SAN DIEGO MESA COLLEGE

ANIMAL HEALTH TECHNOLOGY PROGRAM

Information and Brochure

Job Title
Registered Veterinary Technician

Job Description
The Registered Veterinary Technician (RVT) is an integral member of the veterinary health care team, enjoying a wide range of job responsibilities. The RVT's responsibilities include: animal handling, restraint and examination, vaccinations, injections, and dispensing of medications, maintenance of clinic and owner records, client education, exposing and developing of radiographs, dental prophylaxis and extractions, application of casts and splints, first aid and emergency procedures, IV catheterization, fluid administration, obtaining blood samples through venipuncture, clinical laboratory testing, identification of internal and external parasites, surgical preparation, assisting, suturing, administration and monitoring anesthetics, preoperative and postoperative care.

Characteristics Required for Success in the Animal Health Technology Program
The successful AHT student:

- is a team player, flexible, mature, and emotionally stable
- is able to withstand strenuous physical activity
- is a lifelong learner
- is highly motivated and dedicated to his/her work
- is able to communicate tactfully with a diverse population of individuals
- is able to carefully follow verbal and written instruction
- possesses some animal experience, previous veterinary experience helpful, but not mandatory
- is able to accept constructive criticism and perform self evaluation activities, which result in personal and professional growth
- possesses reliable transportation

Employment Outlook
Exciting job opportunities are continuing to be numerous due to the diverse growth in the veterinary field, as well as, a shortage of professionally trained technicians. Most Registered Veterinary Technicians are employed in private veterinary hospitals, but graduates may also work in diagnostic laboratories, biomedical research institutions, humane societies, various federal and state agencies, armed forces, zoological parks, wildlife rehabilitation facilities, aquariums, teaching facilities, specialty veterinary practices, large farms or ranches, and pharmaceutical research or sales.

Probable Salary Range for the San Diego Area
Starting Range: $15,000 to $18,000 per year
Experienced: $18,000 to $40,000 per year

Program Director
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Program Prerequisites
Completion of Biology 107 and Chemistry 100/100L, or equivalent, with a grade of "C" or better within the last five (5) years. **Beginning January 1, 2005 an application packet may be submitted and given a priority number with only one of the prerequisites completed, as long as the other is "in progress". A certificate of "Course Work In Progress" must be included in the application packet.**

Admission Requirements

The AHT curriculum is a **full-time**, **two year program** with the courses arranged in a sequential manner; therefore, each new class (approximately 30 students) begins in the fall semester of the academic year. ***Prior to beginning AHT course work, the completion of Biology 107 and Chemistry 100/100L (or equivalent) with a grade of "C" or better is required.*** Due to the demanding nature of the program, it is highly beneficial to complete as many as possible of the general education classes required for the A.S. degree **prior** to admission in the program. **This includes microbiology (Biology 205 at Mesa College).** Candidates are also required to demonstrate Competency in Reading and Written Expression, as well as, Competency in Mathematics (see the Academic Requirements Section of the current Mesa College Catalog, also available on line.) prior to submission of an application packet.

Degree and License Requirements

After successfully completing the program, you will be awarded an Associate of Science degree in Animal Health Technology from the San Diego Community College District. This degree enables the AHT Program graduate to sit for the California State Registered Veterinary Technician Board Examination; and upon a successful outcome, become a Registered Veterinary Technician with the Department of Consumer Affairs for the State of California. The passing rate for San Diego Mesa College graduates has historically been very high, in the 85-95 percentile.

Every candidate applying to take the California board exam must certify that she/he has never been convicted or pled nolo contendere to any violation of any law of any state, the United States, or a foreign country. In addition each candidate must disclose all misdemeanors and felonies: including, but not limited to: civil, welfare, health and safety, vehicle, or penal code conviction(s) and any conviction which has been dismissed. Candidates are required to list any conviction that has been set aside and dismissed under Section 1203.4 of the Penal Code or under any other provision of law.

Accreditation

The Animal Health Technology Program is approved by the California Board of Examiners in Veterinary Medicine, a division of the California Department of Consumer Affairs. San Diego Mesa College is accredited by the Western Association of Schools and Colleges and approved by the California State Department of Education. Currently, we do not have American Veterinary Medical Association (AVMA) accreditation. Out of state students interested in attending the Animal Health Technology Program at Mesa College should contact their own state's Veterinary Technician Board regarding graduation from a non-AVMA approved school.

