COURSE OF STUDY: AGRICULTURAL SCIENCES AND TECHNOLOGIES
ACADEMIC YEAR: 2023-2024
ACADEMIC SUBJECT
BASIC KNOWLEDGE OF ANATOMY, PHYSIOLOGY AND MORPHOLOGY OF LIVESTOCK 3 ECTS, MODULE OF THE C.I."ANATOMY AND GENERAL ZOOTECHNICS OF 9 ECTS

General information	
Year of the course	2023/2024
Academic calendar (starting and ending date)	First semester (September 25th, 2023 – 19th January 2024)
Credits (CFU/ETCS):	3 ECTS
SSD	VET/01
Language	Italian
Mode of attendance	Optional attendance

Professor/ Lecturer	
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Department and address	Dipartimento di Scienze del Suolo, della Pianta e degli Alimenti, 2nd floor - Study no. 7
Virtual room	
Office Hours (and modalities: e.g., by appointment, on line, etc.)	Monday-Friday, 15:00-17:00 (by appointment) at the studio of the teacher or on the Teams platform

Work schedule			
Hours			
Total	Lectures	Hands-on (laboratory, workshops, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
75	16	14	45
CFU/ETCS			
3	2	1	

Teaching strategy

Learning Objectives	The course provides the basic knowledge of Anatomy, Morphology and Physiology in domestic animals for subsequent studies of feeding, reproduction, production and morpho-functional evaluation of productive animals. Objectives of the course are: - to know the principles underlying the cellular and molecular phenomena responsible for the physiological signals; - understand the general organisational principles underlying the physiological functions and their integration; - acquire the basic knowledge of the anatomical and physiological characteristics of the main systems, also in a comparative way between the different species of zootechnical interest.
Course prerequisites	Those provided by the teaching regulations.

Teaching strategie	The topics of the course are treated with the help of Power Point presentations, projections of in-depth videos and technical visits to livestock farms.
Expected learning outcomes in terms of	
Knowledge and understanding on:	○ Comparative knowledge of the main species of zootechnical interest ○ Physiological, morpho-functional point of view ○ Principal livestock production ○ Productive physiology and animal welfare
Applying knowledge and understanding on:	○ Ability to apply in an integrated way the knowledge ○ Anatomical, physiological and morpho-functional aspects of the main species ○ Animal welfare purposes
Soft skills	• *Making informed judgments and choices* Ability to analyze and link knowledge relating to the various species of zootechnical interest • *Communicating knowledge and understanding* Ability to communicate the knowledge acquired by logically connecting the different topics and with appropriate terminology • *Capacities to continue learning* ○ Ability to acquire the methodology to deepen and update the knowledge, according to a multidisciplinary approach
Syllabus	
Content knowledge	Notes on animal tissues (types and functions of epithelial, connective, muscularand nervous tissues) Elements of comparative anatomy and physiology of the systems, with particular reference to the digestive, reproductive system, mammary gland and endocrine system Morphology of zoognostic regionsMorphological evaluation Functional assessments of production skills: milk, meat and eggs
Texts and readings	R. Bortolami, E. Callegari, V. Beghelli, Anatomia e Fisiologia degli Animali Domestici, Calderini Editore D. Balasini, Zoognostica, Per la conoscenza, la valutazione e la scelta degli animali, Edagricole G. Aguggini, V. Beghelli, L.F. Giulio, Fisiologia degli Animali Domestici con ElementidiEtologia, UTET Gobetto, Pellegrini, Anatomia e fisiologia degli animali domestici, UTET Konig, Liebich, Zedda, Anatomia degli animali domestici, Piccin-Nuova Libraria
Notes, additional materials	Notes from the lessons and didactic material distributed during the course
Repository	

Assessment	
Assessment methods	For students enrolled in the year of the course in which the course is held, there is a test on the first part of the course, which consists of an oral test. The result of this test is valid for one academic year. The final exam consists of an oral test on the topics developed during the hours of theoretical and theoretical-practical lessons in the classroom, in the laboratory and/or at production companies, as reported in the Didactic Regulations of the Degree Course in Agricultural Sciences and Technologies (art. 9) and in the related study plan (Annex A).

	The preparation of the student is assessed on the basis of pre-established criteria, as detailed in Annex A of the Didactic Regulations of the Degree Course.
Assessment criteria	• Knowledge and understanding Level of deepening in the description of the anatomical, physiological and morphological aspects for the main species of zootechnical interest • Applying knowledge and understanding Level of knowledge and ability to apply in an integrated way the knowledge relating to the anatomical, physiological and morpho-functional aspects of the main species of zootechnical interest, for production and animal welfare purposes • Autonomy of judgment Ability to analyze and link knowledge relating to the various species of zootechnical interest • Communicating knowledge and understanding Students should acquire: ability to constantly update from reliable sources for proper management of the communication of information on animal welfare; ability to transfer information, approach problems (e.g. behavioural and/or managerial) and to define the best solutions with respect to specialised and non-professional audiences; • Communication skills Effectiveness and clarity in the presentation of the topics, logical connection and adequate terminology • Capacities to continue learning Methodological approach and logical connection of the topics covered
Final exam and grading criteria	The mark of the test on the first part of the course and the mark of the final exam are in thirty. For students who took the test on the first part of the course with a grade greater than or equal to eighteen, upon completion of the final exam, the evaluation is expressed by the arithmetic average of the grade of the two tests. To achieve a high evaluation, the student must have developed autonomy of judgment and adequate capacity for argumentation and presentation.
Further information	
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