JEFFERSON COLLEGE

COURSE SYLLABUS

VAT114

PRINCIPLES OF CLINICAL MEDICINE II

4 Credit Hours

Prepared by:

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Revised 06/08

John Keck, Dean of Career & Technical Education
I. CATALOG DESCRIPTION

Prerequisite: Completion of the first semester of the program with a 2.0 average in VAT courses.  
4 semester hours credit.

Principles of Clinical Medicine II further prepares the student for employment as a veterinary technician intern by 
providing the basics in medical and surgical nursing.  Also introduced are areas of clinical pathology that include 
parasitology, hematology, and urinalysis.  Included is a laboratory session to provide practice for techniques introduced 
as theory in the classroom.

II. EXPECTED LEARNING OUTCOMES

By the end of this course the student will have the fundamental abilities necessary to function as an intern in a small 
animal clinical setting.  The student will also acquire some introduction to related aspects of large animal practice and 
research laboratories.

III. COURSE OUTLINE

A. Medical Nursing
   1. Care of Sick Animals
   2. Administration of Medications
   3. Signs of Disease
   4. Classification of and Non Infectious Diseases of Dogs and Cats
   5. Animal Emergency Nursing

B. Surgical Nursing & Instrumentation
   1. Instrumentation
   2. Preparation of Surgical Packs and Environment
   3. Pre-Operative Evaluation
   4. Operating Room Protocol
   5. Post-Operative Evaluation - Wound Healing
   6. Anesthesia

C. Parasitology
   1. Taxonomy
   2. Types of Parasitism
   3. Parasites of Dogs and Cats
   4. Equine Parasites
   5. Ruminant Parasites
   6. Swine Parasites
   7. Diagnostic Procedures
   8. Anthelmintics

D. Hematology & Urinalysis
   1. Hematologic Terms
   2. Venipuncture - Normals
   3. CBC and other Lab Procedures
   4. Review of the Urinary System
   5. Urine Collection
   6. Visual Examination
   7. Chemical Properties of Urine
   8. Urine Sedimentation

E. Radiology
   1. Radiation Safety
   2. Imaging Equipment
   3. Patient Positioning
   4. Exposing the X-Ray Film
   5. X-Ray Film Processing
IV. UNIT OBJECTIVES

As recommended by the Committee on Veterinary Technician Education and Activities (CVTEA), upon completion of this course the student will be able to:

A. Medical Nursing
1. Apply knowledge of general hospital procedures
2. Recognize normal versus abnormal signs in animals
3. Perform many treatment procedures under direct supervision of a veterinarian
4. Perform routine record keeping, care and observation of hospitalized patients
5. Become familiar with commonly encountered non-infectious diseases of small animals.
6. Recognize signs of and initial procedures for first aid treatment in emergency situations.

B. Surgical Nursing & Instrumentation
1. Perform many treatment procedures under direct supervision of a veterinarian.
2. Perform routine record keeping, care and observation of surgical patients.
3. Apply knowledge of general operating room sanitation and disinfection of equipment.
4. Apply knowledge of aseptic technique regarding surgeon, assistant, and patient.
5. Identify common surgical instruments and their use.
6. Identify common suture materials and needles and their use.
7. Recognize normal versus abnormal signs in a surgical candidate.
8. Recognize signs of and initiate procedures for first aid treatment in emergency situations
9. Become familiar with various pre-op medications

C. Parasitology
1. Collect parasites from various small animal sources.
2. Become familiar with common internal and external parasites in various domestic species.
3. Identify common small animal internal parasites
4. Identify common small animal external parasites

D. Hematology & Urinalysis
1. Recognize normal versus abnormal hematologic values in an animal
2. Know blood sample collection techniques in small animals using the saphenous, cephalic, and jugular veins.
3. Become familiar with various cellular structures of whole blood.
4. Become familiar with and practice the various tests that constitute a complete blood count.
5. Become familiar with blood parasite identification, specifically Dirofilaria immitis, and practice the various techniques employed to detect this parasite.
6. Become familiar with some of the more basic blood chemistry techniques using automated equipment
7. Become familiar with various methods of urine sample collection.
8. Become familiar with the physical and chemical properties of urine.
10. Become familiar with various normal and abnormal structures in urine sediment.