Program Information Sessions

Information sessions are scheduled to brief the prospective student about the program, expectations, and selection procedure. Attendance at one of these sessions is **strongly recommended so** please make every effort to attend one of the sessions. Typically, they are on Saturday mornings from 9-11 AM. They are held at the Animal Health Technology Facility (P-300) in Room P-308. The facility is at the corner of Genesee Avenue and Marlesta Drive. Attendance at an Information Session is considered as a form of career exploration. The information dates can be found on the Mesa College Allied Health web page – http://www.sdmesa.edu/allied-health

Special Admissions Clerk for AHT

Cathy Sullivan is the Special Admissions Clerk for all of the Allied Health Programs, including Animal Health Technology. She can be reached at cmsulliv@sdccd.edu.

Fees and Expenses

Tuition costs are based on class credit hours and residency status. Certain exemptions may apply. Consult the current college catalog for fee structure. Due to the special nature of the AHT program, you should anticipate costs for medical books, professional attire, stethoscopes, coveralls, rubber boots, and miscellaneous supplies (in addition to registration fees). Expenses are typically higher the first semester, and decrease over the course of your training. These supplementary expenses average approximately $500-$600 per semester (double that the first semester). Each entering student must provide proof of current tetanus toxoid vaccination (within 10 years) and tuberculosis test results (test administered within 30 days prior to the first day of the semester).

ANIMAL HEALTH TECHNOLOGY TWO YEAR PROGRAM

Course			Hours	Units
Fall Semester – First Year				
ANHL	**100A**	Animal Care & Management	4.5 lab	1.5
ANHL	**105**	Fundamentals of Animal Health Tech	3 lect	3
ANHL	**105L**	Fundamentals of Animal Health Tech(lab)	6 lab	2
ANHL	**115**	Veterinary Office Procedures	2 lect	2
ANHL	**145**	Veterinary Anatomy and Physiology	3 lect	3
ANHL	**145L**	Veterinary Anatomy and Physiology Lab	3 lab	1
Sometime During the First Year				
BIO	**205**	General Microbiology	3 lect	5 6 lab
Spring Semester – First Year				
ANHL	**100B**	Animal Care & Management	4.5 lab	1.5
ANHL	**125**	Clinical Laboratory Techniques	3 lect	3
ANHL	**125L**	Clinical Techniques Laboratory	6 lab	2
ANHL	**205**	Diseases of Domestic Animals	3 lect	3
Fall Semester – Second Year				
ANHL	**135**	Veterinary Pharmacology	2 lect	2
ANHL	**225**	Animal Nursing Techniques & Anesthesiology	3 lect	3
ANHL	**227**	Veterinary Surgical and Nursing Procedures Lab	3 lab	1
ANHL	**235A**	Directed Clinical Practice	**	2
Spring Semester – Second Year				
ANHL	**215**	Veterinary Radiography	3 lect	3
ANHL	**215L**	Veterinary Radiography Laboratory	3 lab	1
ANHL	**229**	Advanced Surgical Nursing Procedures Lab	3 lab	1
ANHL	**255**	Laboratory Animal Medicine	2 lect	2
ANHL	**255L**	Laboratory Animal Medicine Lab	3 lab	1
ANHL	**235B**	Directed Clinical Practice	**	2

**75 hours for each unit

COURSE DESCRIPTIONS

ANHL 100A ANIMAL CARE AND MANAGEMENT
Prerequisite: BIOL 107, CHEM 100, and CHEM 100L, each with a grade of "C" or better, or equivalent. This course is not open to students with previous credit for ANHL 100. This introductory course provides Animal Health Technology students with practical experience in the basic husbandry of many animal species. Students learn and practice "essential" tasks as required by the American Veterinary Medical Association and the Registered Veterinary Technician Exam Committee Knowledge, Skills and Abilities Tasks List. These tasks include methods of housing or caging, nutrition and feeding, sanitation and hygiene in an animal setting, and handling and restraint of the various species. Students are actively involved in the daily care of the program's resident animals. Student teams are assigned to a rotation schedule so that every student works with every animal during the semester. Applicable veterinary medical and animal husbandry terminology is included.

ANHL 100B ADVANCED ANIMAL CARE AND MANAGEMENT
Prerequisite: ANHL 100A, 105, 105L, 145, and 145L, each with a grade of "C" or better, or equivalent. This course is not open to students with previous credit for ANHL 100. This course provides Animal Health Technology students with significant responsibility for resident animal care and advanced techniques in the general husbandry of many animal species. Students learn and practice "essential" tasks as required by the American Veterinary Medical Association and the Registered Veterinary Technician Exam Committee Knowledge, Skills and Abilities Tasks List. These tasks include advanced methods of housing or caging, nutrition and feeding, sanitation and hygiene in an animal setting, and handling and restraint of the various species. Students are actively involved in the daily care of the program's resident animals. Students supervise teams assigned to a rotation schedule. Applicable veterinary medical and animal husbandry terminology is included.

