

General information			
Academic subject	Zoology		
	As part of the Integrated Course (C.I.) in Biology (6 ECTS in total)		
Degree course	Veterinary Medicine		
Academic Year	2021-2022		
European Credit Transfer and Acc	umulation System (ECTS) 4		
Language	Italian		
Academic calendar (starting and e	nding date) I Bimester		
Attendance	Mandatory		

Professor/ Lecturer	
Name and Surname	Caterina Longo
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Telephone	080 5443357
Department and address	Veterinary Medicine Campus – Valenzano (BA)
Virtual headquarters	Microsoft Teams code:
Tutoring (time and day)	From Monday to Friday from 11:30 to 13:30 exclusively by appointment via email

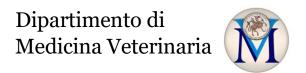
Syllabus	
Learning Objectives	The course aims to provide students with knowledge relating to the fundamental
	principles of animal biology aimed at the study and identification of the main animal
	taxa.
Course prerequisites	Basic knowledge of animal biology acquired at secondary level studies will facilitate
	the understanding of many covered topics.
Contents	The contents of the teaching program of the Zoology module of the C.I. of Biology
	related to the area of Basic Sciences are:
	Introduction
	Characteristics of living organisms. Division into Kingdoms. Definition of animal. The o
	life, the main classes of organic macromolecules.
	Fundamental principles of animal life
	The animal cell: evolution, organization and functioning. Mitosis and meiosis. Mende
	fundamental principles of inheritance. DNA and RNA: transcription of DNA and transl
	genetic information (protein synthesis).
	Reproduction and development
	Asexual and sexual reproduction. Hermaphroditism and gonochorism, sex determinated
	Amphigony and parthenogenesis. General features of embryonic development. Level
	organization: protostomes and deuterostomes, diblastic and triblastic, symmetry, me
	body cavity.
	Fundaments of comparative morphology and physiology
	The integument. Skeletal systems. The movement. Osmotic regulation, excretion,
	thermoregulation. Breathing, circulation. Nutrition and digestion. Nervous system an
	organs.
	Animal diversity
	Definition of biological diversity: genetic diversity, diversity at the species level, diversity
	community / ecosystem level.
	The value and function of biodiversity. Threats to animal diversity.
	Taxonomy and structural plans of animals
	Nomenclature and animal classification. The animal architecture and bauplan.



	Overview of the main animal phyla Protozoa. Generality, characteristics and phylogeny of the main animal phyla: Poriferans, Cnidarians, Mollusks (Gastropods, Bivalves and Cephalopods), Annelids, Arthropods (Chelicerates, Crustaceans, Myriapods, Hexapods), Echinoderms, Chordates (Cephalochordates, Urocordates, Vertebrates: Chondrichthyes, Osteichthyes, Amphibians, Reptiles, Birds, Mammals).	
Books and bibliography	AT THE STUDENT'S CHOICE BETWEEN: De Bernardi et al. (2012). Zoologia. Parte Generale. (Idelson-Gnocchi Ed.) Candia et al. (2016). Zoologia. Parte Sistematica. (Idelson-Gnocchi Ed.) Or Hickman et al. (2020). Fondamenti di zoologia. (McGraw-Hill Ed.) Hickman et al. (2020). Diversità animale. (McGraw-Hill Ed.)	
Additional materials	During the course students will be provided with further bibliographical references as well as slides, scientific articles and links to zoological web sites.	

Work schedule					
Total	Lectures		Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours	
Hours					
100	32		0	68	
ECTS					
4	4				
Teaching strateg	gy				
		Frontal lessons by means of PowerPoint presentations.			
Expected learning	ng outcomes				
Knowledge and understanding on:		At the end of the course the student must have acquired the basic knowledge fundamental principles of animal life starting from the concepts of general zoolog cytology; reproductive and developmental biology; elements of Mendelian gen fundamental principles of evolutionism) up to the description of the main animal phase levels of biodiversity; scientific nomenclature; structural models of the animal phyla; morphological and functional differences of the main animal phyla).			
understanding on: compete phyla als		compete phyla also	end of the course the student must have acquired basic zoological skills and tences including tools for recognition and classification of the main animal also through morphological analysis of representative models and omous keys.		
Soft skills		Acquisition adequateCompact Acquisition the basicCapa	ing informed judgments and choices on of autonomy in the identification and interpretation and interpretation and interpretation and interpretation and interpretation and interpretation are paths to describe the distinctive characteristics of an immunicating knowledge and understanding on of zoological terminology and nomenclature useful concepts of general zoology and the complexity of an incities to continue learning on of the ability to integrate knowledge through the continue incities to continue the continue integrate knowledge through the continue incities to continue integrate knowledge through the continue incites the continue incite incites the continue incite incites the continue incite incites the continue	imal phyla. for an effective presenimal life.	





scientific publications, texts or computer resources with scientific content.
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Assessment and feedback			
	The student's assessment includes a final oral exam		
Evaluation criteria	 Knowledge and understanding The student is called to apply the theoretical aspects acquired for the recognition, classification and description of the animal phyla also by means of comparative morphological analyzes of representative models. Applying knowledge and understanding The student must be able to apply the theoretical knowledge acquired by demonstrating the ability to recognize the main animal taxa studied during the course. Autonomy of judgment The student must be able to independently analyze the knowledge and skills acquired by demonstrating his ability to identify the morphological and structural characteristics necessary for the identification and taxonomic classification of the studied animal phyla. Communication skills The student must have acquired the ability to communicate the consents. 		
	 Communication skills The student must have acquired the ability to communicate the concepts learned using correct zoological terminology and nomenclature, discussing and critically commenting the learned concepts. Capacities to continue learning The student must demonstrate that he has acquired the tools to learn the theoretical knowledge of zoology from university books. The student will also be able to enrich his knowledge through in-depth studies, drawing on specific texts, scientific publications and/or documentaries, or thematic seminars and workshops proposed during the course. 		
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Criteria for assessment and attribution of the final mark	The grade of the exam is expressed out of 30. The exam is deemed to be passed with a minimum grade of 18/30. The mere notional knowledge of terms and concepts is not sufficient for passing the exam. The final grade of the Biology exam is given by the arithmetic average grades obtained in both modules of Zoology and Botany. To students with a strongly positive evaluation in both modules of Zoology and Botany, the Examination Board may decide to award honours at the final mark of Biology (30 cum laude).		
Additional information			
Additional illiorniation			