORMATION

### **Kalamazoo Valley Community College**

Career Academies Administrative Office

M-TEC at The Groves Campus

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## **INDUSTRY OVERVIEW**

**SALARY RANGE:** Entry level wages: \$14,000 to \$19,000 per year  
Experienced animal technician: \$17,000 to \$31,000 per year

**PERSONAL INTERESTS:** An animal technician must enjoy working with animals and believe in the humane and ethical care and use of animals. Detail oriented, observation skills, perform physically demanding work, and perform routine, repetitive work.

**WORK ENVIRONMENT:** In a laboratory environment at biotechnology firms, laboratory research, or other animal caretaking facilities.

## **THE LABORATORY RESEARCH INDUSTRY**

Many research companies in our area provide comprehensive research to bring safer, healthier products to the world. Research has been critical to understanding the fundamental processes of human biology that are so integral to modern medicine. The caretaking of animals is therefore an indispensable part of biomedical and agricultural research. Ethical practice and high standards of animal care are essential.

## **WORKING CONDITIONS**

Since animals constantly need to be fed, watered, and exercised, and to have their living spaces cleaned, duties are sometimes repetitious. Animal caretakers should have the ability to monitor, restrain, handle, and care for laboratory animals. They must be able to lift animals, feed, or supplies that weigh up to 50 pounds or more.

Most animal caretaker positions are full-time, 40 hours per week. Since animals need to be cared for every day, many positions require some weekend, evening or overtime hours. Part-time work is often available in this position.

## **TRAINING AND OTHER QUALIFICATIONS**

On-the-job training is the most common way animal technicians and research workers learn their work; however, employers generally prefer to hire people who have experience with animals.

## **JOB OUTLOOK**

Laboratory research industry leaders in Kalamazoo shared a continuing demand for qualified, knowledgeable employees who are ready to excel in the laboratory animal caretaking field.

## **EARNINGS**

Animal technicians earned between \$9.00 and \$15.00 per hour. The bottom 10 percent earned less than \$8.79.

## **RELATED OCCUPATIONS**

Kennels, animal shelters, animal hospitals, pet stores, stables, veterinary facilities, laboratories, and zoological parks all house animals and employ animal caretakers or animal technicians. Job titles and duties vary by employment setting.

## **ANIMAL TECHNICIAN ACADEMY INFORMATION**

The Animal Technician Academy is an intensive training program that requires a full-time commitment for 6 weeks. The Animal Tech Academy will be held Tuesday through Friday 8 a.m. to 4 p.m. at KVCC's Groves Campus, 7107 Elm Valley Drive, Kalamazoo, MI. The laboratory training will be held at Western Michigan University's Kalamazoo campus.

Kalamazoo Valley Community College's Animal Technician Academy introduces students to animal caretaking in a research environment through classroom discussion and hands-on experience with live animals (rats) in a laboratory environment. Academy students gain a basic knowledge in all aspects of laboratory animal caretaking, which includes regulatory agencies, the history and process of research, animal observation, animal health and behavior, signs of disease, sanitation/disinfection, laboratory math skills, and veterinary medical terminology. In addition, students gain skills in communication, critical thinking, ethics, science and technology, job search, and employability.

## **SUCCESSFUL COMPLETION OF THE PROGRAM**

Students completing the training with demonstrated competency as determined by the laboratory competency checklist, written analysis, role playing, and on-site tour experiences will receive an Animal Technician Academy Certificate of Completion from KVCC. Activities conducted in the classroom and in the WMU laboratory will be assessed for accuracy through hands-on demonstration and written analysis. A skill assessment checklist will be used to evaluate demonstrated competency. Attendance and participation, worksheets exercises, classroom quizzes and testing.

## **COST OF THE PROGRAM**

The cost of this intensive, non-credit program is \$900. The registration fee includes all materials, supplies, books, and equipment. In addition, each student will receive a laboratory coat for the hands-on practice of handling live animals in the WMU laboratory facility.

## **APPLICATION PROCESS**

Applications are available online at [www.kvcc.edu/training](http://www.kvcc.edu/training) or for pick up at the M-TEC, located at 7107 Elm Valley Drive in Kalamazoo, MI. Candidates applying for admission to this academy will be asked to demonstrate the background, and capabilities employers require. Each student will be selected for the training based on suitability for laboratory animal care.

The Animal Technician Academy is designed to prepare students for a specific occupation. Unlike more generalized educational programs, this training opportunity is not likely to benefit students who do not intend to pursue employment as a laboratory animal caretaker or other animal care position.

A completed application does not guarantee admission into the Animal Technician Academy. Admission is based on assessment of each candidate and the candidate's ability to meet the requirements outlined in the application. There are several steps to the application process. KVCC will notify candidates by mail should their application be denied for any reason. Applications will be reviewed to determine whether the candidate meets the minimum criteria for consideration.

Twelve (12) seats are available in this Academy. Once an applicant is accepted into the program, they will be asked to provide a \$200 deposit to reserve their seat in the class. Full payment is due two weeks before the start of class. Students receiving financial assistance through a 3rd party agency will not be considered registered until written confirmation has been received from the 3rd party agency.

## **CRITERIA FOR ADMISSION**

Acceptance into the Laboratory Animal Technician Academy will be based on the evaluation of: The application with a one page essay regarding their desire to work as an animal technician; feedback from candidate supplied references; attendance at an orientation session; reading and math testing; and a personal interview.

