

Module title:	Dog and cat reproduction	ECTS	3
Polish translation:	Rozród psów i kotów		
Course:	Veterinary Medicine		

Module language: English		Stage: JM-FVM	
Form of studies: ☒ intramural ☐ extramural	Type of module: ☐ basic ☒ directional	☒ mandatory ☐ elective	Semester: 9 ☒ winter semester ☐ summer semester
Academic year: 2021/2022		Catalogue number:	FVM-V-JMSS-09W-D19/3_21

Module coordinator:	Professor Piotr Jurka PhD, DVM,
Teachers responsible for the module:	Academic teachers of the Institute of Veterinary Medicine; Department of Small Animal Disease and Clinic; PhD students in accordance to the internal legal acts; visiting professors; other specialists in the field of study
Objectives of the module:	As part of the course, knowledge about the specifics of breeding dogs and cats compared to other animal species will be provided. The main goal is to master theoretical knowledge and acquire practical skills related to the reproduction of dogs and cats. The content of lecture education is a supplement to the content of practical training. Lectures (each 2 hours) Puberty, hypothalamo-hypophyseal-gonadal axis, hormonal regulation of ovarian activity, differences between dogs and cat Hormones and antibodies in clinical endocrinology of bitches and queens Reproduction, fertilization and embryonic development Endocrinology of pregnancy, carnivore placenta, fetal development Ovarian functional disorders and diseases in the bitch and queens Pathogenesis of uterine diseases - cystic degeneration, EPC Pathogenesis of vaginal diseases –vaginitis, vaginal prolapse Pathology of pregnancy Parturition in small animals Dystocia, methods of obstetric treatment Neonatology – examination and treatment of newborns Neonatology – pathology of neonatal period Postpartum period Diseases of mammary gland Practical training (each 3 hours) Specificity of female genital organs morphology in carnivores, resected genital organs, technique of clinical examination Determination of the oestrous cycle phases and optimal time for mating Pharmacological and immuno- contraception – presentation of methods and drugs Orchiectomy of the dog and tomcat Surgical sterilization of the bitch and queen Diagnostic and treatment of vaginal diseases Diagnostics and treatment of ovarian and uterine diseases Conservative obstetric aid and caesarean section Healing treatments for puppies / kittens and intensive care Diagnosing and treating the most common infectious and non-infectious disease entities in puppies and kittens Diagnostics and treatment of postpartum diseases Surgery of the mammary gland
Teaching forms, number of hours:	a) Lectures – 15 h b) Practical training - 35 hours
Teaching methods:	The course is conducted in the form of lectures and practical training. Lectures in the form of original multimedia presentations, including practical and clinical aspects, exercises with the use of patients of the Small Animal Clinic, didactic animals and biological material. During the course, students participate in therapeutic procedures, gynaecological and obstetric operations, mammary gland surgery. Multimedia teaching programs using the SEKTRA educational table are also used.

		• Consultations (1h/week) Detailed schedule of the classes and detailed organization of consultations will be defined by the coordinator of the course at the beginning of semester.		
Formal prerequisites and initial requirements:		Passing the courses: Animal anatomy, Animal physiology, Veterinary pharmacology, Pathomorphology, Diagnostic imaging, Veterinary microbiology, Animal pathophysiology, Clinical and laboratory diagnostics, General surgery and anaesthesiology Knowledge of basics of handling of animals, safety rules, general examination of the animal		
Learning effects		Course outcomes:	Learning outcomes relative to the course outcomes	Impact on the course outcomes*
Knowledge:	1	- Student knows and differentiates the normal and abnormal reproductive mechanisms	B.W.1;B.W.2 B.W.3	3 2
	2	- Student knows the clinical manifestations of reproductive and knows other diseases with similar clinical appearance	B.W.4; B.W.5 B.W.6; B.W.9	3 2
	3	- Student knows the diagnostic schemes and protocols (including differential diagnosis) for reproduction disorders	B.W.4 B.W.5; B.W.6; B.W.9	3 2
	4	-Student knows the therapeutic schemes and protocols recommended for reproductive diseases, pharmacodynamic properties of recommended products and the interactions among medicinal products	B.W.6	2
Skills:	1	Student is able to describe the mechanisms of reproductive diseases	B.U.4 B.U.7; B.U. 9	3 2
	2	-Student is able to use the current nomenclature	B.U.2, B.U.9 B.U.5; B.U.7	3 2
	3	- Student is able to plan the diagnostic procedures (including differential diagnosis) in the reproductive diseases	B.U.2 B.U.1; B.U.7	2 1
	4	- Student is able to plan and monitor the treatment strategies	B.U.10; B.U.13 B.U.15; B.U.20	3 2
Competences:	1	Student formulate responsible clinical decisions based primarily on the animal welfare	KS.1; KS.2; KS.3; KS.6; KS.7; KS.9	2
	2	-Student formulate his opinion about understand the onset of the disease, clinical appearance and therapeutic process in the context of normal and abnormal immune functions	KS.4; KS.5; KS.6; KS.8	2
	3	Student formulate the necessity of constant education using scientific sources	KS.4; KS.5; KS.6; KS.7; KS.8	2
	4	Student formulate responsible clinical decisions based primarily on the animal welfare	KS.1; KS.2; KS.3; KS.6; KS.7; KS.9	2
Objectives of the module required to obtain learning effects:		As part of the course, knowledge about the specifics of breeding dogs and cats compared to other animal species will be provided. The main goal is to master theoretical knowledge and acquire practical skills related to the reproduction of dogs and cats. The content of lecture education is a supplement to the content of practical training.		
Assessment methods:		Practical effects are verified during clinical classes based on correctly performed medical and veterinary activities under the supervision of the teacher. The correct performance of the activity is recorded as completed. The condition of joining the theoretical final credit is obtaining confirmation of the correct performance of the required practical activities. Final exam in the form of a single-choice test. In case of unforeseen, unusual circumstances mandatory remote teaching and remote assessment methods might be adopted.		
Detail description of assessment methods; Formal documentation of learning outcome:		Number of points	Grade	
		Below 56	2 (insufficient - the course is failed)	
		56- 61	3 (sufficient)	
		62-66	3+ (sufficient +)	
		67-71	4 (good)	
		72-76	4+ (very good)	
		77-80	5 (excellent)	
		No extra assessment methods are anticipated. In case of unforeseen, unusual circumstances mandatory remote teaching and remote assessment methods might be adopted. eHMS entry. Records collected in the course portfolio i.e. individual records of student results, presence lists, database of oral and written questions, written assessments of the students.		

Elements impelling final grade:	Admission for final test: The number of absences from classes in accordance with the study regulations as admission to the test + obtaining credit for practical training. Final grade: 100% final score
Teaching base:	Laboratories and surgery room of the Veterinary Medicine Institute
Mandatory and supportive materials : 1. Johnston S and all. Canine and Feline Theriogenology, 2001 2. Dreier, K.-H., 2009: Klinik der Reproduktionsmedizin des Hundes. Schlutersche Verlagsgesellschaft 3. Noakes, D., 2009: Veterinary Reproduction and Obstetrics. W.B. Saunders Company 4. Long, S., 2006: Veterinary Genetics and Reproductive Physiology, Butterworth Heinemann. Relevant scientific publications including those of the module coordinator.	
ANNOTATIONS	

* 3 – complete and detailed, 2 – moderate, 1 – basic.

Quantitative summary of the module:

Estimated number of work hours per student (contact and self-study) essential to achieve presumed learning outcomes of the module - base for quantifying ECTS:	90 h
Total ECTS points, accumulated by students during contact learning:	2 ECTS