

Course Unit	Surgical Nursing and Intensive Care	Field of study	Veterinary Science
Bachelor in	Veterinary Nursing	School	School of Agriculture
Academic Year	2022/2023	Year of study	2
Type	Semestral	Semester	2
Level	1-2	ECTS credits	7.0
Code	9085-671-2203-00-22		
Workload (hours)	189	Contact hours	T 30 TP - PL 15 TC 30 S - E - OT 20 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

### 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 de 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. Animal Physiotherapy: Assessment, Treatment and Rehabilitation of Animals

### 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. Asepsis. 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. Animal Physiotherapy.

### Course contents (extended version)

1. Generalities.
  - Concepts.
  - Surgery terminology.
  - Surgery classification.
  - Surgery nomination.
  - Surgery sorting by degree of contamination: clean, clean-contaminated, contaminated, dirty.
2. Asepsis.
  - Asepsis concepts.
  - Sterilization.
  - Antiseptics.
  - 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 techniques.
  - Tissues clearance.
  - Dissection.
  - Retractors
  - Clamping
  - Hydration
  - Tissues trauma
6. Hemorrhage and homeostasis.
  - Hemorrhage and homeostasis.
  - Hemorrhage.
  - Hemorrhage problems.
  - Main causes.
  - Body reaction to hemorrhage.
  - Homeostasis.
7. Tissues closure.
  - Generalities.
  - Proposes.
  - Suture techniques.
  - Healing.
  - Suture materials.
  - Suture instruments.
8. Inflammation, healing and tissue regeneration.
  - Inflammation.
  - Healing and tissue regeneration.
9. Trauma/wound.
  - Closed wounds.
  - Open wounds.
  - General evaluation.
  - Wound assesment.
  - Wound classification by degree of contamination.
  - Wound management.
  - Banding
  - Anti-biotherapy, anti-inflammatory, enzyme and tetanus prophylaxis.
10. Post-surgery patient care.
  - Indications.
  - Post-surgery assisted feeding.

**Course contents (extended version)**

- Prophylaxis and treatment of reduced absorption.
  - Parenteral feeding, enteral, naso-oesophageal, pharyngostomy, 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.
    - Anesthesia/surgery and fluid therapy.
  12. Introduction to suture techniques
    - Introduction.
    - Type of blood.
    - Blood transfusion.
    - Preservation and storage.
    - Administration techniques.
    - Possible reactions.
    - Reaction solving procedures.
  13. Banding
    - Reasons for bandage
    - Bandage construction
    - Bandage 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 materials and application techniques.
  16. Health risks assessment and waste processing.
  17. Physiotherapy and Rehabilitation
    - Functional assessment
    - Kinesiotherapy and stretching
    - Therapeutic heat and cold
    - Therapeutic Massage
    - Electrical stimulation
    - Therapeutic Ultrasounds
    - Hydrotherapy

**Recommended reading**

1. Holman, G. , Raffel, T. 2015. Surgical Patient Care for Veterinary Technicians and Nurses. Wiley-Blackwell.
2. Tear, M. 2017. Small Animal Surgical Nursing. 3rd edition. Mosby.
3. Goff, L. , Mcgowan, C. (editors), 2016. Animal Physiotherapy: Assessment, Treatment and Rehabilitation of Animals. 2ª edição, John Wiley & Sons Inc, 376 pp.
4. Aspinall, V. ; Ackerman N. 2016. Aspinall's Complete Textbook of Veterinary Nursing. 3rd Edition. Elsevier Health Sciences.
5. Battaglia , A. ; Steele, A. 2015. Small Animal Emergency and Critical Care for Veterinary Technicians. 3rd edition. Saunders.

**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**

- Components of theoretical and practical evaluation - (Regular, Student Worker) (Final, Supplementary, Special)
  - Intermediate Written Test - 50% (Theoretical part.)
  - Intermediate Oral Test - 50% (Practical part.)

**Language of instruction**

Portuguese

**Electronic validation**

Ana Raquel Dias Pereira	Álvaro Luís Pegado Lemos Mendonça	Hélder Miranda Pires Quintas	Ramiro Corujeira Valentim
12-12-2022	22-12-2022	22-12-2022	31-12-2022