## **PROGRAM CONTENT**

**LABORATORY RESEARCH CAREERS:** Students will learn about the field of laboratory animal science and how it will reward them with a very important and interesting career. Students will be exposed to many words, ideas, and concepts which the general public seldom uses or understands. Students will also learn how an animal technician's work has direct impact on experimental data.

**HISTORY AND PROCESS OF LABORATORY ANIMAL RESEARCH:** This training module will address questions about biomedical research and types of research. Students will discuss the history of research and learn how biomedical laboratory research has led to many medical and surgical advances.

**ETHICS IN THE INDUSTRY:** This module addresses the definition of ethics, which include the principles of honor and morality, accepted rules of conduct, and the moral principles of an individual. We will discuss the ethical concerns of laboratory research and summarize the three R's – Replacement, Refinement, and Reduction.

**GOOD LABORATORY PRACTICES:** Students will learn about how Good Laboratory Practice (GLP) embodies a set of principles that provide a framework within which laboratory studies are planned, performed, monitored, recorded, and reported. We will discuss how GLP helps assure regulatory authorities that the data submitted are a true reflection of the results obtained during the study and can therefore be relied upon when making risk/safety assessments.

**STANDARD OPERATING PROCEDURES IN A LAB ENVIRONMENT:** The SOP is written instruction on how to perform a repetitive activity. Students will learn how SOP is an integral part of a successful quality system.

**REGULATORY AGENCIES, ANIMAL WELFARE ACT, BIO-SECURITY, AND ZONOTIC RISKS:** Students will learn about the many organizations concerned with the care, use, and overall humane treatment of animals used in research, such as AALAS, AAALAC, NABR, AVMA, and ACLAM. There are many other organizations, both for and against animal use, which will become familiar through this training.

**IDENTIFICATION OF ANIMALS:** Students will learn the several acceptable methods for identifying animals, such as ear punching or notching, ear tags, and microchip transponders. Student will gain knowledge of veterinary medical terminology, commonly used prefixes, and suffixes, and medical terms. In addition we will discuss the proper handling and restraint techniques for various types of animals, identification of illness, and general caretaking responsibilities.

**ANIMAL NUTRITION AND HUSBANDRY PRACTICES:** In this module students will learn about the standard nutrition and caretaking of several species. In addition students will learn about animal husbandry practices and the application of scientific principles to animal breeding.

**SANITATION, DISINFECTION, DISEASE PREVENTION AND CONTROL, AND ANIMAL HEALTH:** We will learn practices that increase resistance and immunity, reduce stresses, and decrease exposure to infectious agents to help reduce disease. This training module addresses routine cleanliness, disinfection, and other sanitation practices to reduce the spread of diseases.

**CLINICAL, HEALTH, AND RESEARCH PROCEDURES:** Students will gain an understanding of clinical research methods and the systematic investigation to establish facts or collect information on a subject.

**ANIMAL WELFARE:** In this module we will discuss the animal welfare act to provide information for improved animal care and use in research, teaching, and exhibition.

**DATA COLLECTION, ANALYSIS, AND INTERPRETATION:** Students learn the proper methods for collecting data in a clinical research trial, analysis of the information obtained and how to properly interpret and document the information, such as species, breed, identification, gender, age, and where animal was acquired from.

**TERMINOLOGY, DOCUMENTATION AND RECORD MAINTENANCE:** Good record keeping is vital to the operation of a research facility. Students will learn the means of documentation ranging from treatments to medication administration. Student will gain knowledge of veterinary medical terminology, commonly used prefixes, and suffixes, and medical terms.

**OCCUPATIONAL HEALTH AND SAFETY:** Students will learn about how occupational health and safety has long been a priority in the research industry and the National Research Council. Students will gain an understanding of environmental health and safety practices in a laboratory environment.

**FORMULAS AND CALCULATIONS FOR LABORATORY MATH:** This training module addresses how to use fractions, decimals, and percentages in a laboratory environment. In addition, dosage calculations, dilutions and the computation of drip rates will be addressed.

**SPECIES ANATOMY AND PHYSIOLOGY, HABITATS, TAXONOMY, AND BEHAVIOR:** Anatomy is the study of a body's internal and external structure and the physical relationships between the body's constituent parts. Physiology is the study of how these parts work. Students will gain an understanding of the anatomy and physiology of various laboratory animals, the habitats to house these animals and how to identify certain behaviors.

**ROUTES OF ADMINISTRATION:** Student will gain an understanding of the different routes of administration and the various paths by which a drug, fluid, or other substance is brought into contact with the body.

**INTERPERSONAL RELATIONS, COMMUNICATION IN THE WORKPLACE, MENTORING:** Experts agree that good communication is one of the keys to being successful in today's competitive job market. Students will learn how to communicate with each other on a daily basis and how it is necessary to keep the work flowing in an orderly fashion, and to deal with work issues as they arise.

**JOB SEARCH AND EMPLOYABILITY SKILLS:** Student will progressively learn the skills necessary to conduct a job search, from filling out an application and creating a resume to job search, networking and interviewing skills. These training modules will be weaved progressively throughout the Academy to prepare students for employment at commencement.

**LABORATORY EXPERIENCE:** In partnership with Western Michigan University students of the Animal Technician Academy will have direct hands-on experience with live animals in a laboratory setting. Students will apply all of the techniques learned in the classroom in a real lab environment. Students will display proper restraint techniques for each species, differentiate between male and female species, use appropriate medical terminology, identify specific nutritional requirements for each species discussed, types of appropriate enrichment, accurate clinical observations of animals based on a defined clinical observation glossary, and many more animal technician practices.