

Study Programme: Animal science
Course Unit Title: ANIMAL HYGIENE AND DISEASE PREVENTION
Course Unit Code: 19.ANM014
Name of Lecturer(s): Assoc. Prof. Miroslav I. Urosevic, PhD
Type and Level of Studies: Undergraduate academic studies, BSc.
Course Status (compulsory/elective): compulsory
Semester (winter/summer): winter
Language of instruction: English, German
Mode of course unit delivery (face-to-face/distance learning): face-to-face
Number of ECTS Allocated: 5
Prerequisites: No
<p>Course Aims:</p> <p>Introduction to the theoretical and practical principles of hygiene in modern livestock production, as well as its impact on the environment and sustainable development, taking into account global climate change. To acquaint students with basic characteristics of preventive measures of the most important infectious and non-infectious diseases of domestic and wild animals, the impact on production of food of animal origin and human health. The significance of the concept "One Health" and occurrence of highly contagious and exotic diseases, as well as zoonoses in modern livestock production. Use of biosecurity measures relating to facilities, animal feed, water and manure. Acquiring knowledge to current legislation in R. Serbia and the European Union on the above mentioned topic.</p>
<p>Learning Outcomes:</p> <p>The knowledge of students to independently define and solve the problems of hygiene in practical livestock production in accordance with the regulations of R. Serbia and the European Union. Ability of students to understand and apply basic preventive measures according to the occurrence and spread of infectious and non-infectious diseases of domestic and wild animals, as well as their economic significance. The students are trained to apply the basic principles of biosecurity measures on farms, understand the biorisks factors and their impact on productivity and disease occurrence in animals.</p>
<p>Syllabus:</p> <p><i>Theory</i></p> <p>The importance of zoohygiene; The concept of "One Health"; Climate change and the emergence of highly contagious and exotic diseases; Composition of atmospheric and stables air and their impact on health; Air pollutants from the aspect of livestock production; Natural and artificial ventilation; Radiation, physiological and hygienic significance of light; The hygiene and safety of feed and their impact on animal health; Hygiene and health safety of water; Regulations in R. Serbia and the European Union in relation to the hygiene of housing and keeping animals and waste materials in livestock production; Transport of animals - regulations in Serbia and the European Union; Soil hygiene; Disinfection; Disinsection; Rodent control; Production diseases and metabolic disorders and their economic significance; Suppression and prevention of the most economically important infectious and non-infectious diseases of domestic and wild animals; Importance biosecurity measures in livestock production (quarantine); Risk management, insurance of animals and infectious diseases.</p> <p><i>Practice</i></p> <p>Measurement of physical properties of air; Measurement of chemical properties of air; Air dust testing; Testing and</p>

evaluation of hygienic quality of water in the field, taking and sending water samples; Field exercises: Acquiring knowledge to veterinary and sanitary measures of disinfection, disinfection and deratization; Introduction to different systems of keeping and accommodation of certain species and categories of domestic animals. Examples of good practices in the application of biosecurity measures in animal husbandry, as well as compliance with the regulations of R. Serbia and the European Union.

Required Reading:

1. Anonymous (2022) General Public Factsheets; Animal Diseases General Public Factsheets, The Center for Food Security and Public Health, Iowa State University, USA <https://www.cfsph.iastate.edu/diseaseinfo/fastfacts/>
2. Anonymous (2022) Disease Topics, Veterinary Diagnostic and Production Animal Medicine, Iowa State University, USA <https://vetmed.iastate.edu/vdpam/research/disease-topics>
3. Anonymous (2017) One Health, Q&A, “WHO” (World Health Organization) <https://www.who.int/news-room/questions-and-answers/item/one-health>
4. Dewulf J. and Van Immerseel F. (2020) Biosecurity in Animal Production and Veterinary Medicine; CABI Publishing, Wallingford, Oxfordshire County, UK https://www.researchgate.net/publication/323626705_Biosecurity_in_animal_production_and_veterinary_medicine

Weekly Contact Hours: 3 + 2	Lectures: 45/ semester	Practical work: 30/ semester
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Teaching Methods: Lectures and Practical classes, Consultations on disposal

Knowledge Assessment (maximum of 100 points): 100

Pre-exam obligations	points	Final exam	points
Active class participation	5	written exam	15
Practical work	5	oral exam	50
Preliminary exam(s)	15		
Essay	10		

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.