

JEFFERSON COLLEGE

COURSE SYLLABUS

VAT250

VETERINARY HOSPITAL TECHNOLOGY I

5 Credit Hours

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VAT250 Veterinary Hospital Technology I

I. CATALOGUE DESCRIPTION

- A. Prerequisites: VAT101 Introduction to Veterinary Technology, VAT106 Applied Pharmacology, VAT113 Principles of Clinical Medicine I, VAT114 Principles of Clinical Medicine II, VAT199 Veterinary Technology Internship, BIO208 Vertebrate Physiology or BIO212 Anatomy and Physiology II, and BIO113 Microbiology for Health Sciences or BIO215 General Microbiology (all courses must be completed with a grade of “C” or better) and reading proficiency
- B. 5 Semester Credit Hours
- C. Veterinary Hospital Technology I involves practical applications in preventive medicine and medical and surgical nursing, including pre-surgical preparation and post-surgical care of animals, induction and monitoring of anesthesia, and surgical assistance. An extensive laboratory session is included to practice techniques learned in the classroom. (F)
- D. Fulfills degree requirement for the Associate of Applied Science degree in Veterinary Technology

II. EXPECTED LEARNING OUTCOMES/CORRESPONDING ASSESSMENT MEASURES

Obtain an accurate and complete medical history; describe the general procedures used to perform a physical examination in dogs and cats; describe methods used for performing a comprehensive evaluation of each of the body systems; and demonstrate the ability to accurately obtain a temperature, pulse, and respiration rate in dogs and cats	In-class test, instructor observation during laboratory sessions, homework, and comprehensive final exam
Describe methods for formatting medical records and explain their respective advantages and disadvantages; explain each portion of the technician SOAP note, the types of information included in each portion; and demonstrate the proper management of paper and electronic medical records	In-class test, instructor observation during laboratory sessions, homework, and comprehensive final exam
List actions taken to diminish stress among dogs and cats during physical examinations and hospitalizations	In-class test, instructor observation during laboratory sessions, homework, laboratory practical examination, and comprehensive final exam
Summarize and demonstrate preoperative preparation of the surgical patient including	In-class test, instructor observation during laboratory sessions, homework, laboratory

<p>preoperative patient assessment, clipping, surgical scrub techniques, positioning, and draping; describe and demonstrate proper intraoperative techniques including operating room sterility, surgical lighting, the passing of surgical instruments, hemostasis, suture cutting, lavage and suction, and tissue manipulation, retraction, and organ positioning; describe and demonstrate the postoperative responsibilities of the veterinary technician in surgical assistance; name and identify commonly used surgical instruments; and describe commonly used suture materials, suture needles, and suture patterns used in small animal veterinary medicine</p>	<p>practical examination, and comprehensive final exam</p>
<p>Explain the indications for fluid therapy; compare and contrast the different types of fluids and describe the uses and characteristics of each type; describe the indications for and demonstrate the techniques used to administer fluids by the intravenous, subcutaneous, and intraosseous routes; explain the indications for fluid additives; describe the methods used to monitor the effectiveness of fluid therapy; discuss common complications of fluid therapy; describe the indications for blood, plasma, and blood component transfusion; discuss the selection of blood donors; describe the techniques used to perform pre-transfusion testing; describe the techniques used to administer blood products to a patient; and discuss patient monitoring during blood transfusions</p>	<p>In-class test, instructor observation during laboratory sessions, homework, and comprehensive final exam</p>
<p>Perform dosage calculations required to dispense drugs and to administer drugs to patients; and perform fluid rate calculations required to hydrate and maintain hospitalized or surgical patients</p>	<p>In-class test, instructor observation during laboratory sessions, homework, laboratory practical examination, and comprehensive final exam</p>
<p>Describe the ability to triage a patient; assess hydration and recognize hypovolemia in critical care patients; identify diagnostic tests commonly used in emergency and critical care; explain the principles of basic first aid; identify the ideal location for an emergency care station or resuscitation area and explain</p>	<p>In-class test, instructor observation during laboratory sessions, homework, and comprehensive final exam</p>

