

**ACADEMIC YEAR 2023/2024**

General information	
Academic subject	<b>PRICIPLES OF PHYSIOLOGY AND ENDOCRINOLOGY OF DOMESTIC ANIMALS</b>
Degree course	Animal Science L38
Academic Year	I year
European Credit Transfer and Accumulation System (ECTS)	6
Language	Italian
Academic calendar (starting and ending date)	II semester: 26/02/2024 - 14/06/2024
Attendance	Mandatory

Professor/ Lecturer	
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Department and address	Campus of Veterinary Medicine, S.P. 62 per Casamassima km 3, 70010, Valenzano (BA)
Virtual headquarters	Microsoft Teams platform if necessary
Tutoring (time and day)	Tuesday 12:30-14:30; Thursday 14:00-15:00

Syllabus	
<b>Learning Objectives</b>	<p>Main objectives of the course are:</p> <ul style="list-style-type: none"> <li>the acquisition of basic knowledge of cellular physiology to understand mechanisms underlying the functioning of the main organs that make up the different systems and apparatuses.</li> <li>understanding how endocrine system regulates the activity of organs and systems.</li> </ul> <p>Students will have to undertake a comparative study of the physiology of different animal species in line with the educational objectives of the degree course.</p>
<b>Course prerequisites</b>	<p>To be admitted to the final exam, the student must have passed the following exams:</p> <ul style="list-style-type: none"> <li>Structural and Metabolic Biochemistry</li> <li>Zoology, Histology and Anatomy.</li> </ul>
<b>Contents</b>	<p><b>Physiology:</b> Basics of cellular physiology: plasma membrane, transports, electrophysiology. Neuron and nervous system. Muscle. Blood and its functions. Cardiovascular system. Respiratory system. Digestive system. Kidneys.</p> <p><b>Endocrinology:</b> Basics of endocrinology system: glands and hormones hypothalamus, pituitary endocrine pancreas, thyroid. parathyroid, adrenal glands.</p>
<b>Books and bibliography</b>	<ul style="list-style-type: none"> <li>Fisiologia degli animali domestici, Ø.V. Sjaastad, O. Sand, K. Hove. Casa editrice Ambrosiana.</li> </ul>
<b>Additional materials</b>	Scientific articles proposed by the teacher.

Work schedule			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
<b>Hours</b>			

150	40	10	100
<b>ECTS</b>			
6	5	1	
<b>Teaching strategy</b>		The objectives of the course will be achieved through theoretical lectures that will take place in the classroom using didactic material appropriately developed in power point format. The teacher will also provide students with scientific works to supplement the knowledge available in the recommended textbook. The course will be completed by a series of laboratory exercises through which students will put into practice some basic knowledge learned. The course is not delivered in e-learning mode (with the exception of health emergency).	
<b>Expected learning outcomes</b>			
<b>Knowledge and understanding on:</b>		<ul style="list-style-type: none"> <li>○ Students must have acquired the ability to understand the cellular mechanisms underlying the interactions between cells</li> <li>○ At the end of the course the student will have acquired essential knowledge of cell and organ physiology, as well as endocrinology. He will also have understood the role of the nervous and endocrine systems in the functional regulation of the organism</li> </ul>	
<b>Applying knowledge and understanding on:</b>		<ul style="list-style-type: none"> <li>○ The student will be able to functionally relate the various apparatuses</li> <li>○ The student will be able to independently read and interpret a report relating to the main blood tests of clinical and endocrine chemistry</li> </ul>	
<b>Soft skills</b>		<ul style="list-style-type: none"> <li>• <i>Making informed judgments and choices</i> <ul style="list-style-type: none"> <li>○ At the end of the course, the student should acquire the ability to recognize the most important differences between physiology and pathophysiology and to support own ideas</li> </ul> </li> <li>• <i>Communicating knowledge and understanding</i> <ul style="list-style-type: none"> <li>○ The student should have known technical terminology to communicate with colleagues and experts in the field of animal sciences</li> </ul> </li> <li>• <i>Capacities to continue learning</i> <ul style="list-style-type: none"> <li>○ The student should be able to further improve knowledge by autonomous learning</li> </ul> </li> </ul>	
<b>Assessment and feedback</b>			
Methods of assessment		The exam will be carried out at the end of the course by students in good standing with the prerequisites. The exam will consist of a written test with multiple choice questions on the topics of cellular and organ physiology and endocrinology.	
Evaluation criteria		<ul style="list-style-type: none"> <li>• <i>Knowledge and understanding</i> <ul style="list-style-type: none"> <li>○ The teacher will verify the acquisition of the basic knowledge on animal physiology and endocrinology</li> </ul> </li> <li>• <i>Applying knowledge and understanding</i> <ul style="list-style-type: none"> <li>○ The teacher will verify that the student is able to functionally relate what he has learned.</li> </ul> </li> <li>• <i>Autonomy of judgment</i> <ul style="list-style-type: none"> <li>○ The teacher will verify the student's ability in connecting the anatomical notions with the functioning mechanisms of the organ</li> </ul> </li> <li>• <i>Communicating knowledge and understanding</i> <ul style="list-style-type: none"> <li>○ The teacher will verify the acquisition of the specific terminology which will make the student able to communicate with the veterinary doctor and with the animal owner</li> </ul> </li> </ul>	

	<ul style="list-style-type: none"> <li>• <i>Capacities to continue learning</i> <ul style="list-style-type: none"> <li>○ The teacher will verify the acquisition by the student of an adequate study method that allows him to continue the study independently</li> </ul> </li> </ul>
Criteria for assessment and attribution of the final mark	The final grade is awarded out of thirty. The exam is passed when the grade is greater than or equal to 18/30. In formulating the judgement for each student, the teacher will take into account the commitment that everyone will have shown in attending the course by interacting with the teacher and colleagues and the result of the final written test.
<b>Additional information</b>	
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