ANHL 105 FUNDAMENTALS OF ANIMAL HEALTH TECHNOLOGY
Corequisite: ANHL 105L. This is introductory lecture course is for the Animal Health Technology student. It defines the role of the Animal Health Technician in private veterinary practice, research institutions, regulatory agencies and zoos. Topics covered include basic animal care and management, feeding, species identifications, behavior, handling skills, animal restraint, sanitation, personal hygiene, medicating, zoonotic disease risk factors, animal nursing skills, instruments and equipment, terminology, veterinary practice ethics and legal responsibilities.

ANHL 105L FUNDAMENTALS OF ANIMAL HEALTH TECH LAB
Corequisite: ANHL 105. This introductory course is for students in the Animal Health Technology Program. It utilizes demonstrations, laboratory exercises, group activities, and lectures to illustrate the principles presented in Animal Health Technology 105. Course work fulfills the student's need to learn and practice "recommended" and "essential" tasks from the American Veterinary Medical Association's and the Registered Veterinary Technician Exam Committee's Skills, Knowledge and Abilities Tasks List. These tasks include animal restraint and handling skills, medicating techniques, breed and species identification, basic animal nursing skills, poisonous plant identification, surgical equipment and veterinary medical equipment identification, basic nutrition, terminology, sanitation/sterilization, and personal hygiene.

ANHL 115 VETERINARY OFFICE PROCEDURES
This course is not open to students with previous credit for ANHL 240. This course is for students enrolled in the Animal Health Technology Program. This veterinary office procedures course is designed to introduce the Animal Health Technology student to the development and facilitation of client care, staff management, financial guidelines, patient management and record keeping in a veterinary setting. Topics include: client and staff communication, veterinary medical ethics, veterinary logs and legalities, computer usage, financial management, and purchasing and inventory management in relationship to a veterinary establishment. Resume writing and job interviewing skills are also covered. Appropriate veterinary terminology is included.

ANHL 125 VETERINARY CLINICAL PATHOLOGY
Prerequisite: ANHL 105, 105L, 145, and 145L, each with a grade of "C" or better, or equivalent. Co-requisite: ANHL 125L. This course provides Animal Health Technology students with an introduction to the clinical examination of blood, urine, feces, dermal, and other commonly analyzed samples found in the veterinary field. Topics include: the safe and proper collection of diverse samples, the safe and proper handling of samples, the various methods of sample analysis, and the significance of normal and abnormal results. The identification, life cycle, and clinical importance of ectoparasites, endoparasites, and fungal parasites are discussed. Appropriate stains, reagents, and terminology are included.

ANHL 125L VETERINARY CLINICAL PATHOLOGY LABORATORY
Prerequisite: ANHL 105, 105L,145, and 145L each with a grade of "C" or better, or equivalent. Co-requisite: ANHL 125. This clinical pathology laboratory course is designed to provide Animal Health Technology students with the opportunity to practice the principles and procedures of clinical pathology. Techniques for the safe and proper collection, handling, and storage of blood, urine, fecal, and skin samples in various species are introduced and practiced by the student. Students perform analytical tests appropriate for each sample type and evaluate the results. Safe operation and proper maintenance of laboratory equipment commonly used in the veterinary field is stressed. Appropriate veterinary medical terminology is presented.

ANHL 135 VETERINARY PHARMACOLOGY
Prerequisite: ANHL145, 145L, and 205 each with a grade of "C" or better, or equivalent. This course is for Animal Health Technology students. The course provides the student with an introduction to the actions and uses of pharmacological agents: drug classifications, modes of action, indications and contradictions, routes of administration, and mechanisms of elimination. Dispensing and pharmacy management as well as the laws regulating controlled substances are covered. Students are expected to correctly solve medical math problems and calculate drug doses.

ANHL 145 VETERINARY ANATOMY AND PHYSIOLOGY
Prerequisite: BIOL 107 and CHEM 100/100L with a grade of "C" or better, or equivalent. Co-requisite: ANHL 145L. Advisory: MATH 046 with a grade of "C" or better, or equivalent or Assessment Skill Level M40; and ENGL 048 and 049, each with a grade of "C" or better, or equivalent, or Assessment Skill Level R5 and W5. This course is not open to students with previous credit for ANHL 120. This lecture course is designed to introduce the Animal Health Technology student to the comparative normal anatomy and physiology of selected domestic animal species. The eleven anatomical systems are covered and material presented ranges from the microscopic cellular level to the level of the full organism. Relevant application of structure and function to the clinical medical situations is addressed. Appropriate veterinary medical terminology is included with each system.

