



BAKER COLLEGE
STUDENT LEARNING OUTCOMES

VET2110 Veterinary Diagnostic Laboratory Procedures
5 Semester Hours

Student Learning Outcomes & Enabling Objectives

1. Explain the process of proper handling, packaging and storage of specimens for laboratory analysis.
 - a. Prepare, label, package, and store specimens for laboratory analysis for shipment.
2. Explain laboratory quality control and equipment maintenance.
3. Differentiate various blood collection tubes and their uses.
 - a. Prepare anticoagulated blood for hematology.
 - b. Produce serum by harvesting from clotted blood.
4. Compare and contrast various methods for fecal analysis as well as life cycles of intestinal parasites.
 - a. Prepare and analyze a fecal sedimentation.
 - b. Prepare and analyze a fecal through various flotation methods.
 - c. Prepare and analyze a direct fecal smear. (stained and unstained)
5. Prepare a urinalysis.
 - a. Analyze a urine dipstick for chemistry tests.
 - b. Analyze urine for determination of color, clarity, and specific gravity.
6. Analyze urine sediment.
 - a. Differentiate between the various constituents commonly found in urine.
7. Prepare and analyze blood samples for a Complete Blood Count (CBC).
 - a. Prepare and stain a blood smear.
 - b. Perform a CBC on an automated hematology analyzer.
 - c. Perform a packed cell volume/total protein manually.
 - d. Perform microscopic differential leukocyte counts on healthy and diseased animals on stained blood smears.
 - e. Calculate absolute leukocyte counts.
 - f. Perform microscopic evaluations determining erythrocyte morphology on healthy and diseased animals on stained blood smears.
 - g. Calculate corrected leukocyte count for presence of nucleated erythrocytes.
 - h. Calculate erythrocyte indices.
 - i. Perform a platelet estimate on a stained blood smear.
 - j. Summarize a reticulocyte procedure.
8. Perform various immunological laboratory tests commonly done in a veterinary hospital.
 - a. Perform an ELISA test.
 - a. Perform an agglutination test.
 - b. Perform a crossmatch.

9. Explain the various methods of processing a cytology sample.
 - a. Prepare a fine needle aspiration.
 - b. Prepare and analyze a vaginal cytology.
 - c. Prepare and analyze an ear cytology.
 - d. Explore the various methods of collection and analysis of bodily fluids.
10. Summarize various blood borne parasites and their life cycles.
 - a. Identify dirofilaria immitis using an antigen kit.
 - b. Identify dirofilaria immitis microfilaria using the direct method.
 - c. Differentiate between dirofilaria immitis and acanthocheilonema reconditum using the Knotts method.
 - d. Identify various erythrocyte parasites microscopically.
11. Explore external parasites.
 - a. Explain the various methods of diagnosing external parasites.
 - i. Mites
 - ii. Lice
 - iii. Ticks iv. Fleas
 - iv. Flies
 - b. Explain external parasite life cycles.
 - c. Evaluate a skin scraping analysis.
12. Explain the process of maintaining and running blood chemistry analyzers.
 - a. Perform quality control procedures on blood chemistry analyzer.
 - b. Perform routine blood chemistries on blood analyzer.
13. Explain the common tests used to evaluate coagulation.
 - a. Perform a coagulation test.
14. Identify common dermatophytes.

These SLOs are not approved for experiential credit.

Effective: Fall 2018