



SZKOŁA GŁÓWNA
GOSPODARSTWA
WIEJSKIEGO

Parasites in Horticulture and Municipal Greenery

Educational subject description sheet

Basic information

Field of study Course Offer for exchange students - second cycle studies, including uniform master studies (MA programmes)		Didactic cycle 2024/25	
Speciality -		Subject code PWMPWM2S_D.B100000P.06347.24	
Organizational unit Course Offer for exchange students		Lecture languages english	
Study level second cycle studies, including uniform master studies (MA programmes)		Mandatory Elective subjects	
Study form full-time studies		Block Basic subjects	
Education profile General academic		Disciplines	
Coordinator	Hanna Moniuszko		
Teacher	Hanna Moniuszko		
Period Winter semester	Examination Exam	Number of ECTS points 1	
	Activities and hours Lecture: 15		

Goals

Code	Goal
C1	Introduction to parasitic organisms associated with horticulture and municipal greenery. Transfer of knowledge on parasite-human interactions that may occur in gardens, parks, and urban meadows, as well as during the production and consumption of vegetables and fruits. Explanation of the sanitary-epidemiological consequences of ecto- and endoparasitism in humans. Familiarization of students with methods of anti-parasitic prophylaxis during recreation and work.

Subject's learning outcomes

Code	Outcomes in terms of	Effects	Examination methods
Knowledge - Student knows and understands:			
W1	the sources and systematic division of ecto- and endoparasites occurring in municipal and cultivatory environments and is able to characterize the most important groups and species		Test (written or computer based)
W2	the importance of morphological and physiological adaptations to parasitic lifestyle and their implications for human health		Test (written or computer based)
W3	modes of infection of the most significant parasitoses and their symptoms, as well as the methods of preventing and fighting parasitic diseases		Test (written or computer based)
Skills - Student can:			
U1	recognize symptoms of parasitism by the species associated with green areas and the horticulture		Test (written or computer based)
U2	recognize the most significant ecto- and endoparasites, their developmental instars and dispersal forms		Test (written or computer based)
Social competences - Student is ready to:			
K1	predict parasitological threats associated with horticultural activities and leisure in municipal greenery		Test (written or computer based)
K2	perceive the need of avoiding, preventing and combating parasitic diseases in humans and animals		Test (written or computer based)

Study content

No.	Course content	Subject's learning outcomes	Activities
1.	Sources of parasitic organisms in horticulture and municipal greenery with emphasis on the biological soil contamination and the host-parasite-environment interactions.	W2, W3, U2, K1, K2	Lecture
2.	Biology of ecto- and endoparasites: types of hosts and parasitism, life cycles, physiological and morphological adaptations to parasitism and dispersion.	W1, W2, U2, K1, K2	Lecture
3.	Systematic review of the most significant species of parasites: their pathogenicity, gates and symptoms of infestation of the host, symptoms of the most common parasitoses.	W2, W3, U1, K1, K2	Lecture
4.	Methods of prevention, detection, quantitative analysis and control of parasites and parasitic infestations.	W3, U2, K1, K2	Lecture

Course advanced

Activities	Methods of conducting classes
Lecture	Lecture

Activities	Examination method	Percentage
Lecture	Test (written or computer based)	100%

Activities	Credit conditions
Lecture	Scoring 50% points of the written exam.

Literature

Obligatory

1. Ballweber, L. R. (2001). The practical Veterinarian Veterinary Parasitology. Butterworth-Heinneman. ISBN 978-0750672610
2. Relevant scientific publications, including those of the module coordinator.
3. Internet sources - Centers for Disease Control and Prevention: <https://www.cdc.gov/>

Optional

1. Soares, F. A., Benitez, A. D. N., Santos, B. M. D., Loiola, S. H. N., Rosa, S. L., Nagata, W. B., ... & Gomes, J. F. (2020). A historical review of the techniques of recovery of parasites for their detection in human stools. *Revista da Sociedade Brasileira de Medicina Tropical*, 53, e20190535.
2. Hotez, P. J. (2018). Human parasitology and parasitic diseases: heading towards 2050. *Advances in parasitology*, 100, 29-38.
3. Molyneux, D. H. (2006). Control of human parasitic diseases: Context and overview. *Advances in Parasitology*, 61, 1-45.
4. Singh, N. (2023). Current Trends in Parasitic Diseases and Precautionary Measures. *Parasitic Infections: Immune Responses and Therapeutics*, 356-381.
5. Kowalec, M., Szewczyk, T., Welc-Falęciak, R., Siński, E., Karbowski, G., & Bajer, A. (2017). Ticks and the city-are there any differences between city parks and natural forests in terms of tick abundance and prevalence of spirochaetes?. *Parasites & Vectors*, 10, 1-19.

Calculation of ECTS points

Activity form	Activity hours*
Lecture	15
Preparation for the exam	15
Student workload	Hours 30
Number of ECTS points	ECTS 1

* hour means 45 minutes