

Course Unit	Medical Nursing and Rehabilitation	Field of study	Veterinary Science
Bachelor in	Veterinary Nursing	School	School of Agriculture
Academic Year	2023/2024	Year of study	3
Type	Semestral	Semester	1
Level	1-3	ECTS credits	6.0
Code	9085-783-3103-00-23		
Workload (hours)	162	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) Hélder Miranda Pires Quintas, Lina Maria Rodrigues Freire

### 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

The role / function of veterinary nurses in animal pathologies Canine Infectious Disease Feline Infectious Disease Gastrointestinal Tract Diseases Liver and pancreatic diseases. Urinary tract diseases. Eye diseases Endocrine Diseases. Banding, casting. Splinting. Animal Physiotherapy.

### Course contents (extended version)

1. The role/function of the Veterinary Nurse in animal pathologies
  - Technician Duties and Required Skills
  - . Diagnosis, Immunity
  - Factors Involved in Infectious Disease
  - Common Terminology Necessary for Understanding Pathology
2. Canine Infectious Disease and vaccination plans
  - Canine Distemper Virus (CDV) or Hard Pad Disease
  - Canine Parvovirus Type 2 (CPV-2)
  - Canine Adenovirus Type 1 (CAV-1) or Infectious Canine Hepatitis (ICH)
  - Canine Infectious Tracheobronchitis or Kennel Cough
  - Canine Influenza Virus (CIV) or Dog Flu
  - Rabies
3. Feline Infectious Disease and vaccination plans
  - Feline Panleukopenia (FPV),
  - Feline Leukemia Virus (FeLV)
  - Feline Immunodeficiency Virus (FIV)
  - . Feline Infectious Peritonitis (FIP or FIPV)
4. Gastrointestinal Tract Disease
  - Oral Cavity Periodontal Disease or Periodontitis Papilloma
  - Esophagus Megaesophagus Esophageal Obstructions Vascular Ring Anomaly Gastroesophageal Reflux
  - Stomach Acute Gastritis Gastric Ulcers
  - Gastrointestinal Obstructions Pyloric Stenosis or Chronic
  - Hypertrophic Gastropathy Gastric Dilatation and Volvulus (GDV)
5. Lower gastrointestinal tract Diseases
  - Intussusception
  - Linear Foreign Bodies
  - Inflammatory Bowel Disease
  - Megacolon Intestinal Neoplasia
6. Liver and pancreatic diseases.
  - Cholangiohepatitis
  - Feline Hepatic Lipidosis (FHL) or Fatty Liver Disease
  - Portal Systemic Shunt (PSS)
  - Hepatic Neoplasia
  - Acute Pancreatitis
  - Chronic Pancreatitis
  - Exocrine Pancreatic Insufficiency or Pancreatic Maldigestion
  - Pancreatic Neoplasia
7. Urinary Tract Diseases
  - Bacterial Cystitis or Urinary Tract Infection
  - Pyelonephritis
  - Urolithiasis (Urinary Calculi or Urinary Stones)
  - Urinary Obstruction or Blocked Tom (Feline)
  - Feline Urinary Tract Disease (FLUTD)
  - Acute Renal Failure (ARF)
  - Chronic Kidney Disease (CKD), or Chronic Renal Disease
8. Reproductive Disease
  - Vaginitis, Pyometra, Dystocia, Mastitis, Mammary Neoplasia,
  - Prostate neoplasia, Testicular Disease, Male Reproductive neoplasia
9. Casting and splinting
  - Fracture fixing materials and application techniques.
10. Physiotherapy and Rehabilitation
  - Functional assessment
  - Kinesiotherapy and stretching
  - Therapeutic heat and cold
  - Therapeutic Massage
  - Electrical stimulation

**Course contents (extended version)**

- Therapeutic Ultrasounds
- Hydrotherapy
- Laser Therapy
- Rehabilitation plans: neurological, orthopedic, osteoarthritis.
- 11. Endocrine Diseases
  - Hyperthyroidism, Hypothyroidism,
  - Hyperadrenocorticism or Cushing's Disease/Syndrome
  - Hypoadrenocorticism or Addison's Disease
  - Diabetes Mellitus or Sugar Diabetes
  - Diabetes Insipidus (DI), or Weak or Watery Diabetes
- 12. Ocular diseases
  - Conjunctivitis or Pink Eye Epiphora Third Eyelid Prolapse or Cherry Eye Entropion/Ectropion
  - Glaucoma, Corneal Ulcers, Chronic Superficial Keratitis Keratoconjunctivitis Sicca
  - Anterior Uveitis, Cataracts Progressive Retinal Atrophy (PRA) or
- 13. Heart diseases
  - Arrhythmias and ECG interpretation
  - Heart diseases and vascular diseases

**Recommended reading**

1. Johnson, A. , 2014. Small animal pathology for veterinary technicians. Wiley-Blackwell, NJ, EUA, 240 pp.
2. Goff, L. , Mcgowan, C. (editors), 2016. Animal Physiotherapy: Assessment, Treatment and Rehabilitation of Animals. 2ª edição, John Wiley & Sons Inc, 376 pp.
3. Merrill, L. (Editor), 2012. Small animal internal medicine for veterinary technicians and nurses. Wiley-Blackwell, NJ, EUA, 548 pp.
4. Cooper, B. , Mullineaux e; Turner, L. (Editors), 2020. BSAVA Textbook of veterinary nursing. 6th edition, British Small Animal Veterinary Association, RU, 960 pp.
5. Millis D & Levine D (2013). Canine Rehabilitation and Physical Therapy, 2nd Edition. Saunders. 784 pp.

**Teaching and learning methods**

Theoretical classes with audio-visual support, multimedia, computer and others. Theoretical-practical classes of medication administration, complementary diagnostic exams and assistance in physiotherapy and rehabilitation of animals of different species.

**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**

1. Portuguese, with additional English support for foreign students.
2. English

**Electronic validation**

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17-01-2024	28-01-2024	29-01-2024	29-01-2024