

Study Programme: PHYTOMEDICINE			
Course Unit Title: APPLIED ZOOLOGY			
Course Unit Code: 19.FTM039			
Name of Lecturer(s): prof. Aleksandar Jurišić, PhD., prof. Aleksandra Petrović, PhD, doc. Ivana Ivanović, PhD			
Type and Level of Studies: Master academic studies			
Course Status (compulsory/elective): compulsory			
Semester (winter/summer): winter			
Language of instruction: english			
Mode of course unit delivery (face-to-face/distance learning): face-to-face			
Number of ECTS Allocated: 5			
Prerequisites: None			
Course Aims: Education and training students for independent identification and determination of bio-ecological characteristics of animal groups in nature (as free living organisms) and the laboratory conditions, important for agriculture, medicine and veterinary sciences. Training students for the breeding of important animal groups and application of appropriate control measures all in accordance with good agricultural practice, veterinary and medicine ethics.			
Learning Outcomes: Students who have theoretical and practical knowledge in the identification of biological material, knowledge in field of biology, ecology and ethology of given species, as well as the ability to adequately assess and apply appropriate control measures. Trained students in accurate monitoring of bio- and ecosystems.			
Syllabus: <i>Theory</i> Systematic and taxonomy of certain animal groups important to agriculture, veterinary and medicine. Biology, ecology and ethology of given animal groups. Vector capacity, ecological, ethological and sociobiological patterns of animal behavior. Predation and parasitism. The development of different behavior patterns influenced by numerous ecological and anthropological factors. Diurnal and other ecological rhythms, space-time orientation. Communication and social behavior. The breeding of important animal groups and their introduction in agroecosystems (natural enemies of phytophagous mites and nematodes). Control measures (with emphasize on biological control of phytophagous and parasitic species) and integrated pest management (definition, regulations, strength and weakness aspects). The application of monitoring systems in plant and environment protection. The concept and design of different control measures for potential pests organisms in zones with different levels of protection. <i>Practice</i> Taxonomy and identification of given animal groups. Preparation and making entomological and acarological collections. Basic principles of breeding certain animal groups. Application of appropriate experimental and laboratory methods. Forecasting models and warning systems for outbreak of free-living and occurrence of quarantine species.			
Required Reading: Hickman C.P., Roberts L.S., Larson A. (2001). Integrated principles of zoology. McGraw-Hill, USA. Krantz, G.W., Walter, D.E. (2009): A manual of acarology. Texas Tech University Press, USA. Chen, Z. X., Chen, S.Y., Dickson, D.W. (2003): Nematology - Advances and Perspectives. Volume II: Nematode Management and Utilization. Tsinghua University Press China & CABI Publishing UK/USA.			
Weekly Contact Hours:	Lectures: 30	Practical work: 30	
Teaching Methods: Lectures – oral, textual and illustrative / demonstrative methods. Practical classes - management of students' individual work and demonstrative / illustrative methods			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points

Active class participation	5	written exam	30
Practical work	5	oral exam	30
Preliminary exam(s)	30	
Seminar(s)			
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			