Course Unit Descriptor

Study Programme: Veterinary Medicine

Course Unit Title: Veterinary Epidemiology

Course Unit Code: 3IVM7O36

Name of Lecturer(s): Aleksandar S. Potkonjak, Dragan R. Rogan

Type and Level of Studies: Undergraduate 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: 4

Prerequisites: Statistics, Microbiology, Immunology, General and Special Pathological Morphology, General Clinical Diagnostics

Course Aims:

The course enables student to acquire: 1. knowledge about the objectives of epidemiology, applied epidemiology and validity of epidemiological research; 2. skills of application of methods of epidemiological research; and 3. skills of supervision and control of diseases of infectious and non-infectious etiology.

Learning Outcomes:

Upon completion of the course from this subject, student should be able to: 1. apply the basic the principles from epidemiology; 2. describe and analyze models of the causes of disease; 3. Select the type of study observation; 4. determine measures of the incidence of disease, as well as the measures of the predisposing / protective factors and diseases; 5. perform the analysis of the basic data that are important in epidemiology.

Syllabus:

Theory

Objectives and Methods of Epidemiological Research (Epidemiological research and causation, Measuring disease frequency (rate, risk, prevalence and odds), Epidemiological study design (cohort, case control, cross sectional and hybrid designs), Measuring effect (Rate ratio, risk ratio, prevalence ratio and odds ratio) and Measuring potential impact (attributable fractions). Validity of Epidemiological Research (validity, precision, types of error (systematic, random), hierarchy of populations, selection bias, information bias, confounding bias). Applied epidemiology (questionnaire design, sampling and study size estimation, epidemiological analysis (simple, stratified), surveillance and monitoring of disease, evaluation of diagnostic tests).

Practice

Epidemiological studies analysis. Gathering and assessment of epidemiological data. Calculations and analysis of results. Designing of epidemiological studies. Solving of epidemiological cases.

Required Reading: Valčić M. Opšta epizootiologija. Autor je izdavač, Beograd, 1998., Thrusfield M. Veterinary epidemiology. Third edition, Wiley-Blackwell, 2007., Dohoo I. et al. Veterinary Epidemiologic Research, First edition, AVC Inc., 2003., Toma B. et al. Dictionary of veterinary epidemiology. First edition, Iowa State University Press, 1999.

| Weekly Contact Hours: | Lectures: 3 | Practical work: 2 | | | |
|---|-------------|-------------------|--|--|--|
| Teaching Methods: Lectures, Practical classes, Consultations, research work | | | | | |
| Knowledge Assessment (maximum of 100 points): | | | | | |

| Pre-exam obligations | points | Final exam | points | |
|---|--------|---------------|--------|--|
| Active class | 0 | written exam | 70 | |
| participation | Ŭ | witten exuiti | | |
| Practical work | 0 | oral exam | 0 | |
| Preliminary exam(s) | 30 | | | |
| Seminar(s) | 0 | | | |
| The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, | | | | |
| project presentation, seminars, etc. | | | | |