Miami Dade College

Course Competency

ATE 2638L ANIMAL LAB PROCEDURES 1 LAB

Course Description

This course is designed to acquaint the student with clinical laboratory procedures covered in the Animal Laboratory Procedures 1 course. Areas of emphasis include hematology, coagulation and parasitology, as well as general laboratory etiquette. Corequisite: ATE 2638. (4 hr. lab)

Course Competency	Learning Outcomes
Competency 1: The student will demonstrate understanding of the use and maintenance of laboratory instruments and equipment by:	1. Numbers / Data 2. Critical thinking 3. Communication 4. Environmental Responsibility
1. Operating, cleaning, and storing the microscope and explaining its different parts. 2. Operating, cleaning & storing the refractometer, and explaining the principles of its use. 3. Operating the regular and microhematocrit centrifuges and citing the safety precautions associated with their operation. 4. Using, cleaning, and storing (when applicable) all other equipment used.	
Competency 2: The student will demonstrate proficiency in hematology laboratory procedures by:	
1. Handling and appropriately identifying, labeling and storing whole blood specimens. 2. Identifying anticoagulants necessary for various hematological and coagulation tests. 3. Identifying and properly using manual and automated instruments for hematological	

analyses. 4. Processing an anticoagulated whole blood specimen for hematological testing. 5. Preparing blood films for various parameters. 6. Determining various indices by mathematical means. 7. Identifying normal, abnormal and “panic” values in hematology in domestic animal species.	
Competency 3: The student will demonstrate proficiency in the processing of specimens for evaluation for parasites, and in the identification of those parasites commonly seen in domestic species, by:	
1. Explaining the principles of fecal flotation. 2. Identifying the special purpose flotation solutions used for parasite identification. 3. Preparing fecal flotation solutions using commercially available products. 4. Demonstrating knowledge of the quantitative and quantitative techniques for parasite identification, including sedimentation techniques, and properly performing those learned in this lab course. 5. Identifying parasite ova +/- juvenile and adult forms of parasites using the microscope. 6. Identifying macroscopic adult forms of common intestinal (+/- external) parasites found in animals.	
Competency 4: The student will demonstrate proficiency in the identification of blood parasites by:	
1. Preparing slides for various microscopic tests for heartworm infection. 2. Identifying microfilaria of different species of filarid nematodes in canine blood films. 3. Citing and identifying intra- & epicellular forms of blood parasites found in animals.	

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