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| **STUDY PROGRAMME:** | **Professional Undergraduate Study Programme *Agriculture*** Specific field of study: Zootechnics |
| **Course:** | **BIOSECURITY ON FARMS** |
| **Course code: 273304****Course status**: compulsory | **Semester: IV** | **ECTS credits: 4** |
| **Course holder:**  | **Tatjana Tušek,** Ph. D., professor of professional studies |
| **Course associates:**  | **Damir Alagić**, Ph. D., professor of professional studies |
| **Modes of delivery:** | **Number of hours**  |
| Lectures | 30 |
| Excersises, | 25 |
| Seminars | 5 |

**Course objectives:** To prepare students to be able to independently assess the health status of domestic mammals and poultry and to point out health problems in a timely manner and inform the competent services. To judge the reproductive status of animals and to use proper breeding while obtaining the optimal number of viable cubs. Assess the housing conditions of animals and their impact on the health status of domestic mammals and poultry and solve problems related to keeping animals.

**Course content**

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|  |  | **Modes of delivery:** | **Places of delivery** |
|  | **Course units**  | **L, E, S** |
|  | ***Infection - ways, paths, causative agents -*** what is the concept of infection, how does it occur, why is it important in animal breeding and how are animals protected from pathogens. | 2 L | Classroom |
|  | ***Clinical examination - TRIAS -*** what is included in the clinical examination, how and when the body's vital functions change. | 2 L | Classroom |
|  | ***Livestock traffic -*** modes of transport in accordance with positive legal norms and specifics regarding the type of animal. | 2 L | Classroom |
|  | ***Harmless removal of carcasses. -*** methods of harmless removal of carcasses; when and why is euthanasia prescribed. | 2 L | Classroom |
|  | ***Some parasitic diseases -*** certain parasitic diseases that occur most often in livestock breeding and their reflection on production results. | 3 L | Classroom |
|  | ***Some of the internal diseases of domestic animals*** - the most common internal diseases, reasons and conditions that lead to them. | 4 L | Classroom |
|  | ***Measures to prevent the occurrence and spread of infectious diseases*** - reasons for prescribing measures, who brings them and according to which criteria, and what they can be. The need for conformity of legal measures with other countries. | 2 L | Classroom |
|  | ***Some infectious diseases of domestic animals related to legal regulations*** - treatment of certain classic and also infectious diseases of recent times with the application of valid legal norms. The selection was made according to characteristic symptoms, but also according to the rigor of legal measures, mandatory prevention, prescribed diagnostic procedures, types of causative agents and possible threat to human health (zoonosis). | 9 L | Classroom |
|  | ***Diseases of cubs*** - familiarization with the health issues of cubs during and after birth. | 1 L | Classroom |
|  | ***Reproduction of domestic animals*** - the importance of regular breeding and the factors that influence it. Hormonal activity, dynamics and manifestation of estrus by species of domestic animals, pregnancy and birth. | 2 L | Classroom |
|  | ***Colloquium*** - general theoretical knowledge. | 1 L | Classroom |
|  | ***Injuries and consequences of injuries*** - assessment of the severity of injuries and factors that influence the decision to repair the injury. | 2 E | Practicum |
|  | ***Disinfection, disinsection and pest control*** - the importance of implementing disinfection, disinsection and pest control measures as preventive measures and the methods and dynamics of implementation; causative agents participating in the chain of transmission of infectious diseases. | 4 E | Practicum |
|  | ***Medicines*** - types of medicinal products, doses, the importance of respecting the withdrawal period, homeopathic methods of treatment. | 3 E | Practicum |
|  | ***Laboratory tests*** - types and purpose***,*** application in veterinary medicine. | 2 E | Practicum |
|  16. | ***Hoof hygiene related to housing and use*** - impact on production results. | 2 E | Practicum |
|  17. | ***The influence of accommodation, feeding and feed utilization on the occurrence of disease*** - the importance of microclimatic conditions, the concept of full and fed animals, what is meant by feed utilization. | 3 E | Practicum |
|  18. | ***Artificial insemination technology and reproduction*** - reasons for introduction of A.I., collection and evaluation of ejaculate, preparation of doses for A.I. and performance technique, introduction of newer technologies in reproduction (synchronized estrus, embryo transfer). | 4 E | Practicum |
|  19. | ***Topic of seminar I.*** | 1 S | Classroom |
|  20. | ***Topic of seminar II.*** | 1 S | Classroom |
|  21. | ***Topic of seminar III.*** | 1 S | Classroom |
|  22. | ***Topic of seminar IV.*** | 1 S | Classroom |
|  23. | ***Topic of seminar V.*** | 1 S | Classroom |
|  24. | ***Field excercises*** – course unit 4. | 5 E | Field trip |
| **In total** | **30+25+5** **(L+E+S)** |  |

**L=Lectures, E=Excersises, S=Seminars**

**Learning outcomes (LO)**

LO 1. Determine the changes that indicate disease states in the breeding of domestic animals.

LO 2. Create prerequisites for the proper accommodation and transport of domestic animals.

LO 3 Present disinfection, disinsection and pest control measures.

LO 4. Justify the importance of legal regulations in the prevention of the health status of domestic animals.

LO 5. Assess the physiological status of the sexual cycle and select a suitable breeding animal from a veterinary point of view.

LO 6. Evaluate the significance of the use of drugs in livestock production.

Course holder:

Tatjana Tušek, Ph. D, professor of professional studies

Križevci, July 2024