

Course:	M547 - Veterinary Nursing in Small Animals Master
Degree:	Master
Curriculum Unit:	4001013 - Technologies in Animal Reproduction
Scientific field:	Veterinary Sciences
ECTS^(*):	6
Curriculum year:	1st
Curriculum semester:	1st
Frequency Regime:	Semestrial
Teacher(s):	Carolina Maria Balão da Silva Ramiro Corujeira Valentim
Contact hours ^(**):	TP-30; TO-20
Total work time (hours):	150

(*) - 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

Improve the students' knowledge in the area of small animal reproduction. Understand the basic reproduction techniques applied to male and female carnivores (dogs and cats). Recognize the main pathologies associated to the reproductive system of these animals. Modern techniques and advances in small animal reproduction, their outcomes and limitations.

To apply and be able to interpret (when asked by the Veterinarian) some of the most important techniques used in small animal reproduction.

To recognize the main pathologies applied to the reproductive system of dogs and cats, clinical signs and possible treatments.

To identify and define the application of advanced reproduction techniques, advantages and disadvantages.

Syllabus

Study the most frequently used techniques on small animal reproduction, and main reproductive pathologies. Understanding of the most recently used reproductive technologies.

REPRODUCTIVE TECHNIQUES: vaginal cytologies; vaginography; techniques for spaying and contraception; male genital tract evaluation; biopsy; fresh, cooled and frozen semen collection and evaluation; artificial insemination; pregnancy diagnose.

REPRODUCTIVE SYSTEM PATHOLOGIES: treatment and prevention of persistent paraphimosis, pathophysiology and treatment of benign prostatic hyperplasia and prostatitis, orchitis and epididymitis, testicular neoplasia and infertility in the male; ovarian cysts and neoplasia, cystic endometrial hyperplasia and pyometra, feline mammary hyperplasia. Ultrasonography applied to small animal reproduction.

LAST ADVANCES: spermogram, flow cytometry, sperm sorting, in vitro fertilization, insemination with frozen semen and embryonic techniques.

Teaching methodologies and evaluation criteria

Lecturing of theoretical and practical classes, including laboratory and clinical practices. Different audiovisual methods will be used, as well as multimedia, laboratorial and clinical. The students will be encouraged to actively participate in classes and in extra-curricular activities. In non-present classes (OT) the students should complete the protocols given in practical classes, make bibliographic research and/or following of clinical cases which will be included in their final work. The study should be continued and accompanied by the teacher, who will have an active part in the development of their activities.

The evaluation of regular students will be continuous, based on their performance in classes, seminars and extra-curricular activities. In order to approve the curricular unit, the students will have to pass a theoretical-practical exam and complete an individual monograph about an area related to small animal reproduction.

Short bibliography

NOAKES, David E. ; PARKINSON, Timothy J. ; ENGLAND Gary C. W., - Arthur's veterinary reproduction and obstetrics. 8th ed. London : W. B. Saunders, 2001. XI[4], 868 p.. ISBN 0-7020-2556-9

SIMPSON, Gillian M., ed. lit. ; ENGLAND, Gary C. W., ed. lit. ; HARVEY, Mike, ed. lit. - BSAVA Manual of small animal reproduction and neonatology. Quedgeley : BSAVA, cop. 1998. VIII, 235 p.. ISBN 0-905214-36-6

KÄHN, Wolfgang - Veterinary reproductive ultrasonography : horse, catle, sheep, goat, pig, dog, cat. Hannover : Schütersche, cop. 2004. 256 p.. ISBN 3-89993-005-3

FELDMAN, Edward C. ; NELSON, Richard W. - Canine and feline endocrinology and reproduction. 3rd. ed. St. Louis, Missouri : Saunders, cop. 2004. XIV, 1090 p.. ISBN 0-7216-9315-6

ROYAL CANIN - Reprodução canina. Paris : Aniwa, [2005]. 144 p.

GUERREIRO, R. T. Costa - Reprodução dos animais domésticos : fecundação artificial. Lisboa : Livraria Sá da Costa, 1946. 328 p.