<p>how to set up a crash cart; compare and contrast the different types of shock; list common causes of cardiopulmonary arrest and demonstrate the principles of cardiopulmonary resuscitation (CPRC); list the indications for and demonstrate the principles of central venous pressure (CVP) and blood pressure (BP); and list the indications for and demonstrate the principles of electrocardiography (ECG)</p>	
<p>Discuss each aspect of patient preparation for an anesthetic procedure; identify and describe the different types of commonly used anesthetic agents; discuss the characteristics, uses, and maintenance of anesthetic equipment; demonstrate anesthesia induction, endotracheal intubation, patient monitoring, and patient recovery techniques; and describe and recognize common anesthetic problems and emergencies, associated causes, and interventions</p>	<p>In-class test, instructor observation during laboratory sessions, homework, laboratory practical examination, and comprehensive final exam</p>

III. OUTLINE OF TOPICS

- A. History and Physical Examination
 - 1. The role of the Veterinary Technician in history taking
 - 2. History information
 - 3. Documenting physical examination information
 - 4. Temperature, pulse, and respiration
 - 5. Systems review

- B. Veterinary Medical Records
 - 1. Format of veterinary medical records
 - 2. Components of veterinary medical records
 - 3. Management of paper medical records
 - 4. Management of electronic medical records

- C. Small Animal Surgical Nursing
 - 1. Preoperative patient assessment
 - 2. Role of the surgical assistant
 - 3. Preparation of the surgical patient
 - 4. Operating room sterility
 - 5. Surgical instruments and instrument table organization
 - 6. Surgical lighting
 - 7. Instrument passing
 - 8. Retraction

9. Hemostasis
 10. Suture cutting
 11. Lavage and suction
 12. Tissue manipulation, retraction, and organ positioning

 13. Postoperative management
 14. Suture classifications, patterns, and knots
 15. Suture needles
 16. Suture placement and removal
- D. Fluid Therapy and Transfusion Medicine
1. Indications for fluid therapy
 2. Body fluid compartments
 3. Types of intravenous fluids
 4. Specifics of fluid administration
 5. Fluid additives
 6. Monitoring fluid therapy
 7. Complications of fluid therapy
 8. Indications for blood and plasma transfusion
 9. Blood donors
 10. Pre-transfusion testing
 11. Blood collection
 12. Blood products
 13. Blood product administration
- E. Pharmacology and Pharmacy
1. Drug dosage forms
 2. Drug storage and disposal
 3. Prescription writing and dispensing
 4. Drug calculations
 5. Fluid rate calculations
- F. Emergency and Critical Care Nursing
1. Patient triage
 2. Assessment of hydration and hypovolemia
 3. Initial diagnostics
 4. Basic first aid
 5. Crash cart
 6. Shock and the systemic inflammatory response syndrome
 7. Cardiopulmonary arrest
 8. Cardiopulmonary cerebral resuscitation (CPR)
 9. Patient monitoring
 10. Canine and feline electrocardiography (ECG)
 11. Central venous pressure (CVP)
 12. Blood pressure (BP)

- G. Veterinary Anesthesia
 - 1. Anesthesia patient preparation
 - 2. Anesthetic agents
 - 3. Anesthetic equipment
 - 4. Principles of endotracheal intubation
 - 5. Anesthetic monitoring
 - 6. Manual and mechanical ventilation
 - 7. Anesthetic problems and emergencies

IV. METHOD(S) OF INSTRUCTION

- A. Lecture
- B. Laboratory Session
- C. Textbooks, Audio-Visual Aids, Live Animal Models for Laboratory Instruction, Out-Rotations to Local Veterinary Specialty Practices

V. REQUIRED TEXTBOOK(S)

McCurnin, D., *Clinical Textbook for Veterinary Technicians*, (Current edition). St. Louis: Saunders Publishing

VI. REQUIRED MATERIALS

- A. Appropriate Laboratory Attire (Scrubs)
- B. Stethoscope
- C. A Watch

VII. SUPPLEMENTAL REFERENCES

Thomas, J. and Lerche, P., *Anesthesia and Analgesia for Veterinary Technicians*, (Current edition). St. Louis: Mosby Publishing

VIII. METHOD OF EVALUATION

- A. Distribution of Final Grade

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

Laboratory participation, laboratory assignments, and a laboratory practical examination 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 and attendance are expected of the students and the instructor reserves the right to award or detract 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 that the class meets in a semester, the instructor may prohibit the student from attending the class. 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, 5 credit hour class, the expectation is that 187.5 hours be spent on academically-related activities over the 16-week period. The class meets face-to-face for 92.5 hours over the 16 weeks, so it is expected that 95 hours be spent on outside-of-class activities. This means you should spend about 6 hours each week reading the textbook, completing assignments, studying for exams, etc.