

**JEFFERSON COLLEGE**

**COURSE SYLLABUS**

**VAT114**

**PRINCIPLES OF CLINICAL MEDICINE II**

4 Credit Hours

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## VAT114 Principles of Clinical Medicine II

### I. CATALOGUE DESCRIPTION

- A. Pre-requisite: VAT101 Introduction to Veterinary Technology and VAT113 Principles of Clinical Medicine I (both courses must be completed with a grade of “C” or better) and reading proficiency.
- B. 4 Semester Credit Hours
- C. Principles of Clinical Medicine II further prepares the student for employment as a veterinary technician intern by providing the basics in medical nursing, theriogenology, and neonatal care. Also introduced are areas of clinical pathology, including hematology and urinalysis, introductory radiology, and toxicology. A laboratory session is included to provide practice for techniques learned in the classroom. (S)
- D. Fulfills degree requirement for the Associate of Applied Science degree in Veterinary Technology

### II. EXPECTED LEARNING OUTCOMES/CORRESPONDING ASSESSMENT MEASURES

Summarize hospital care of impaired animals including gathering patient data and creating a nursing care plan; explain the etiology and pathogenesis of common non-infectious diseases in dogs and cats; identify common clinical signs, diagnostic procedures, and common treatments of non-infectious diseases; and describe wound healing and small animal wound management	In-class exercises, homework assignments, quizzes, exam, and final exam
Summarize the reproductive system in dogs and cats; describe hormonal changes that occur during the estrous cycle and pregnancy; explain the process of fertilization and embryo development; compare and contrast the canine and feline estrous cycles, gestation, and parturition; and describe the collection process and interpretation of canine vaginal cells	In-class exercises, homework assignments, quizzes, exam, and final exam
Define the neonatal period for puppies and kittens; obtain an accurate and thorough clinical history; describe the procedure for physical examination of the neonate; explain the timeline of normal development; discuss how to perform diagnostic procedures on a	In-class exercises, homework assignments, quizzes, exam, and final exam

neonate; explain common concerns and disorders in neonates; and discuss proper care of an orphaned neonatal puppy or kitten	
Define common hematological terms; describe proper blood collection techniques and proper handling of blood samples; describe the components of a complete blood count; recognize normal sites for canine and feline venipuncture; perform complete blood counts; perform a stained blood smear; and recognize normal and abnormal results for common hematologic tests	In-class exercises, homework assignments, quizzes, laboratory assignments, exam, and final exam
Describe proper urine collection techniques and handling of urine samples; list and describe methods for the physical and biochemical evaluation of urine; describe the preparation of urine for microscopic evaluation; list the cellular elements that can be found in urine sediment; identify common urine crystals; and perform a complete urinalysis	In-class exercises, homework assignments, quizzes, laboratory assignments, exam, and final exam
List common small animal toxicities and emergencies and discuss appropriate patient stabilization and treatment	In-class exercises, homework assignments, quizzes, exam, and final exam
Describe the hazards of x-radiation; summarize radiation safety including proper personal protective equipment; demonstrate proper usage of imaging equipment; demonstrate proper patient positioning; correctly expose the X-ray film; and demonstrate correct technique when developing/processing the X-ray film	In-class exercises, quizzes, laboratory assignments, laboratory practical exam, and final exam

### III. OUTLINE OF TOPICS

#### A. Medical Nursing

1. Gathering patient data
2. Identify and prioritize technician evaluations
3. Develop nursing care plan
4. Small animal noninfectious diseases
5. Wound healing
6. Small animal wound management

#### B. Theriogenology

1. Overview of female and male reproduction
2. Canine reproduction

3. Feline reproduction
  4. Breeding soundness exam of the male and female
- C. Neonatal Care
1. History
  2. Physical examination
  3. Normal development
  4. Diagnostics
  5. Routine maintenance
  6. Common concerns and disorders in the puppy and kitten
- D. Hematology
1. Complete blood count (CBC)
  2. Packed cell volume (PCV)
  3. White blood cell (WBC) count
  4. Preparation of blood smears
  5. Blood smear evaluation
- E. Urinalysis
1. Equipment and collection
  2. Color and turbidity
  3. Specific gravity
  4. Chemical evaluation
  5. Microscopic evaluation
- F. Toxicology
1. Common toxins of the dog and cat
  2. Clinical signs
  3. History
  4. Physical exam
  5. Toxin decontamination
- G. Radiology
1. Radiation Safety
  2. Legal records and film identification
  3. Filing of radiographs
  4. X-Ray equipment
  5. Patient Positioning
  6. Production of X-Rays
  7. The darkroom

