

General information	
Academic subject	<b>PROPHYLAXIS OF INFECTIOUS AND PARASITIC DISEASES OF LIVESTOCK ANIMALS</b> (integrated exam of PROPHYLAXIS OF INFECTIOUS AND PARASITIC DISEASES OF LIVESTOCK ANIMALS)
Degree course	Animal Sciences
Academic Year	2022/2023 - III year
European Credit Transfer and Accumulation System (ECTS)	2 (1+1)
Language	Italian
Academic calendar (starting and ending date)	II semester
Attendance	Compulsory

Professor/ Lecturer	
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Virtual headquarters	Microsoft Teams (code 9n5d2ic)
Tutoring (time and day)	Monday and Wednesday from 3:00 pm to 5:00 pm

Syllabus	
<b>Learning Objectives</b>	The course aims to provide specific concepts in the prevention of parasitic diseases in companion animals and to improve the technical-professional skills useful for the control and/or prevention of these diseases farm animals.
<b>Course prerequisites</b>	The student must have taken the exam of Parasitology and Parasitic diseases.
<b>Contents</b>	The course will provide useful information for the management of the main parasitic diseases of livestock animals and in particular the contents of the course will be oriented to give information for developing prophylaxis plans to prevent the main parasitic diseases of livestock animals. The course intends to reintroduce some of the concepts of parasitology (i.e., biological cycle of parasites) and parasitic diseases already learned during the course of the second year. The topics of the lectures will be focussed on: Tick infestation and tick-borne diseases (TBDs). Babesiosis, Theileriosis and Anaplasmosis; Cattle neosporosis; Gastrointestinal and intestinal strongylosis of ruminants; Infestation by larval stages (metacestodes); Flies and agents of myiasis.
<b>Books and bibliography</b>	-Ambrosi M. (1995). "Parassitologia zootecnica", Edagricole, Bologna. -AA.VV. (1998) "Parassitologia dei ruminanti". Summa. Anno XV, n° 9. -Taylor M.A., Coop R., Wall R. (2022). "Parassitologia e Malattie Parassitarie degli Animali", Edizione italiana, EMSI.
<b>Additional materials</b>	Notes of the lessons.

Work schedule			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/Self-study hours
<b>Hours</b>			
<b>50</b>	<b>10</b>	<b>25</b>	<b>15</b>
<b>ECTS</b>			
<b>2</b>	<b>1</b>	<b>1</b>	
Teaching strategy			
The course includes theoretical and practical activities. The theoretical part of the course will be held in classrooms equipped with multimedia tools through the			

