General information		
Academic subject	**Veterinary Ethology** Module of the course: **Physiology 1**	
Degree course	Veterinary Medicine (LM42)	
Academic Year	2021/2022	
European Credit Transfer and Accumulation System (ECTS)		4
Language	*Italian*	
Academic calendar (starting and ending date)	I bimester	
Attendance	Mandatory	

Professor/ Lecturer	
Name and Surname	Marcello Siniscalchi
E-mail	marcello.siniscalchi@uniba.it
Telephone	080 5443947
Department and address	Veterinary Medicine Campus – Valenzano (BA)
Virtual headquarters	2p54i8q
Tutoring (time and day)	Tuesday- Thursday 10.00-12.00 am Monday and Wednesday 3.00-5.00 pm At the Department or via Teams

Syllabus	
Learning Objectives	The course aims at transferring technical and in-depth knowledge about the physiological bases of behavior and on different aspects of the ethology of the species of veterinary interest.
Course prerequisites	The student must have taken and passed the exam of Biochemistry 2 and Anatomy 2 having thus acquired skills in the field of molecular biology, veterinary clinical biochemistry and anatomy of the organs of the various systems of domestic animals.
Contents	FUNDAMETAL CONCEPTS OF ETHOLOGY Descriptive ethology. Experimental ethology. The sectors of ethology. Spontaneous components of behavior. Motivational systems. Pulses. Key stimuli and triggering signals. Ontogenesis of behavior. Maturation of behavioral modules. Measuring behavior: the ethogram. PHYSIOLOGY OF BEHAVIOR: Nervous system and behavior. Neurotransmitters and behavioral response. Neural substrates at the base of fear, anxiety and aggression. Hormones and behavior. Control of circadian rhythms. LEARNING: Predisposition to learn. Habituation and associative behavior. Latent learning. Instrumental learning. Imprinting. Insight. Memories and cognitive maps. Animal intelligence, emotions and cognitive processes. Theory of the mind. SOCIAL BEHAVIOR: Social behavior and communication in domestic animals. Regulation of food intake and eating behavior. Reproductive and maternal behavior. Sexual behavior. The game. Calm signals. Behavioral disturbances. Stress. Anxiety, fear and phobias. Aggression. APPLIED ETHOLOGY: Basic behavior modification techniques. Reinforcement. Differential reinforcement. Flooding. Systematic desensitization. Attention check. Conditioning. Counterconditioning. Chaining. Shaping

Books and bibliography	Per Jensen: Etologia degli animali domestici. McGraw-Hill - 2011.
Additional materials	Lecture notes are recommended

Work schedule			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
Hours			
100	30	25 (Practical lessons will be repeated for limited group of students, on the bases of the total number of students)	45
ECTS			
4	3	1	
Teaching strategy	Lessons will take place in the classroom, using the support of a projector, and will be presented as PowerPoint slideshow. The practical lessons will take place at the Labdog laboratory of the Section of Animal Physiology and Behaviour of the Department of Veterinary Medicine for the direct observation of animal behaviour.		
Expected learning outcomes			
Knowledge and understanding on:	o Basic knowledge related to physiological basis of behavior o Basic knowledge of the different aspects of the ethology of the species of veterinary interest		
Applying knowledge and understanding on:	o 1.4 Communicate effectively with clients, the public, professional colleagues and responsible authorities, using language appropriate to the audience concerned and in full respect of confidentiality and privacy o 1.6 Work effectively as a member of a multi-disciplinary team in the delivery of services. o 1.8 Be able to review and evaluate literature and presentations critically. o 1.9 Understand and apply principles of clinical governance, and practise evidence-based veterinary medicine. o 1.13 Demonstrate an ability of lifelong learning and a commitment to learning and professional development. This includes recording and reflecting on professional experience and taking measures to improve performance and competence. o 1.16 Handle and restrain animal patients safely and with respect of the animal, and instruct others in helping the veterinarian perform these techniques. o 1.20 Assess the physical condition, welfare and nutritional status of an animal or group of animals and advise the client on principles of husbandry and feeding. o 1.31 Assess and manage pain o 1.36 Advise on, and implement, preventive and eradication programmes appropriate to the species and in line with accepted animal health, welfare and public health standards.		

Soft skills	• *Making informed judgments and choices*
	   o At the end of the course, students must be able to evaluate the correct behavior of pets and to express his opinion about the causes and factors affecting their expression
	   o Students are also expected to acquire the following soft skills: Must		

U.O. Didattica e servizi agli studenti
Strada prov.le 62 per Casamassima, km. 3,00
70010 Valenzano (Bari) - Italy
Tel. (+39) 080 5443944-45-46 • fax (+39) 080 5443939
francesca.colaianni@uniba.it

	also acquire the following cross-cutting competence: 2.3 The structure, function and behaviour of animals and their physiological and welfare needs.

	• *Communicating knowledge and understanding*
	   o Students must acquire the correct scientific skills and technical language to provide specialist professional support.
	   o Students are also expected to acquire the following soft skills: 2.1 Understanding of, and competence in, the logical approaches to both scientific and clinical reasoning, the distinction between the two, and the strengths and limitations of each.
	• *Capacities to continue learning*
	   o Students must acquire the ability to improve their knowledge independently through further studies by reading specialized texts and scientific literature, as well as through courses and by the direct observation of animals.
	   o Students are also expected to acquire the following soft skills: 2.2 Research methods, the contribution of basic and applied research to veterinary science and implementation of 3Rs (Replacement, Reduction, Refinement).

Assessment and feedback	
Methods of assessment	Oral exam. Students must demonstrate technical and in-depth knowledge of several topics of the course program, using scientific terminology and showing critical skills in analysing the behaviour of domestic animal.

Evaluation criteria	• *Knowledge and understanding*
	   o Students are expected to organize the knowledge of the basic and fundamental concepts of the program course and show the ability to analyse the features and causes of the behavior of domestic animals
	• *Applying knowledge and understanding*
	   o Students are expected to acquire the ability of effectively approach the behavior of the pet and the client, in order to formulate a correct diagnosis and chose an adequate therapeutic plan.
	   o Practical application of theoretical concepts by examining practical cases.
	• *Autonomy of judgment*
	   o Students are expected to propose critical hypotheses on the causes and factors affecting the behavior of domestic animals
	• *Communicating knowledge and understanding*
	   o Students are expected to critically and independently discuss the issues addressed in the course program
	   o Students are expected to make connections between the different topics of the course program
	• *Communication skills*
	   o Students are expected to discuss the program topics with appropriate scientific and technical language
	• *Capacities to continue learning*
	   o Students are expected to show the ability to improve their knowledge independently through the reading of specialized texts and scientific literature.

Criteria for assessment and attribution of the final mark	The assessment of students' knowledge will be carried out through an oral interview. The final mark is expressed in thirtieths. The minimal final mark to pass

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	the exam is 18/30. The final exam of the "Veterinary Ethology" module contributes to the definition of the final mark of the "Physiology 1" exam for 4/10.
Additional information	

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