ANIMAL SCIENCE TECHNOLOGY (ATE)

ATE 1001 Introduction to Veterinary Technology
Credit Hours: 1
This course introduces legal and ethical standards, career opportunities, current issues, environmental safety, zoonotic disease risks, and professional conduct in veterinary medicine and veterinary technology.

ATE 1110 Animal Anatomy
Credit Hours: 3
Corequisites: ATEL 1110
This course covers the fundamentals of anatomy with emphasis on locating and identifying anatomical regions and landmarks. It includes an introduction to descriptive and topographical terms and basic histology. Canine and feline anatomy will be emphasized. Ruminant and equine digestive and skeletal system differences will also be examined.

ATE 1211 Animal Physiology
Credit Hours: 3
Prerequisites: ATE 1110 and ATEL 1110 - both courses with a grade of "C" or higher
This course acquaints the student with physiology of domestic animals. Emphasis is placed on the functions of organ systems relevant to veterinary technology. Aspects of physiology relating to pathogenesis of certain diseases will be discussed.

ATE 1601 Principles of Nutrition for Veterinary Technicians
Credit Hours: 1
This course introduces nutrition of animals including life energy requirements, nutritional factors contributing to disease, and treatment of nutritional diseases and deficiencies. Common grains, forages, and feeds, and nutritional supplements will be introduced. Toxic reactions to supplements, additives, poisonous plants, and other ingested supplements will be discussed. Hospital nutrition protocols based on case analysis will be developed.

ATE 1636 Large Animal Clinical and Veterinary Technician Skills
Credit Hours: 2
Prerequisites: ATEL 1650 with a grade of "C" or higher
This course acquaints the student with the fundamentals of large animal breed identification, restraint, reproduction, lactation, physiology, and nutrition. The technician's role in veterinary care will be emphasized.

ATE 1742 Applied Veterinary Medical Terminology
Credit Hours: 1
This course will familiarize the student with veterinary medical terminology, nomenclature, and documentation. Students will understand, formulate, articulate, document, and communicate effectively with colleagues and clients using the language of the veterinary medical professional.

ATE 1943 Veterinary Work Experience 1
Credit Hours: 1
Corequisites: ATEL 1311 and ATEL 1650
This course is a clinical experience in a workplace approved and monitored by the instructor. Skills emphasized in Introduction to Exam Room and Clinic Procedures Lab (ATEL 1650) and Veterinary Office Procedures (ATEL 1311) and Introduction to Veterinary Technology (ATE 1001) will be reinforced.

ATE 1944 Veterinary Work Experience 2
Credit Hours: 1
Prerequisites: ATE 1943 with a grade of "C" or higher
This course is a clinical experience in a work place approved and monitored by the instructor. Skills emphasized in Introduction to Anesthesia, Surgery, and Radiology (ATEL 1654), and Animal Clinical Pathology (ATE 2638 and ATEL 2638) will be reinforced. This course is a continuation of ATE 1943.

ATE 2613 Small Animal Diseases and Pharmacology 1
Credit Hours: 3
Prerequisites: ATE 1110, ATEL 1110, and ATEL 1652 - all courses with a grade of "C" or higher
This course introduces basic pharmacology principles, calculations, and treatments for small animal infectious diseases. Preventative medicine and vaccinations will be emphasized. Common disease states and treatments of ophthalmic, aural, gastrointestinal, and urinary systems will be introduced.

ATE 2614 Small Animal Diseases and Pharmacology 2
Credit Hours: 3
Prerequisites: ATE 2613 and ATEL 2613 - both courses with a grade of "C" or higher
This course covers dermatology, neurology, cardiology, respiratory medicine, reproduction/theriogenology, pediatrics, behavior medicine, transfusion medicine, and geriatrics. Pharmacological agents used to treat patients in each of the above areas will be covered. The student will understand common disease states in each system and their etiologies, pathogenesis, detection, treatment, and prevention.

ATE 2632 Veterinary Technical Surgical Care
Credit Hours: 3
This course will provide information on basic animal nursing skills, principles of aseptic technique, anesthesia, pain management, surgical instrumentation, and basic principles of patient preparation and anesthetic monitoring. Technical skills needed for medicating animals and surgical instrumentation preparation and handling will also be discussed. Radiographic principles including patient positioning for extremity films, and radiographic safety, chemistry and equipment use and care will be emphasized.

