

Course discipline/number/title: VT 2260: Veterinary Surgical Nursing II

A. CATALOG DESCRIPTION

1. Credits: 2
2. Hours/Week: 1 lecture, 2 lab
3. Prerequisites (Course discipline/number): VT 1410, VT 1710, VT 1810, and VT 2900
4. Other requirements: To enroll in the course, all previous required courses must have been completed with a C or better.
5. MnTC Goals (if any): NA

B. COURSE DESCRIPTION: This course will cover pre-surgery preparation and post-surgical care of small animals, principles of surgery, aseptic technique, fluid therapy, and surgical assisting through practical experience. The course applies basic utilization of anesthetic agents, the use and operation of allied machines, monitoring and care of the anesthetized animal patient, and the pre-operative considerations and duties for anesthesia. Other topics include emergency procedures and control of post-surgical pain as well as overall pain management.

C. DATE LAST REVISED (Month, year): December, 2023

D. OUTLINE OF MAJOR CONTENT AREAS:

1. Advanced operating room procedures
2. Understanding of common surgical procedures
3. Application of anesthesia
4. Application of monitoring of anesthesia
5. Analgesia and pain management
6. Postoperative care
7. Surgical Emergency procedures

E. LEARNING OUTCOMES (GENERAL): The student will be able to:

1. Identify the concepts of analgesics and muscle relaxants.
2. Demonstrate the techniques for assisted and control ventilation.
3. Identify the principles involved with providing proper fluid therapy and for maintaining the acid base balance.
4. Identify oxygenation problems that might occur with anesthesia.
5. Keep operative records.
6. Provide post-operative care.
7. Administer anesthetic related drugs by injection, mask, or endotracheal tube.
8. Coordinate anesthesia with evaluation of patient status.
9. Demonstrate understanding of regulations involving maintenance of controlled substances log book.
10. Place endotracheal tubes in patients when appropriate.
11. Utilize clinical signs and appropriate equipment to monitor patient status in all stages of anesthetic procedures (e.g., esophageal stethoscope, Doppler, pulse oximeter, blood pressure, capnometry).
12. Evaluate patient, implement and evaluate pain management protocols.
13. Coordinate pain management with the surgical team.
14. Recognize and respond appropriately to patients in compromised states.
15. Perform appropriate resuscitation procedures as needed (e.g., calculate and administer appropriate anesthetic antagonists and emergency drugs as directed)
16. Understand and have knowledge of basic performance and able to assist in the following surgical procedures: ovariohysterectomy, cesarean section, orthopedic procedures, castration, tail docking, onychectomy, and laparotomies.
17. Perform cystocentesis.
18. Maintain and operate anesthetic delivery and monitoring equipment:
 - a) pulse oximeter, esophageal stethoscope, electrocardiograph, blood pressure, capnometry
 - b) anesthetic machines, including rebreathing systems, non-rebreathing systems induction chambers and masks
 - c) endotracheal tubes, laryngoscopes, and ambu bags
 - d) scavenging systems and oxygen sources

- F. LEARNING OUTCOMES (MNTC): NA
- G. METHODS FOR EVALUATION OF STUDENT LEARNING: Methods may include but are not limited to:
1. Written tests and/or quizzes.
 2. Surgical duty performance
 3. Course assignments
 4. Participation (especially laboratory)
- H. RCTC CORE OUTCOME(S). This course contributes to meeting the following RCTC Core Outcome(s):
- Critical Thinking. Students will think systematically and explore information thoroughly before accepting or formulating a position or conclusion.
- Personal and Professional Accountability. Students will take responsibility as active learners for achieving their educational and personal goals.
- I. SPECIAL INFORMATION (if any):
- The initial lab session explains and familiarizes the student with general safety hazards and safety equipment to the lab. During the pre- lab discussion, the hazardous characteristics of any materials used during a lab are discussed. In addition, if the lab involves any potentially infectious or zoonotic material, the students will be instructed on the proper use and disposal. The instructor will direct all students to where necessary protective equipment while working with any hazardous chemicals. A copy of Material Safety Data Sheets for chemicals used is available in the lab.