

Course Syllabus

Course: *Animal Health and Disease*

Department: *Biology*

Host Institution: *University of Nicosia, Cyprus*



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Semesters

Course Summary

Course Code	Course Title	ECTS Credits
BIOL-315	Animal Health and Disease	6
Subject	Contact Hours	Prerequisites
Animal Science	42-45	Two Biology Courses
Department	Level of Course	Language of Instruction
Biology	Upper-Division	English

Course Description

This course is designed for the pre-veterinary, animal science or zoology student to gain working knowledge of the health issues confronting animals in Cyprus and the Mediterranean region. The course is introductory but intense, with field studies intentionally built into the schedule to accommodate individual interests of the students taking the course. Classroom sessions on biosecurity systems, animal health, and animal welfare lay the foundation of knowledge needed to explore animal disease issues.

Prerequisites (if applicable)

Junior Standing, Two College-Level Biology Courses.

Learning Outcomes

The aim of the course is to provide students with a general knowledge on health protection and safeguard of the wellbeing of animals in the Mediterranean region. Additionally, veterinary care such as preventive medicine, reproduction management, surveillance, eradication and monitory programs on animal diseases will be observed. Field studies will provide students with hands-on experience and problem-solving skills that will assist them while developing careers related to animal health.

Course Outline

1. Introduction to the immune system and disease
 - 1.1 Host Defence Mechanisms Against Infection
 - 1.2 Clinical and subclinical diseases
 - 1.3 Group of people concerned about the animal's health
 - 1.4 Infectious diseases: Bacteria, Viruses / Prion, Parasites, Fungi
 - 1.5 Non-infectious diseases: Metabolic diseases, genetic diseases, welfare related health problems
2. Mold and fungi related diseases
 - 2.1 Ringworm
 - 2.2 Types of mycotoxicosis
 - 2.3 Preventing and mitigating measures
3. Metabolic diseases
 - 3.1 Dystocia
 - 3.2 Retained placenta
 - 3.3 Ketosis
 - 3.4 Rumen acidosis
 - 3.5 Milk fever
 - 3.6 Displaced abomasum
 - 3.7 Udder Edema
4. Parasites related diseases
 - 4.1 Endoparasites
 - 4.1.1 Coccidiosis
 - 4.1.2 Cryptosporidiosis
 - 4.1.3 Ascaridiosis
 - 4.2 Ectoparasites
 - 4.2.1 Tick
 - 4.2.2 Mites
 - 4.2.3 Flies
 - 4.2.4 Flea
5. Bacterial related diseases
 - 5.1 Listeria
 - 5.2 Leptospira
 - 5.3 Chlamydia
 - 5.4 Brucella
 - 5.5 Campylobacter
 - 5.6 Clostridium
 - 5.7 Escherichia coli
 - 5.8 Streptococcus
 - 5.9 Antibiotic resistance
 - 5.10 Alternatives to antibiotics
6. Lameness

- 6.1 Infectious diseases-
 - 6.1.1 Mortellaro disease
 - 6.1.2 Foot rot
 - 6.1.3 Necrobacillosis
 - 6.2 Non infectious diseases-
 - 6.2.1 Laminitis
 - 6.2.2 Sole ulcers
 - 6.2.3 White line disease
 - 6.2.4 Cork screw claws
 - 6.2.5 Sole abscess
 - 6.3 Hoof trimming
 - 6.4 Footpaths
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- 7. Viral related diseases
 - 7.1 Porcine epidemic diarrhea
 - 7.2 Transmissible gastroenteritis
 - 7.3 Rotaviral diarrhea
 - 7.4 Porcine circovirus
 - 7.5 Poultry Newcastle disease
 - 7.6 Infectious bronchitis
 - 7.7 Gumboro diseasedealuation

Evaluation and Grading

Midterm Exam: **20%**
 Final Exam: **40%**
 In-Class Participation: **20%**
 Field Study Participation: **20%**

Readings and Resources

Required Texts

Handouts and Articles Provided.

Optional Reading

1. The Merck Veterinary Manual, 8th Ed., Merck & Co., ISBN: 009-11910298.
2. Animal Sciences: The Biology, Care and Production of Domestic Animals (4th edition), J.R. Campbell, M. D.
3. Council Directive 98/58/EC of July 1998. Protection of Farmed Animals.
4. Council Directive 2007/43/EC of 28 June 2007. Laying Down Minimum Rules for the Protection of Chickens Kept for Meat Production.
5. Council Directive 1999/74/EC of 19 July 1999. Laying Down Minimum Standards for the Protection of Laying Hens.
6. Council Directive 91/630/EEC of 19 November 1991. Laying Down Minimum Standards for the Protection of Pigs.
7. Council Directive 2008/119/EC of 18 December 2008. Laying Down Minimum Standards for Protection of Calves.
8. Council Regulation (EC) No 1/2005 of 22 December 2004. On the Protection of Animal During Transport.
9. Council Regulation (EC) No. 1099/2009 of 24 September 2009. On the Protection of Animals at the Time of Killing.

Other Academic Policies

Class attendance is compulsory. If unable to attend a class, students must inform the course lecturer in advance. A maximum of 20% excused absences is tolerated; however beyond this percentage, students will be withdrawn from the course. Moreover, any work missed due to absence must be completed on return to class.