COURSE LAYOUT

1. GENERAL

SCHOOL	Animal Biosciences		
DEPARTMENT	Animal Science		
STUDY LEVEL	*Undergraduate – Compulsory*		
COURSE CODE	1690	**SEMESTER**	9th
COURSE TITLE	Health of Farm Animals		

INDEPENDENT TEACHING ACTIVITIES	**WEEKLY TEACHING HOURS**	**ECTS**
Theory	3	
Laboratory Training	2	
	5	5

COURSE TYPE	Scientific Area
PREREQUISITES	--
LANGUAGE	Greek (English for Erasmus students)
IS THE COURSE OFFERED forERASMUS STUDENTS?	Yes
COURSE WEB PAGE	https://mediasrv.aua.gr/eclass/courses/EZPY141/

2. LEARNING OUTCOMES

Learning Outcomes

Health is the outcome of the dynamic interaction between numerous factors, anatomical, environmental, microbial, parasitic, etc. The subject of Animal Health and the main learning outcome of the course Health of Farm Animals is the study of these factors and of their interaction towards maintaining health, especially in connection with the following:

- Host-pathogen interaction.
- Management of farm animals and animal health.
- Stress and animal welfare.
- Genetic predisposition.

Upon successful completion, it is expected that the student will have acquired a satisfactory level of knowledge regarding:

- The factors that define animal health and welfare, especially in connection with animal production and exposure to microbial pathogens
- The measures applied to manage animal health
- The principles of the relevant laboratory investigation

With regards to Bloom the student will be able to:

1. Understand the association between animal anatomy, physiology, immunity, nutrition and animal husbandry [KNOWLEDGE]

2. Understand the principles of animal production, which aim to the preservation of animal health and the protection of public health [KNOWLEDGE]
3. Apply the main tests of laboratory investigation in connection with animal health (molecular biology, serology) [COMPREHENTION, APLICATION]
4. Combine theoretical knowledge and practical training for the analysis of the scientific information that is available internationally, in connection with infectious diseases of animals and genetic predisposition [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. COURSE CONTENT

A. THEORY

- Introduction to Animal Health (definitions, basic principles).
- Zoonotic diseases and their control.
- Intensive/Extensive/Organic Farming and Animal Health.
- Food born diseases.
- Hygiene of food of animal origin.
- Hygiene of the udder.
- Modern methods of animal husbandry and management of farm animals.
- Basic principles of decontamination and disinfection.
- Animal housing and measures of hygiene in farms of cattle, sheep, goats, swine and fowl.
- Animal health and financial sustainability of the farm.
- Regulatory contact and authorities at national and European level.

B. LABORATORY TRAINING

- Principles of laboratory testing.
- Principles of sample collection and transportation.
- Isolation of DNA from samples collected from farm animals.
- PCR for the detection of microbial pathogens.
- Submerged gel electrophoresis.
- Methods of anesthesia and animal culling.
- Assessment of housing conditions of farm animals.

- Hygiene and milking.

4. TEACHING and LEARNING METHODS - Evaluation

TEACHING METHOD	Face-to-face Distant learning through the Eclass platform and MS Teams
USE OF INFORMATICS and COMMUNICATION TECHNOLOGIES	• PowerPoint presentations and Internet (literature, visual training material). • E-learning platform http://zp.aua.gr/el/content/eA/virtual • Communication by e-mail and e-class. • Lectures available through e-class platform. • Training in a virtual molecular laboratory (open access http://learn.genetics.utah.edu/content/labs/extraction).
TEACHING ORGANISATION	
STUDENTS EVALUATION	Student evaluation consists of 2 parts: Written and practical examination, the latter corresponding to the syllabus of the laboratory exercises. Students are encouraged to retain on voluntary basis, a Personal Evaluation Booklet (PEB), in which the tutor records the score of the essays undertaken by the student and any other achievement. The scores recorded in the PEB can only benefit the student (the PEB score cannot have a negative impact on the final score). The use of the PEB score is applicable each time the student sits the exam for the course. Detailed instructions for the use of PEB and the course examination are available from the beginning of the semester through e-class, and they are explained in class.

Activities	***Workload per semester***
Lectures	Non-supervised study 55
Practical training	Lectures 20
Clinical training	Practical training 20
Research essay	Clinical training 15
Mock exams	Research essay 10
Field trip	Mock exams 5
	Field trip 5
Total contact hours and training	***125***

	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). Scores are recorded in PEB (PEB score), in the form of a percentage and can be up to 50% of the score corresponding to written examination, if higher than 4, and is added to the latter, formulating the final score. The evaluation of Erasmus students relies on essays and an oral examination conducted face-to-face after the presentation of each essay.

5. BIBILIOGRAPHY

-Books:

The Merck Veterinary Manual

-Scientific Journals:

Journal of Veterinary Medicine and Animal Health
Tropical Animal Health and Production
Journal of Etiology and Animal Heath