Diseases of Farm Animals [19]

COURSE OUTLINE

(1) GENERAL

SCHOOL	ANIMAL BIOSCIENCES		
ACADEMIC UNIT	DEPARTMENT OF ANIMAL SCIENCE		
LEVEL OF STUDIES	Undergraduate [Required]		
COURSE CODE	**19**	**SEMESTER**	**8th**
COURSE TITLE	DISEASES OF FARM ANIMALS		

INDEPENDENT TEACHING ACTIVITIES	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures	3	
Laboratory exercises	3	
TOTAL	**6**	**5**

COURSE TYPE	Scientific area
PREREQUISITE COURSES:	
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK
IS THE COURSE OFFERED TO ERASMUS STUDENTS:	Yes (in English)
COURSE WEBSITE (URL):	https://mediasrv.aua.gr/eclass/courses/EZPY140/
TEACHING STAFF:	Papadomichelakis G.

(2) LEARNING OUTCOMES

Learning outcomes

The course is focused at the main microbial and parasitic diseases of farm animal, emphasizing on their aetiology, pathogenesis, clinical manifestation and control.
Upon successful completion, it is expected that the student will have acquired a satisfactory level of knowledge regarding:
- Microbial and parasitic diseases of farm animals
- Their impact on animal production and public health
- The principles that govern the measures applicable for their control

With regards to Bloom the student will be able to:
- Understand the aetiology, pathogenesis, symptoms and measures of prevention of the main microbial and parasitic diseases of farm animals [KNOWLEDGE]
- Understand the principles of their diagnostic investigation [KNOWLEDGE]
- Comprehend the clinical indications of infectious diseases [COMPREHENTION, APLICATION]
- Combine theoretical knowledge and practical training for the analysis of the scientific information that is available internationally, in connection to the field of infectious diseases of animals [ANALYSIS]

General Competences

- Investigate, analyse and compose data and information, using the appropriate technical means
- Autonomous work
- Decision making
- Team work
- Promote free, creative, and conductive thinking

(3) SYLLABUS

A. THEORY

1. Introduction to the Infectious Diseases of Animals
    - Impact of infectious diseases and terminology
    - Predisposing factors to infectious diseases
    - Host-pathogen interaction

- Microbial flora, disease and health
- Epigenetics
- Laboratory diagnostic investigation of infectious diseases
- Control of infectious diseases

2. Bacterial Diseases
   - Aetiology, Pathogenesis, Clinical manifestation, epizootiology, epidemiology, diagnosis, control and prevention of the following diseases: Tuberculosis, Brucellosis, Paratuberculosis, Anthrax, Salmonellosis, Enterotoxaemia, Colibacillosis, Listeriosis, Mycoplasmosis.
3. Viral Diseases
   - Introduction to Virology, Classification of viruses
   - Biological characteristics and diseases caused by viruses of the Families Picornaviridae, Reoviridae, Togaviridae, Alphaviruses, Flaviviruses, Rhabdoviridae, Retroviridae, Orthomyxoviridae, Paramyxoviridae, Coronaviridae, Arteriviridae.
4. Parasitology and Parasitic Diseases
   - Veterinary Parasitology: Types and classification of parasites, types of hosts, life cycles, infections induced by parasites, pathogenesis of parasitic diseases, parasites and public health.
   - Endoparasites and Endoparasitoses. Nematode parasites and parasitic diseases: Morphology, life cycle, pathogenesis, clinical manifestation, pathology, diagnosis, prevention.
   - Trematodes, Cestodes and Coccidia: Morphology, life cycle, pathogenesis, clinical manifestation, pathology, diagnosis, prevention.
   - Ectoparasites and Ectoparasitoses, Arthropods: Strategies of prevention at farm level.

B. LABORATORY AND CLINICAL TRAINING

1. Animal anatomy and principles of clinical examination.
2. Basic principles of propedeutic pathology.
3. Methodology of clinical examination of animals.
4. Clinical handling of productive animals, collection of samples.
5. Assessment of individual indicators of health and welfare.
6. Health of the udder: Methodology of clinical diagnostic investigation of cases of mastitis.
7. Basic principles of vaccination in farm animals.
8. Administration of therapeutic substances and vaccines to productive animals.
9. Use of ultrasound for pregnancy diagnosis and the evaluation of farm animal health.
10. Disease investigation scenario in a livestock farm – I.
11. Disease investigation scenario in a livestock farm – II.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	Face-to-face – Classroom discussion, Distance learning through the Eclass platform and MS Teams
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	Internet (infographics, videos), communication via e-mail, exploitation of electronic platforms to support teaching (e.g. open e-class, e-student, Microsoft teams)
TEACHING METHODS	

Activity	***Semester workload***
Non-supervised study	30
Interactive teaching - lectures	40
Research essay	15
Laboratory practice	20
Clinical practice	20
Course total (25 h of workload per ECTS)	***125***

STUDENT PERFORMANCE EVALUATION	Student evaluation consists of 2 parts: Written and practical exams with short answer and multiple-choice questions. Written and/or oral essays that are assigned on voluntary basis, on subjects relevant to the course and of interest to the student (subjects are defined after discussion with the tutor and add a 50% bonus on the final grade). The evaluation of Erasmus students relies on essays and an oral examination conducted face-to-face after the presentation of each essay

(5) ATTACHED BIBLIOGRAPHY

Lecture notes

The Merck Veterinary Manual

Scientific Journals:
Veterinary Microbiology
Veterinary Parasitology
Veterinary Science
Veterinary Journal
Veterinary Record