ANHL 145L VETERINARY ANATOMY AND PHYSIOLOGY LAB
Prerequisite: BIOL 107 and CHEM 100/100L with a grade of "C" or better, or equivalent. Co-requisite: ANHL 145. Advisory: MATH 046 with a grade of "C" or better, or equivalent or Assessment Skill Level M40; and ENGL 048 and 049, each with a grade of "C" or better, or equivalent, or Assessment Skill Level R5 and W5. This course is not open to students with previous credit for ANHL 120. This veterinary anatomy and physiology laboratory course is designed to provide the Animal Health Technology student with the opportunity to investigate and study the principles of normal anatomy and physiology presented in the coresponding lecture course. Techniques for the safe and proper dissection are introduced and practiced by the student during the extensive animal dissection. All eleven anatomical systems are studied through actual dissection or models. Relevant application of structure and function to the clinical medical situations is addressed. Appropriate medical terminology is included with each system. Animal dissection is carried out by each student.

ANHL 205 DISEASES OF DOMESTIC ANIMALS
Prerequisite: ANHL 145 and 145L each with a grade of "C" or better, or equivalent. Co-requisites: ANHL 125 and 125L. This course provides Animal Health Technology students with an introduction to infectious and non-infectious diseases and conditions of domestic animals. Material covered includes the etiology, pathogenesis, pathophysiology, and clinical signs of each disease. This course also details disease or condition-specific nursing care, treatments or diagnostic test methods.

ANHL 215 VETERINARY RADIOGRAPHY
Prerequisite: ANHL 145 and 145L each with a grade of "C" or better, or equivalent. Co-requisite: ANHL 215L. This course introduces the Animal Health Technician student to the use of radiography and the Registered Veterinary Technician's role in radiography in the veterinary medical fields. Topics include radiation, x-ray beam production, intensifying screens, cassettes, grid usage, latent and visible image formation, film processing, and alternative imaging methods. Protocols for commonly used radiographic studies and introductory radiographic film interpretation are included. Special emphasis is placed on radiation safety for the patient and handler and radiographic terminology. Also included is the proper use and maintenance of all veterinary radiographic and processing equipment and machines.

ANHL 215L VETERINARY RADIOGRAPHY LABORATORY
Prerequisite: ANHL 105L, 145 and 145L each with a grade of "C" or better, or equivalent. Co-requisite: ANHL 215. This course is designed to provide the Animal Health Technology students with the opportunity to practice the concepts of radiology. The students utilize established veterinary positioning and technical protocols. They expose and process radiographs to develop a technique chart for commonly used veterinary radiographic studies, including contrast studies. The students also practice radiographic film evaluation techniques, radiation log production, and radiographic equipment maintenance. Darkroom procedures and practices that prevent artifacts are employed including equipment maintenance. An introduction to performing an ultrasound abdominal exam is provided including handling and maintenance of the machinery. Procedures and protocols for radiation safety of patient, handler, and equipment are stressed.

ANHL 225 ANIMAL NURSING TECHNIQUES AND ANESTHESIOLOGY
Prerequisite: ANHL 125 and 125L, each with a grade of "C" or better, or equivalent. Co-requisite; ANHL 227. Advisory: completion of or concurrent enrollment in ANHL 135 with a grade of "C" or better. This lecture course is designed to introduce the Animal Health Technology student to veterinary anesthesia, surgical and medical nursing techniques, dental hygiene, emergency first aid, and correct legal documentation. Emphasis is placed on the appropriate use of veterinary medical terminology to explain techniques of intravenous and inhalation anesthesia, surgical asepsis, instrument sterilization, patient monitoring, and pre operative, operative, post operative and after care nursing. Additional topics include fluid therapy, bandaging/splints/casts, and commonly performed medical procedures. Appropriate pharmacological agents are discussed throughout the course with emphasis on classification, dosage, method of action, method of administration, dispensing procedures and pharmacy management.

