Teaching course: Parasitology and Mycology (4 CFU; 48 hours: 38 hours of frontal lectures and 10 (×4) hours of practical lectures)
Learning outcomes: At the end of the course the student acquires knowledge of basic principles, correct terminology, taxonomy, morphology, epidemiology, life cycle of the parasites and mycetes which are more common and important in Veterinary Medicine, with regard also to Public Health. He is able to recognize parasites and mycetes through macroscopic and microscopic observation.

Lezioni frontali			
Temi e competenze acquisite	**Argomenti**	**Contenuti specifici**	**Ore**
1. INTRODUCTION TO THE COURSE (TOT. 3 HOURSE) *To know the organization of the course and the final exam procedures.* *To acquire knowledge on fundaments in veterinary parasitology*	***Organization of the course***	Presentation of contents and organization of the course, and of final exam procedures.	0.5
	Introduction to Parasitology	General concepts on parasitism. Definition of parasite and host. Essential terminology in parasitology. Notes of taxonomy and biology of parasites of interest in veterinary medicine. Host-parasite interactions. Importance of parasites for animal and Public health.	2.5
2. MYCETES (TOT. 6 HOURS) *To acquire knowledge on classification, morphology and biology of mycetes of major relevance in Veterinary Medicine and Public Health*	***Overview of mycetes***	Role of mycetes in nature. Morphology, physiology, propagation, reproduction and pathogenicity factors. Classification.	2
	Mycetes of major relevance in veterinary medicine	The dermatophytes. Mycetes of genus *Malassezia*, *Aspergillus*, *Cryptococcus*, *Candida*.	4
3. PROTOZOANS AND MICROSPORIDIA (TOT. 9 HOURS) *To acquire knowledge on classification, morphology and biology of parasites protozoans and microsporidians of major relevance in Veterinary Medicine and Public Health*	***Overview of protozoans***	Introduction to protozoan parasites of veterinary importance.	0.5
	Flagellates, Ciliates and Amebae	Classification, morphology and life cycle of parasitic flagellates (Trypanosomatidae, Trichomonadidae, Monocercomonadidae, Hexamitidae). Outline of morphology and life cycle of parasitic ciliates (Balantidiidae) and free living and parasitic amoebae	4.5
	Apicomplexa	Classification, morphology and life cycle of coccidians (Eimeriidae, Cryptosporidiidae, Sarcocystidae) and hemoprotozoans (Babesiidae, Theileriidae).	3.5
	Microsporidia	Outline of morphology and life cycle of microsporidia (Nosematidae).	0.5
4. PLATYHELMINTHES (TOT. 8 ORE) *To acquire knowledge on classification, morphology and biology of*	***Overview of Platyhelminthes***	Introduction to Platyhelminthes (flatworms) of veterinary importance.	0.5

Platyhelminthes (flatworms) of major relevance in Veterinary Medicine and Public Health	***Monogenea and Trematoda Digenea***	Outline of morphology and life cycle of monogeneans. Classification, morphology and life cycle of digenean trematodes (Fasciolidae, Dicrocoeliidae, Paramphistomidae, Opisthorchiidae, Schistosomatidae).	3.5
	Cestoda	Classification, morphology and life cycle of cestodes Pseudophyllidea (Diphyllobothriidae) and Cyclophyllidea (Taeniidae, Dipilydiidae, Anoplocephalidae, Mesocestoididae).	4
5. NEMATODES (TOT. 7 HOURS) *To acquire knowledge on classification, morphology and biology of Nematoda (roundworms) of major relevance in Veterinary Medicine and Public Health*	***Overview of Nematoda***	Introduction to Nematoda (round worms) of veterinary importance.	0.5
	Nematoda Adenophorea	Classification, morphology and life cycle of nematoda Adenophorea of the order Enoplida.	1.5
	Nematoda Secernentea	Classification, morphology and life cycle of nematoda Secernentea o the orders Ascaridida, Spirurida, Rhabditida e Strongylida.	5
6. ARTHROPODS (TOT. 5 HOURS) *To acquire knowledge on classification, morphology and biology of Arthropods of major relevance in Veterinary Medicine and Public Health*	***Overview of Arthropods***	Introduction to Arthropods of veterinary importance.	0.5
	Acari	Classification, morphology and life cycle of arthropods, subclass Acari, of the orders Metastigmata (ticks) and	2.5
	Insecta	Classification, morphology and life cycle of arthropods, class Insecta, of the orders Phthiraptera (lice), Diptera (as vectors or as agents of myases), Siphonaptera (fleas).	2
ESERCITAZIONI			
7. DIAGNOSTICS IN PARASITOLOGY (TOT. 10 HOURS) *To acquire practical skills useful to detect and identify parasites and mycetes of major relevance in Veterinary Medicine*	***Approach to the parasitological exam***	Prevention and safety in the laboratory of parasitology. Equipment, materials and reagents useful for parasitological analyses. Main parasitological techniques to be applied to biological samples from animals (feces, blood, skin scrapes, etc.)	2
	Mycetes	How to collect, sample, store and transport samples to be subjected to mycological exams. Microscopical and cultural techniques useful to identify mycetes of relevance in veterinary medicine.	2
	Protozoans	How to collect, sample, store and transport samples to be subjected to parasitological exams in order to detect protozoan parasites. Morphological identification in fresh and stained specimens.	2
	Helminths	How to collect, sample, store and transport samples to be subjected to parasitological exams in order to detect helminth parasites (flatworms and roundworms). Morphological identification.	2

	Arthropods	How to collect, sample, store and transport samples to be subjected to parasitological exams in order to detect arthropods of relevance in veterinary medicine. Morphological identification.	2