

<b>Veterinary Zoology (4 Credits; 60 hours)</b>			
At the end of the course students will know the principles of Zoology and Taxonomy with particular reference to Vertebrates and will be able to recognize main vertebrates of veterinary interest.			
<b>Course contents and skills/objectives</b>	<b>Topics</b>	<b>Specific Contents</b>	<b>Hours</b>
<b>1. INTRODUCTION TO ZOOLOGY (2 HOURS)</b> <i>Acquisition of concepts of "living being" -Autotrophic and Heterotrophic- and of "animal being"</i>	Definition of living being, prokaryotes and eukaryotes. Autotrophic vs heterotrophic organisms. Definition of "animal life"	Subdivision of living organisms: Prokaryotes (Archaeobacteria and Eubacteria) and eukaryotes (Protists, Fungi, Plants and Animals). Autotrophic vs heterotrophic organisms. Definition of "animal life"	2
<b>2. FUNDAMENTALS OF SYSTEMATIC ZOOLOGY (4 HOURS)</b> <i>Acquisition of concepts of speciation, species e interspecific hybrids; native vs alien species; Acquisition of main systematic categories and binomial nomenclature; identification of main body plans</i>	Definition of the concepts of species and speciation	Speciation (brief overview); definition of biological species concept; interspecific hybridization	1
	Animal biodiversity	Italy's fauna: native species vs alien species; invasive species.	1
	Systematics: main systematic categories and binomial nomenclature	Definition of main systematic categories and related rules of binomial nomenclature; Symmetry in Animals	1
	Animal Architecture and evolutionary relationships among groups of animal organisms	Diploblastic vs Triploblastic, Acoelomates, Pseudocoelomates and Coelomates; protostomia vs deuterostomia; Metameric vs non metameric segmentation	1
<b>3. REPRODUCTIVE PROCESSES ON ANIMALS (2 HOURS)</b> <i>Acquisition of concepts of sexual and asexual reproduction, alternation of the two, special cases</i>	Reproductive Processes in Animal kingdom	Sexual and asexual reproduction; metagenesis; special cases (parthenogenesis, heterogony). Gametogenesis; fecundation.	2
<b>4. VERTEBRATE ZOOLOGY (16 HOURS)</b> <i>Acquisition of main info on Chordata animal phylum, with particular reference to Vertebrates of veterinary interest (identification, systematics and biology of main species of Italian fauna)</i>	Identification, systematics and biology of main species of Italian fauna with particular reference to species of veterinary interest	<b>CHORDATES:</b> <i>synapomorphies</i> of the taxon	0,5
		<b>CARTILAGINOUS FISHES:</b> sharks and rays	2
		<b>BONY FISHES:</b> Acipenseriformes, herrings, salmons, carps, catfish, eels, cods, Lophiformes, Perciformes, flatfishes	4
		<b>AMPHIBIANS:</b> Caudata and Anura	1,5
		<b>REPTILES:</b> Squamata and Testudinata	2
		<b>BIRDS:</b> Ciconiiformes, Charadriiformes, Anseriformes, Falconiformes, Accipitriformes, Columbiformes, Galliformes, Strigiformes, Passeriformes	2
		<b>MAMMALS:</b> insectivores, bats, rodents, lagomorphs, carnivores, Artiodactyla and Cetaceans.	4
<b>5. ZOOLOGY OF INVERTEBRATES (4 HOURS)</b> <i>Acquisition of main info on main phyla of invertebrates of veterinary interest</i>	Identification, systematics and biology of main species of Italian fauna with particular reference to species of veterinary interest	<b>MOLLUSCS:</b> Bivalves, Cephalopods, Gastropods	0,5
		<b>ARTHROPODS:</b> crustaceans, insects and arachnids	2
		<b>HELMINTHS:</b> Plathelminthes e <i>Nemathelminthes</i>	1,5

<b>6. PRACTICAL CLASSES</b> <b>(8 HOURS)</b> <i>Acquisition of identification skills</i>	During the practical classes students will learn how to identify main species of vertebrates and invertebrates of Italian fauna with particular reference to species of veterinary interest	MOLLUSCS	1
		ARTROPODS	1
		BONY FISH	1
		AMPHIBIANS	1
		REPTILES (all except snakes)	1
		SNAKES	1
		MAMMALS	1
		CRUSTACEANS	1