ANHL 227 VETERINARY SURGICAL AND NURSING PROCEDURES LAB
Prerequisite: ANHL 125 and 125L and 120 and 125, each with a grade of "C" or better, or equivalent. Co-requisite: ANHL 135 and 225. This course is not open to students with credit for ANHL 225L or 226A. This surgical nursing and anesthesia laboratory course provides Animal Health Technology students with the opportunity to practice the principles and procedures of surgical nursing and anesthesia. Topics include surgical asepsis, instrument sterilization, patient monitoring, surgical and medical nursing, dental prophylaxis, emergency first aid, bandages, splints, casts, catheters, suturing patterns, collection and analysis of clinical pathology samples, blood transfusion therapy and cardio-pulmonary resuscitation. Students calculate anesthetic doses, fluid drip rates, and post-operative medication doses and practice safe operation and proper maintenance of anesthetic machines, anesthetic-surgical monitoring equipment, crash carts, and laboratory equipment commonly used in the veterinary field.

ANHL 229 ADVANCE SURGICAL NURSING PROCEDURES LAB
Prerequisite: ANHL 125, 125L, 135, 225, and 227; each with a grade of "C" or better, or equivalent. This course is not open to students with credit for ANHL 225L or 226B. This lab course is designed to introduce the Animal Health Technology student to practical application of veterinary anesthesia, surgical and medical nursing techniques, dental hygiene, emergency first aid, and correct legal documentation. Techniques of intravenous and inhalation anesthesia, surgical asepsis, pre-operative, operative, post-operative, after care nursing and patient monitoring are performed by assisting the veterinarian. Instrument sterilization, fluid therapy, bandaging/splints/casts, and commonly performed medical treatments and procedures are practiced by each student. Appropriate pharmacological agents are discussed, and utilized including classification, dosage, method of action, method of administration, calculation, dispensing procedures and pharmacy management. Appropriate veterinary medical terminology is applied.

ANHL 235A DIRECTED CLINICAL PRACTICE
Prerequisite: ANHL 105, 105L, 115, 125, 125L,145, 145L and 205; each with a grade of "C" or better, or equivalent. This course is not open to students with credit for ANHL 235. This course provides Animal Health Technology students with workplace experience in an affiliated veterinary or research institution. Students are assigned entry level and general duties, such as caring for hospitalized patients, handling and restraint, assisting in the reception and exam rooms, conducting basic laboratory procedures, and administering medications. Students work with a supervisor toward mastering the "essential" and "recommended" skills as delineated by the American Veterinary Medical Association's and the Registered Veterinary Technician Exam Committee's Knowledge, Skills and Abilities Tasks List. These skills are listed on a separate Directed Clinical Practice Task List. Clinical work is coordinated by a member of the college staff.

ANHL 235B ADVANCED DIRECTED CLINICAL PRACTICE
Prerequisite: ANHL 225 and 235A each with a grade of "C" or better, or equivalent. Co-requisites: ANHL 215 and 215L. This course is not open to students with credit for ANHL 235. This course is provides Animal Health Technology students with advanced workplace experience in an affiliated veterinary or research institution. Students are assigned general and advanced tasks, such as assisting in surgery, monitoring anesthesia and recovery, cleaning wounds and ears, applying splints or bandages, dispensing prescriptions, performing dental prophylaxis, and conducting client education. Students work independently under the direction of a supervisor toward mastering the "essential" and "recommended" skills as delineated by the American Veterinary Medical Association's and the Registered Veterinary Technician Exam Committee's Knowledge, Skills and Abilities Tasks List. These skills are listed on a separate Directed Clinical Practice Task List. Clinical work is coordinated by a member of the college staff.

ANHL 255 LABORATORY ANIMAL MEDICINE
Prerequisite: ANHL 100B, 125L, and 225 each with a grade of "C" or better, or equivalent. Co-requisite enrollment in ANHL 255L. Not open to students with previous credit for ANHL 250. This lecture course is designed for the Animal Health Technology student. The course covers the use of animals in biomedical research with an emphasis on common laboratory species, animal welfare legislation and the philosophy of laboratory animal management. The course includes handling, restraint, husbandry, care and observation of laboratory species. Methods and procedures involved in laboratory animal breeding, injections, anesthesia, sample collection, medicating, nutrition, euthanasia and necropsy are also covered. Appropriate terminology is included.

ANHL 255L LABORATORY ANIMAL MEDICINE LAB
Prerequisite: ANHL 100B, 125L, and 225 each with a grade of "C" or better, or equivalent. Co-requisite enrollment in ANHL 255. Not open to students with previous credit for ANHL 250. This laboratory animal medicine laboratory course is designed to provide the Animal Health Technology student with the opportunity to practice the principles and procedures presented in the Laboratory Animal Medicine lecture. Students apply regulations and ethical principles to various situations. Techniques for the safe and proper animal restraint, anesthesia, injection techniques, and sample collection are introduced and practiced by the student. Students also perform tattooing, ear notching and other procedures commonly utilized in the research setting. Students are required to perform a necropsy following established guidelines.