ATE 2638 Animal Clinical Pathology 1
Credit Hours: 3
Prerequisites: ATE 1110 and ATEL 1110 - both courses with a grade of "C" or higher
This course introduces students to clinical pathology concepts in parasitology, hematology, and urinalysis. Common endo- and ectoparasites, their life cycles, treatment, and diagnosis will be discussed. Hematology and the kinetics of the hematopoietic and coagulation systems with an emphasis on normal animal blood and common changes seen during disease states will be discussed. Urinalysis in normal animals and pathologies with an emphasis on specific gravity, chemistry, and microscopic analysis will also be a focus.

ATE 2639 Animal Clinical Pathology 2
Credit Hours: 3
Prerequisites: ATE 1211, ATE 2638 and ATEL 2638 - all courses with a grade of "C" or higher
This course covers selected topics in immunology, serology, hormonal analysis, and serum chemistry. Laboratory testing of the renal, hepatic, pancreatic, digestive, and endocrine systems are discussed as well as normal and abnormal exfoliative cytology.

ATE 2654 Advanced Anesthesia, Surgery, and Radiography
Credit Hours: 3
The course is a continuation of previous surgical nursing courses. More advanced principles of surgical assisting and anesthesia are presented with a focus on veterinary dentistry, dental radiography, radiographic safety, and radiographic technique charts.

ATE 2661 Large Animal Diseases
Credit Hours: 1
Prerequisites: ATE 1636 with a grade of "C" or higher
This course is designed to acquaint the student with the fundamentals of preventive medicine and common diseases in large animal species. Aspects of equine, bovine, ovine, caprine, and porcine diseases, disease prevention and treatment will be emphasized.

ATE 2710 Emergency Medicine for Animals
Credit Hours: 2
Prerequisites: ATE 1211 and ATE 2639 - both courses with a grade of "C" or higher
This course acquaints the student with fundamentals of emergency medicine including office and record systems, veterinary emergency triage, first aid, diagnostic procedures, treatment, and specialized imaging (i.e., ultrasound, magnetic resonance imaging, computed tomography, and contrast radiology studies). Specialized anesthetic, medical, and surgical assisting that may be needed for emergent cases are also discussed. This is a capstone course and will build on concepts from previous courses.

ATE 2936 Special Topics Seminar
Credit Hours: 1
Topics of special interest to students in the Veterinary Nursing AS degree program. A portion of the course hours may be eligible for community service if the topic is deemed appropriate. This course may be repeated for maximum credits of 3.

ATE 2945 Veterinary Work Experience 3
Credit Hours: 1
Prerequisites: ATE 1944, ATE 2613 and ATEL 2632 - all courses with a grade of "C" or higher
This is a course consisting of supervised clinical experiences in a workplace approved by the instructor. Experiences may include exotic laboratory animal or specialty practice experience. This is a continuation of ATE 1944 Veterinary Work Experience 2.

ATE 2946 Veterinary Work Experience 4
Credit Hours: 1
Prerequisites: ATE 2945 with a grade of "C" or higher
This is a capstone course consisting of supervised clinical experiences in a workplace approved by the instructor. Emphasis placed on emergency medical and surgical technical assisting and clinical pathology techniques. This course is a continuation of ATE 2945 Veterinary Work Experience 3.

ATE 3316 Financial Management of the Veterinary Practice
Credit Hours: 3
This course will guide the student in the study of the financial and economic concepts necessary to run a small business with an emphasis on managing cash flow and planning.

ATE 3344 Human Resource Management of the Veterinary Practice
Credit Hours: 3
This course explores legal issues, business concepts, and administration of various compensation and benefits plans in the field of veterinary medicine. This course examines recruitment, selection, staffing, and training methods. Students will explore and analyze various positions in veterinary practice and recruiting, interviewing, orientation, and training of qualified applicants

ATE 3516 Veterinary Law and Ethics
Credit Hours: 3
This course explores the various laws and ethics of a veterinary practice. It will examine regulatory agencies with veterinary medicine including state and federal regulations.

ATE 4314 Marketing of the Veterinary Practice
Credit Hours: 3
This course is a survey of various contemporary marketing practices that have evolved in conjunction with changes in consumer behavior and buying practices. This course explores Market research, planning, strategy, and tactics. Ethical considerations and entrepreneurship are considered within the five “Ps” of marketing: product, place, price, people, and promotion.

ATE 4317 Principles of Veterinary Management
Credit Hours: 3
This course is a survey of various principles of management. The course will introduce the student to the basic principles needed for management of a clinical veterinary setting.

ATE 4812 Veterinary Management Capstone
Credit Hours: 4
This course integrates and applies knowledge, skills, and abilities learned throughout the Veterinary Practice Management Program through the completion of a comprehensive capstone project. This capstone course must be taken in the last semester of the program.