

<b>Course:</b>	M547 - Veterinary Nursing in Small Animals Master
<b>Degree:</b>	Master
<b>Curriculum Unit:</b>	4001006 - Intensive Anesthetic Monitoring
<b>Scientific field:</b>	Veterinary Sciences
<b>ECTS(*):</b>	4
<b>Curriculum year:</b>	1st
<b>Curriculum semester:</b>	2nd
<b>Frequency Regime:</b>	Semestrial
<b>Teacher(s):</b>	Carmen Lúcia Vasconcelos Nóbrega Manuel Vicente de Freitas Martins Ana Cristina Mega Pais de Andrade
<b>Contact hours (**):</b>	TP-13; LP-8; TO-12
<b>Total work time (hours):</b>	100

(\*) - ECTS - European Credit Transfer and Accumulation System

(\*\*) – T- Theoretical; TP- Theoretical/Practical; LP- Lab Practice; S- Seminars; I- Internships; TU - Tutorials; TO – Tutorial Orientation; O- Other (Evaluations)

## Objectives / Competences

Provide the student with a strong preparation in fundamentals anesthetics, particularly related to preparation and surgical assistance. To provide necessary knowledge to support surgical anesthesia in pets and their monitoring. The deepening of knowledge in the induction and monitoring anesthetic. Procedures, risk and emergencies will be analyzed. Skills: know and interpret anesthetics protocols for different species and clinical situations. Study the principles and techniques of anesthesia and its relationship with the Animal Physiology and Pharmacology. Explain the administration of certain anesthetic agents in specific cases, know preanesthetics, induction and maintenance of patient anesthesia, posture and anesthetic in emergence. Know the variables used to monitor the depth of anesthesia and the reason of option.

## Syllabus

Concept of Anesthesia, principles and techniques. Analysis of individual complications and their distribution by 4 large groups of morbidity and anesthetic mortality. Anesthetic morbidity and mortality indices. Quality in anesthesia. The passage from survival anesthesia to anesthesia of excellence. Anesthetic risk. Pain and anesthesia. Pre-anesthetic monitoring (evaluation of the patient, equipment and technical capacity of the team). Monitoring of anesthetic depth, temperature and systems: respiratory, cardiovascular and central / autonomic nervous system Pulsioximetry Capnometry and Capnography Interpretation of capnograms The use of anesthesia for the treatment of patients with anesthesia and anesthesia, Complications: emergencies and anesthetic and surgical complications. Critical patient anesthesia and its protocols. Post anesthesia: management of the patient's position. Care and support in the support in emergence Analgesia. Local and regional anesthesia. Biosafety.

## Teaching methodologies and evaluation criteria

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Learning strategies to be adopted will be based on active methodologies, dynamic and participative, to encourage trainees to participate actively in the entire teaching process. The teaching methodology comprises theoretical-practical lessons, laboratory and other practices, with a strong demonstrative component, giving special focus to practical cases. The group work, using established contact hours, will be encouraged, development team spirit relevant for this theme. The evaluation will be proposed to the students based on the recognition of skills acquired, performing written evaluation moments, theoretical practical intervention, with discussion of techniques and protocols and individual work, in view of the ongoing evaluation of students.

## Short bibliography

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- Bille C., Auvigne V., Libermann S., Bomassi E., Durieux P. & Rattez E (2012). Risk of anaesthetic mortality in dogs and cats: an observational cohort study of 3546 cases. *Veterinary Anaesthesia and Analgesia*, 39, 59–68
- Fletcher M.C. (2014). Anaesthesia for compromised patients. *Proceedings of the Annual Conference of the New Zealand Veterinary Nursing Association*.
- Niles J.D. & Williams J.M. (2005). *BSAVA Manual of canine and feline abdominal surgery*. Quedgeley, BSAVA
- Posner L.P., Mariani C.L., Swanson C., Asakawa M., Campbell N. & King A. S. (2014). Perianesthetic morbidity and mortality in dogs undergoing cervical and thoracolumbar spinal surgery. *Veterinary Anaesthesia and Analgesia*, 41, 137–144.
- Thomas J.A. & Lerche P (2011). *Anesthesia and analgesia for veterinary technicians*. St. Louis, Missouri: Mosby/ Elsevier
- Welsh L (2009). *Anaesthesia for Veterinary Nurses*. Blackwell Publishing, UK