Course Unit	Surgical Nursing and Intensive Care			Field of study	Veterinary Science		
Bachelor in	Veterinary Nursing			School	School of Agriculture		
Academic Year	2023/2024	Year of study	2	Level	1-2	ECTS credits	7.0
Type	Semestral	Semester	2	Code	9085-783-2202-00-23		

Workload (hours)	189	Contact hours	T	TP	PL	TC	S	E	OT	O
			-	-	-	-	-	-	-	-

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s): Ana Raquel Dias Pereira, Filipa Cristina Teixeira de Sousa Rodrigues

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:
1. Assistance of medical, health, breeding, surgery and other procedures.
2. Identificação of surgery equipments, instruments and materials. Sterilization techniques. Surgery assistance.
3. Surgery site preparation, suture and suture removal
4. Skin injuries management, banding, casting and splinting.
5. Ideas about bleeding, coagulation, and scarring.
6. Anesthesia and post-surgical monitoring.
7. Fluidotherapy
8. Urgency (ABC triage)

Prerequisites

Before the course unit the learner is expected to be able to:
1. Anatomy, physiology and histology.
2. Pharmacology, anesthesia, samples collection, processing and lab delivery.
3. Animal behaviour and welfare infectious, contagious and parasitary diseases.

Course contents

Care and management of the surgery theatre, equipments, instruments and materials. Assepsis. Pre-surgery care and surgery site preparation. Soft tissues clearance. Hemorrhage and homeostasis. Tissue clamping. Suture techniques. Inflammation, healing and tissue regeneration. Trauma/wound. Post-surgery care. Fluid therapy and solutions. Blood transfusion. draining. Banding. casting. Splinting. Anesthesia and post-surgical monitoring. Urgency (ABC triage).

Course contents (extended version)

1. Generalities.
   - Concepts.
   - Surgery terminology.
   - Surgery classification.
   - Surgery nomination.
   - Surgery sorting by degree of contamination: clean, clean-contamined, contaminated, dirty.
2. Asepsis.
   - Asepsis concepts.
   - Sterilization.
   - Antisepsis.
   - Desinfection.
3. Preparation of the theatre, instruments and materials, team and patient to surgery.
   - Contaminations origins.
   - How to behave and run in surgery theatre.
   - Preparation and management of the theatre.
   - Sterilization precautions.
4. Pre-surgery care and surgery site preparation.
   - Preparation and management of surgery equipments, instruments and materials.
5. Tissues manipulation.
   - Incision techeniques.
   - Tissues clearance.
   - Dissection.
   - Retractors
   - Clamping
   - Hydration
   - Tissues trauma
6. Hemorrahage and homeostasis.
   - Hemorrhage and homeostsis.
   - Hemorrhage.
   - Hemorrhage problems.
   - Main causes.
   - Body reaction to hemorrage.
   - Homeostasis.
7. Tissues closure.
   - Generalities.
   - Proposes.
   - Suture techniques.
   - Healing.
   - Suture materials.
   - Suture instruments.
8. Inflammation, healing and tissue regeneration.
   - Inflamation.
   - Healing and tissue regeneration.
9. Trauma/wound.
   - Closed wounds.
   - Open wounds.
   - General evaluation.
   - Wound assessement.
   - Wound classification by degree of contamination.
   - Wound management.
   - Banding
   - Anti-biotherapy, anti-inflammatory, enzyme and tetanus prophylaxis.

Course contents (extended version)

10. Post-surgery patient care.
    - Indications.
    - Post-surgery assisted feeding.
    - Prophylaxis and treatment of reduced absorption.
    - Parenteral feeding, enteral, naso-oesophageal, pharyngnostomy, gastrostomy.
    - Volume calculations, feed rates and complications.
11. Routes of fluid administration and fluid solutions
    - Introduction
    - Body water
    - Routes of administration
    - Most . common fluid solutions.
    - Fluid therapy control.
    - Anesthesian/surgery and fluid therapy.
12. Introduction to suture techniques
    - Introduction.
    - Type of blood.
    - Blood tansfusion.
    - Preservation and storage.
    - Administration thechniques.
    - Possible reactions.
    - Reaction solving procedures.
13. Banding
    - Reasons for bandage
    - Bandage construction
    - Bandinage techniques
    - Bandage advantages and disadvantages
14. Drains.
    - Proposes.
    - Applications.
    - Selection and implant methodology.
    - Care in draining techniques.
    - Disadvantages.
    - Drainages.
15. Casting and splinting
    - Fracture fixing materiais and application techniques.
16. Anesthesia and post-surgical monitoring.
17. Urgency (ABC triage)

Recommended reading

1. Hozlman, G. , Raffel, T. 2015. Surgical Patient Care for Veterinary Technicians and Nurses. Wiley-Blackwell.
2. Tear, M. 2021. Small Animal Surgical Nursing. 4rd edition. Mosby.
3. Aspinall, V. ; Ackerman N. 2016. Aspinall's Complete Textbook of Veterinary Nursing. 3rd Edition. Elsevier Health Sciences.
4. Battaglia , A. ; Steele, A. 2021. Small Animal Emergency and Critical Care for Veterinary Technicians. 4rd edition. Saunders.
5. Thomas, J, Lerche, P. 2023. Anesthesia and Analgesia for Veterinary Technicians and Nurses. 6th edition. Elsevier Health Sciences

Teaching and learning methods

Theoretical classes with audio-visual support. Practical classes of drug administration in different animal species. Aiding veterinary doctor in anesthesia. Follow-up in pre, post and intra operation cares.

Assessment methods

1. Continuous and final evaluation - (Regular, Student Worker) (Final)
    - Intermediate Written Test - 80% (Two written tests on the theoretical and practical content taught)
    - Final Written Exam - 20% (On written test on the theoretical and practical content taught)
2. Appeal Exam - (Regular, Student Worker) (Final, Supplementary, Special)
    - Final Written Exam - 100% (On written test on the theoretical and practical content taught)

Language of instruction

Portuguese

Electronic validation

Ana Raquel Dias Pereira, Filipa Cristina Teixeira de Sousa Rodrigues	Álvaro Luís Pegado Lemos Mendonça	Hélder Miranda Pires Quintas	Ramiro Corujeira Valentim
13-02-2024	12-04-2024	12-04-2024	13-04-2024