E. Radiology
1. Become familiar with types of radiation damage and steps taken to strictly follow radiation safety rules.
2. Identify various imaging techniques used in the medical field.
3. Produce a diagnostic x-ray using an established technique chart and manual processing.

F. Medical Math
1. Become proficient in figuring dosages of oral and injectable medications of common animal species using various pharmaceuticals encountered in veterinary medicine.
2. Become proficient in figuring any domestic animal’s normal and abnormal fluid needs.
3. Become proficient in determining drip rates using common fluid delivery systems.

V. METHOD(S) OF INSTRUCTION
A. Lecture: MWF 12:00-12:50 p.m.
B. Lab/Problem Solving: TR 9:00-10:50 a.m.
C. Textbooks, Outlines/Presentations, Live Animal Models for Laboratory Instruction

VI. REQUIRED TEXTS
A. Principles & Practice of Veterinary Technology, Sirois, 2nd Ed.
B. Merck Veterinary Manual, 9th ed., Merck
D. Dosage Calculations, 7th ed., Pickar, Thomson Delmar Learning
F. An Illustrated Guide to Veterinary Medical Terminology, 2nd ed., Romich, Thomson Delmar Learning

VII. REQUIRED MATERIALS
A. Required textbooks, audio-visual aids
B. Stethoscope, nursing watch, scissors, calculator, dog leash
D. Appropriate laboratory attire (Scrubs)

VIII. SUPPLEMENTAL REFERENCES
Materials for research projects are available in the Jefferson College Library and within the Veterinary Technology Department. Journals within the department are kept for student use.

IX. METHOD(S) OF EVALUATION
A. Distribution of Final Grade

There are written exams/quizzes, homework assignments and a comprehensive final, all of which comprise equal percentages in determining 70% of the final grade.
Laboratory participation, performance, assignments and quizzes comprise 20% of the final grade.
Problem solving sessions and assignments comprise the remaining 10% of the final grade.
Class participation, diligence in animal care assignments, general attitude, and attendance are expected of the students, however, the instructor reserves the right to award or detract percentage points based on these attributes.

Students are expected to complete the course with at least a grade of C. Students who make a grade below C will be dropped from the program and invited to re-enroll as first year students and thus repeat the course the following year.

Any student found in noncompliance with the Jefferson College Honesty Policy as delineated in the Jefferson College and Veterinary Technology Student Handbooks will receive a grade of F regardless of concurrent academic standing.

X. ATTENDANCE POLICY
A. Student attendance is mandatory. Absences will not be excused. Eight or more lab or class absences result in the drop of one letter grade for the course. Ten or more absences from laboratory or classroom will result in a grade of F for the course. Lab and Problem Solving Sessions cannot be made up, regardless of the reason for absence.

B. Students are permitted to miss one exam date with no penalty. Make up exams are taken in the Assessment Center within 2 class days of the original exam. For each subsequent exam missed, the student is penalized 10% of the total value of that exam (one letter grade).
C. Failure in assigned animal care dates or failure in ANY assigned clinical duties results in the loss of one lab grade.

D. The instructor may make exceptions to this policy in certain cases, i.e., illness requiring hospitalization, death in the family, etc.

XI. ADA STATEMENT

Any student requiring special accommodations should inform the instructor and the Coordinator of Disability Support Services (Library; phone (636) 797-3000, ext. 169).

XII. ACADEMIC HONESTY STATEMENT

All students are responsible for complying with campus policies as stated in the Student Handbook (See Jefferson College Website)

http://www.jeffco.edu/jeffco/index.php?option=com_weblinks&catid=26&Itemid=84