A. **Course Description**
   - **Credits:** 3.00
   - **Lecture Hours/Week:** 1.00
   - **Lab Hours/Week:** 2.00
   - **OJT Hours/Week:** 0
   - **Prerequisites:** None
   - **Corequisites:** None
   - **MnTC Goals:** None

A general introduction to the veterinary clinical sciences, this course acquaints students with laboratory safety, OSHA regulations, medical asepsis, infection control, zoonotic diseases, glassware, specimen collection, laboratory calculations, and microscopy. This course includes hands-on practice of basic laboratory techniques, veterinary parasitology, an introduction to hematology and urinalysis, and basic calculations required in the veterinary medical laboratory.

B. **Course Effective Dates:** 8/21/17 – Present

C. **Outline of Major Content Areas**
   - As noted on course syllabus

D. **Learning Outcomes**

1. Apply medical math to perform calculations involving the metric system, solution concentrations, and lab dilutions with 100% accuracy.
2. Assemble information as needed for maintenance of the SDS book.
3. Compare and contrast laboratory testing involved in veterinary medicine with that used in human medicine.
4. Compare the indications for testing whole blood, plasma or serum.
5. Demonstrate the ability to ensure safety of patients, clients and staff at a veterinary facility by: a) Employing recommended laboratory safety measures and displaying proper use of personal protective equipment, b) Practicing appropriate disposal protocols for hazardous materials and sharps, and c) Maintaining and following appropriate sanitation and nosocomial protocols for a veterinary laboratory area.
6. Demonstrate the ability to properly collect, store, process, prepare, handle, ship and submit appropriate samples and paperwork for diagnostic analysis in order to ensure maximum accuracy of results.
7. Determine the packed cell volume and total protein content of blood samples with consistent accuracy.
8. Discuss guidelines for recording and reporting injuries.
9. Discuss zoonotic diseases related to laboratory specimens.
10. Identify common parasites and understand their life cycles.
11. Identify the various types of blood tubes and their uses.
12. Identify, use and maintain common laboratory equipment and glassware.
13. Observe and discuss the performance of quality control tests on laboratory machines.
14. Perform a complete blood count, fecal analysis, and urinalysis.
15. Perform microbiology sample collection and identification from animal samples.
16. Perform venipuncture and injection techniques on animal models.
17. Prepare diagnostic quality blood smears using various stains.
18. Record laboratory results accurately and neatly
19. Summarize OSHA regulations pertaining to veterinary medical laboratories.
20. Use a light microscope and focus properly on blood, urine, fecal and bacterial samples.
21. Use proper restraint of canines & felines for various specimen collection techniques.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

F. Learner Outcomes Assessment
   As noted on course syllabus

G. Special Information
   None noted