

Course Competency

ATE 2639 ANIMAL LAB PROCEDURES 2

Course Description

This course serves as a continuation of Animal Laboratory Procedures 1 and covers immunology, liver function and diagnostic testing for liver abnormalities, kidney function and testing used in disease states, urinalysis, pancreatic evaluation; normal and abnormal exfoliative cytology; and the evaluation of endocrine disorders. It will also include principles of serological.

Course Competency	Learning Outcomes
<p>Competency 1:The student will demonstrate understanding of the principles of clinical chemistry laboratory procedures by:</p>	<ol style="list-style-type: none"> 1. Communication 2. Numbers / Data 3. Critical thinking
<ol style="list-style-type: none"> 1. Discussing the available chemistry analyzers and their principle of operation. 2. Demonstrating the differences between manual as well as automated chemistry tests, citing the advantages and disadvantages of each. 3. Identifying the purposes for the recommendations regarding collection, handling, and storage of blood samples. 4. Enumerating the guidelines for safe and efficient centrifuge operation. 5. Discussing the characteristics and differences of plasma, serum, buffy coat, etc. 6. Citing guidelines to prevent hemolysis in collected samples. 7. Discussing available diagnostic tests for organ function investigation. 8. Demonstrating the use of serologic test kits available in veterinary clinical labs. 	
<p>Competency 2:The student will become acquainted with laboratory practices in microbiology by:</p>	

<ol style="list-style-type: none"> 1. Describing the guidelines for proper sample preparation regarding urine and other body fluids. 2. Interpreting exfoliative cytology samples. 3. Determining the correct and incorrect methods of obtaining samples for the microbiology lab. 4. Citing the principles in which culture and sensitivity studies are based upon. 5. Discussing special culture media characteristics used in aerobic, anaerobic, fungal, viral, and special studies. 6. Discussing in-house vs. reference-laboratory testing. 7. Discussing allergy testing both by blood analysis and skin testing. 	
<p>Competency 3:The student will be able to identify and describe laboratory procedures associated with performing a urinalysis by:</p>	
<ol style="list-style-type: none"> 1. Learning and using terms associated with renal disease and urinalysis. 2. Discussing quality control procedures necessary in handling a urine sample. 3. Discussing what is complete urinalysis and what is assessed when performing a urinalysis. 4. Describing and discussing the anatomy and physiology of the urogenital system. 	
<p>Competency 4:The student will be to identify various laboratory methods used in assessing cytology in a veterinary laboratory by:</p>	
<ol style="list-style-type: none"> 1. Discussing how to perform an ear cytology and identify the various elements. 2. Identifying the stages of estrus and the elements associated with the various stages. 3. Identifying the anatomical sites used to perform a bone marrow aspirate. 4. Identifying supplies needed required when performing a bone marrow aspirate. 5. Identifying characteristics of bone marrow macroscopically and microscopically. 	

<ol style="list-style-type: none"> 6. Discussing how to perform M:E Ratio. 7. Describing and how to perform various techniques used to obtain cytological samples. 8. Discussing and identifying the basic assessments used to identify neoplasias. 	
<p>Competency 5:The student will be able to discuss and identify ectopic parasites by:</p>	
<ol style="list-style-type: none"> 1. Identifying genus and species of the various ectopic parasites seen in dogs and cats. 2. Identifying what supplies are needed to perform test associated with identification of ectoparasites. 3. Describing how to perform test associated with identifying the various ectoparasites. 4. Discussing microscopic objectives used in identification of parasites. 5. Identifying the various treatments used to treat the various ectoparasites. 	

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