	<p>projection of power point presentations. In the event of a health emergency, the course can be held in "technology enhanced" mode and the theoretical lessons will be delivered through the Microsoft Teams platform. The practical activities will be carried out in the didactic laboratories equipped with specific instruments such as optical microscopes. Students will be divided into groups of up to 8-10 people each. They will be followed by the teacher in charge assisted by the researchers and the technicians of the section. Each student will individually carry out the practical part aimed in the identification of parasitic organisms available from the parasitology collection of the Parasitology and Mycology section by the macro- and microscopic examinations. The students will join field activities that will be carried out in cattle and equine livestock farms (subject to authorization by the structure) and coordinated by veterinary medical colleagues.</p>
<b>Expected learning outcomes</b>	
<b>Knowledge and understanding on:</b>	<p>In particular, the course will allow the student to acquire knowledge regarding:</p> <ul style="list-style-type: none"> <li>○ Biological cycles of the main parasites that infest livestock;</li> <li>○ Basic principles of prevention systems and direct / indirect prophylaxis protocols aimed at managing the main parasitic diseases involving livestock;</li> <li>○ Relevance of these parasites in the context of Public Health;</li> <li>○ Basic concepts of health education.</li> </ul>
<b>Applying knowledge and understanding on:</b>	<p>The student will be able to:</p> <ul style="list-style-type: none"> <li>○ Design prophylaxis and control protocols;</li> <li>○ Develop environmental sanitation methods for arthropod vectors of the main parasites involving livestock animals;</li> <li>○ Apply the main laboratory techniques of classical parasitology and molecular biology for the identification of parasites.</li> </ul>
<b>Soft skills</b>	<ul style="list-style-type: none"> <li>● <i>Making informed judgments and choices</i> At the end of the course the student will be able to: <ul style="list-style-type: none"> <li>○ Implement control plans to reduce the risk of infection;</li> <li>○ Suggest direct and indirect prophylaxis measures for the control of parasitic infestations</li> <li>○ Apply direct and indirect prophylaxis measures in practice.</li> </ul> </li> <li>● <i>Communicating knowledge and understanding</i> Students will be able to: <ul style="list-style-type: none"> <li>○ Fully frame one's work in wider contexts and motivate the choices made in an understandable and convincing way;</li> <li>○ Transfer their knowledge by adapting the communication method to the needs of the interlocutor;</li> <li>○ Cooperate effectively in the activities of homogeneous and heterogeneous working groups.</li> <li>○ Organize the acquired knowledge in a personal and autonomous way to make simple interdisciplinary connections with related subjects;</li> <li>○ Demonstrate knowledge and ability to apply the main prophylaxis systems against parasitic diseases of livestock animals.</li> </ul> </li> <li>● <i>Capacities to continue learning</i> At the end of the course the student have to be able to broaden his/her knowledge and update himself by independently drawing on texts, scientific articles and databases.</li> </ul>
<b>Assessment and feedback</b>	
Methods of assessment	Final exam: Oral examination



<p>Evaluation criteria</p>	<ul style="list-style-type: none"> <li>• <i>Knowledge and understanding</i> By the oral exam the student will have to demonstrate that he/she has acquired adequate knowledge relating to the prophylaxis and prevention systems of the main parasitic diseases that affect livestock in all its characteristics with particular regard to etiology, epidemiology, clinical picture, laboratory diagnostics , aspects of active and passive prophylaxis and therapy.</li> <li>• <i>Applying knowledge and understanding</i> During the interview, the examiner have to verify if the student has acquired an adequate skills in identifying the correct prophylaxis system to be applied against specific parasites, and that, in the description of them, he/she has a correct display of contents using an appropriate scientific language.</li> <li>• <i>Autonomy of judgment</i> During the exam, the student will be exposed to a clinical case and have to demonstrate the acquisition of independent judgment in the suspicion of parasitic diseases and to indicate an adequate diagnostic procedure to confirm the suspicion of infection as well as to describe the prophylaxis / prevention measures useful for the control of the disease.</li> <li>• <i>Communicating knowledge and understanding</i> During the oral exam, the language used by the student will provide the examiner with the ability to evaluate the exposure and logical integration of the contents learned by the student as well as the appropriateness of the scientific terminology acquired.</li> <li>• <i>Communication skills</i> Students must be able to: <ul style="list-style-type: none"> <li>○ Fully frame their work in wider contexts and motivate the choices made in an understandable and convincing way;</li> <li>○ Transfer their knowledge adapting the communication method to the needs of the interlocutor;</li> <li>○ Cooperate effectively in the activities of homogeneous and heterogeneous working groups;</li> <li>○ To easily start working and social relationships.</li> </ul> </li> <li>• <i>Capacities to continue learning</i> During the oral exam, the examiner will assess whether the learning of knowledge has been sufficiently thorough.</li> </ul>
<p>Criteria for assessment and attribution of the final mark</p>	<p>The course assessment will be verified through an oral exam on program topics. The student has to use appropriate and scientific terminology. In order to pass the exam of "Prophylaxis of infectious and parasitic diseases of companion animals" (5 ECTS), the student must simultaneously take the exam of "Prophylaxis of infectious diseases of livestock animals" (3 ECTS) and that of "Prophylaxis parasitic diseases of companion animals" (2 ECTS).</p>
<p><b>Additional information</b></p>	
	<p>Bio-safety material and clothing required for attendance at the course.</p>