

<b>Academic subject: PROPHYLAXIS OF PARASITIC DISEASES OF LIVESTOCK</b>			
<b>Degree Class: L38</b>		<b>Degree Course: Animal Science</b>	<b>Academic Year: 2020/2021</b>
		<b>Kind of class: Optional</b>	<b>Year: III</b> <b>Period: II semester</b>
			<b>ECTS: 2</b> divided into <b>ECTS lessons: 1</b> <b>ECTS exe/lab/tutor: 1</b>
<b>Time management, hours, in–class study hours, out–of–class study hours</b> lesson: 10 Hours      exe/lab/tutor: 25 Hours      in–class study: 0 Hours      out–of–class study: 15 Hours			
<b>Language:</b> Italian	<b>Compulsory Attendance:</b> yes		
<b>Subject Teacher:</b> Riccardo Paolo Lia	<b>Tel:</b> 080 5443802 <b>e–mail:</b> riccardopaolo.lia@uniba.it	<b>Office:</b> Department of Veterinary Medicine, University of Bari “Aldo Moro”, Italy	<b>Office days and hours:</b> Monday, Tuesday and Wednesday From 3:00 pm to 5:00 pm
<b>Prerequisites:</b> Biosecurity and health management Parasitology, Mycology and Management of Sinantropic Animals.			
<b>Educational objectives:</b> The goals of those teaching activities are:  1) to improve the knowledge on the biological cycle, the epidemiology and the prophylaxis of the main parasites causing diseases in livestock.  2) to acquire technical and professional skills in order to assess the impact of parasites on the animal welfare through a correct diagnostic approach and suitable prophylaxis plans for the correct management of the livestock.			
<b>Expected learning outcomes (according to Dublin Descriptors)</b>	<b>Knowledge and understanding:</b> Students will improve their knowledge in: a) understanding the biological interaction among parasite, host and environment; b) developing suitable prophylaxis plans; c) identifying those parasites causing zoonosis through a "One Health" approach; d) studying the close relationship between human and animal health.		
	<b>Applying knowledge and understanding:</b> The aim of the course is to develop skills that are useful for planning and applying proper prophylaxis programs in livestock (cattle, sheep, goat and horse).		
	<b>Making judgments:</b> This teaching will be useful for the student to achieve her/his autonomy in the approach to the parasitic diseases by carrying out prophylaxis and control plans for minimizing the risk of infection.		
	<b>Communication:</b> Students must be able to: (i) fully frame their work in wider contexts and motivate the choices made in an understandable and convincing way; (ii) transfer their knowledge adapting the communication method to the needs of the interlocutor; (iii) cooperate effectively in the activities of homogeneous and heterogeneous working groups; (iv) to easily start working and making social relationships. These aims will be pursued and constantly verified during the teaching activity, through the active participation of students during theoretical and practical activities. Students will be encouraged to communicate and improve their skills during the lessons and lab		

activities provided by the course.  
**Lifelong learning skills:**  
At the end of the course, the students  
1) will know the specific terminology of the subject;  
2) will be able to monitor and control by preventative measures the parasitic diseases;  
3) will be able to make simple interdisciplinary connections with related subjects and to deal with "work-experience" and internship activities.

### **Course program**

The teaching contents are in a single module: Parasitic Diseases.

### **Prophylaxis of parasitic diseases of livestock**

Role of parasitic populations on animal welfare and on quantitative-qualitative food production. Health education. Prophylaxis and control measures of parasitic diseases.

- 1- Tick infestation and tick-borne diseases (TBDs): Babesiosis, Theileriosis and Anaplasmosis;
- 2- The common protozoal diseases causing abortion in the ruminants;
- 3- Influence of strongylides-gastrointestinal infestations on the qualitative - quantitative production of milk in sheep farms conducted with traditional systems;
- 4- Infestation with larval stages (metacestodosis): control, monitoring and epidemiological surveillance plans for ovine hydatidosis;
- 5- Economic impact of horn and stable Flies (Diptera: Muscidae) on dairy and beef cattle production: myiasis in the Mediterranean basin.

### **Teaching methods:**

Teaching activities: 1+1 CFU/ 35 Hours; Practical activities: 1CFU/ 25 hours (15 hours of Prophylaxis of parasitic diseases of livestock)

The teaching includes theoretical and practical lectures. The teaching activities will be held in classrooms equipped with multimedia tools through the projection for power point presentations. Innovative and interactive teachings will be held through online search in specific parasitology websites.

Practical activities will be hold in didactic laboratories equipped with specific instruments such as optical microscopies. Students will be divided into groups of a maximum 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 play individually the practical activities consisting in the identification of parasitic organisms by the macro- and microscopic examinations. Furthermore, the student will learn how to sample biological specimens and how to store them. The students will join field activities (i.e., bovine livestock farm).

### **Auxiliary teaching:**

During the laboratory activities, the students will have to wear a personal laboratory coat indicating their name. The biosecurity material necessary for carrying out the practical activities (gloves and masks) will be provided by the staff.

### **Assessment methods:**

The assessment of knowledge takes place through an oral exam on program topics.

The student will have to know prophylaxis of parasitic diseases of livestock. The students have to use the appropriate terminology and able to critically discuss the contents of the subject. The final grade of the exam will be obtained by the average of the marks of the modules of Prophylaxis of Parasitic Diseases of Livestock and Infective Diseases of Livestock.

### **Bibliography:**

-Ambrosi M. "Parassitologia zootecnica", Edagricole Bologna 1995. -AA.VV. Parassitologia dei ruminanti. Summa. Anno XV, n° 9, 1998. -Taylor M.A., Coop R., Wall R., "Parassitologia e Malattie Parassitarie degli Animali", Edizione italiana, EMSI, (2009).

Students will be provided with didactic and photographic material (<http://www.bariparasitology.it/pagina-Gallery.html>), lecture notes (<http://www.bariparasitology.it/materiale.html>), study readings in Italian (<https://www.vetjournal.it/riviste.html>) and English (<https://www.ncbi.nlm.nih.gov/pubmed>).