#### IV. METHOD(S) OF INSTRUCTION

- A. Lectures
- B. Laboratory assignments including live animal models
- C. In-class exercises
- D. Homework Assignments
- E. Textbooks
- F. Audio-visual aids

#### V. REQUIRED TEXTBOOK(S)

- A. McCurnin, D. *Clinical Textbook for Veterinary Technicians*, (Current edition). St. Louis: Saunders Publishing
- B. *Dorland's Pocket Medical Dictionary*, (Current edition). Philadelphia: Elsevier Saunders
- C. Kahn, C. *Merck Veterinary Manual*, (Current edition). Whitehouse Station: Merck & Co., Inc.
- D. Romich, J. *An Illustrated Guide to Veterinary Medical Terminology*, (Current edition). Stamford: Cengage Learning

#### VI. REQUIRED MATERIALS

- A. Stethoscope, nursing watch, calculator, leash, thermometer
- B. Appropriate laboratory attire (scrubs)

#### VII. SUPPLEMENTAL REFERENCES

None

#### VIII. METHOD OF EVALUATION

- A. Distribution of Final Grade

There are written exams/quizzes, in-class exercises, homework assignments and a comprehensive final, all of which comprise the final lecture grade.

Laboratory participation, laboratory assignments, laboratory practical exam, and

animal care duties comprise the final laboratory grade.

A student must independently pass both the lecture portion and the laboratory portion of each class to advance in the program.

Class participation, diligence in animal care assignments, and attendance are expected of the students, however, the instructor reserves the right to award or deduct percentage points based on these attributes.

B. Assignment of Final Letter Grades

A = 93-100

B = 84-92

C = 75-83

D = 60-74

F = below 60

C. Attendance Policy

Student attendance is mandatory. There are no excused absences. If a student misses more than 15% of the total time (including lecture and laboratory) that the class meets in a semester, the student may be prohibited from attending the class by the instructor. In such cases, the student must officially withdraw from the course, by the designated withdrawal date, in order to reduce the possibility of receiving an "F" for the course. **Tardiness beyond 10 minutes is considered an absence.**

Students are permitted to miss one exam date with no penalty. Make up exams are taken in the Testing Center within 3 days of the original exam.

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

IX. ADA AA STATEMENT

Any student requiring special accommodations should inform the instructor and the Coordinator of Disability Support Services (Technology Center 101; phone 636-481-3169).

X. ACADEMIC HONESTY STATEMENT

All students are responsible for complying with campus policies as stated in the Student Handbook (see College website <http://www.jeffco.edu>).

## XI. ATTENDANCE STATEMENT

Regular and punctual attendance is expected of all students. Any one of these four options may result in the student being removed from the class and an administrative withdrawal being processed: (1) Student fails to begin class; (2) Student ceases participation for at least two consecutive weeks; (3) Student misses 15 percent or more of the coursework; and/or (4) Student misses 15 percent or more of the course as defined by the instructor. Students earn their financial aid by regularly attending and actively participating in their coursework. If a student does not actively participate, he/she may have to return financial aid funds. Consult the College Catalog or a Student Financial Services representative for more details.

## XII. OUTSIDE OF CLASS ACADEMICALLY RELATED ACTIVITIES

The U.S. Department of Education mandates that students be made aware of expectations regarding coursework to be completed outside the classroom. Students are expected to spend substantial time outside of class meetings engaging in academically-related activities such as reading, studying, and completing assignments. Specifically, time spent on academically-related activities outside of class combined with time spent in class meetings is expected to be a minimum of 37.5 hours over the duration of the term for each credit hour.

Since this class is a face-to-face, 16-week, 4 credit hour class, the expectation is that 150 hours be spent on academically-related activities over the 16-week period. The class meets face-to-face for 65 hours over the 16 weeks, so it is expected that 85 hours be spent on outside-of-class activities. This means you should spend about 5 hours each week reading the textbook, completing assignments, studying for exams, etc.