

Global Semesters

Course Syllabus

Course: Animal Health and Disease

Department: Biology

Host Institution: University of Nicosia, Nicosia, Cyprus

Course Summary		
Course Code	Course Title	Recommended Credit Hours
BIOL-315	Animal Health and Disease	3
Subject	Contact Hours	Prerequisites
Animal Science	42-45	Junior standing, 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. About half of the students' time will be spent at field studies involving cattle, sheep goat poultry and swine, as well as companion animals.

Prerequisites (if applicable)

Junior standing and two college-level biology courses.

Instructor Information

Klitos ANDREOU DVM MSc

Graduate of the Veterinary school Aristotelian University Greece

Post Graduate studies at the University of Surrey UK

Practical experience in production and control of biological products, Budapest Hungary and Brescia Italy

Head of Office on Animal health and animal welfare MANRE Cyprus

Member of the team for the implementation of surveillance, eradication and monitoring programs for animal diseases.

Member of the Committee for the control of vet medicinal products MANRE Cyprus

Member of the team for the organization of educational seminars a) for the staff of Veterinary Services MANRE Cyprus. b) for the members of the pancyprian cattlemen association c) for the staff of animal feed producers.

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 monitoring programs on animal diseases and treatment of animal waste 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

Topic areas to be covered are selected from the following depending on the needs and characteristics of the class:

1. General knowledge of pharmacology and therapeutics;
2. Good Hygiene Practice : Cleaning, Disinfection, Sanitation, Animal Health Management Effect of environment on animal function and performance; Animal housing requirements, and animal welfare aspects.
3. Essential anatomy and Physiology of Cattle, Sheep, Goat, Swine and Poultry (Skeletal-muscular, cardiovascular, respiratory, digestive, nervous, urinary system).
4. Animal disease management (biosecurity measures, management of pregnant and lactating animals,)
5. Classification of animal diseases – Study of major diseases
6. Parasitic Diseases
7. Diseases and disorders of lactating cow (mastitis, Udder edema, dystokia, milk fever, ketosis), and calves (pneumonia, diarrhea)
8. Poultry Diseases
9. Swine diseases
10. Reproduction (reproductive anatomy and physiology, mating systems)
11. Waste, carcasses disposal

Evaluation and Grading

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

- The Merck Veterinary Manual, 8th Ed., Merck & Co., ISBN: 009-11910298
- Animal Sciences: The Biology, Care and Production of Domestic Animals (4th edition), J.R. Campbell, M. D.
- Council Directive 98/58/EC of July 1998. Protection of Farmed Animals
- Council Directive 2007/43/EC of 28 June 2007 laying down minimum rules for the protection of chickens kept for meat production.
- Council Directive 1999/74/EC of 19 July 1999 laying down minimum standards for the protection of laying hens

- Council directive 91/630/EEC of 19 Nov. 1991 laying down minimum standards for the protection of pigs
- Council Directive 2008/119/EC of 18 Dec. 2008 laying down minimum standards for protection of calves
- Council Regulation (EC) No 1/2005 of 22 Dec. 2004 on the protection of animal during transport.
- Council Regulation (EC) No. 1099/2009 of 24 Sept. 2009 on the protection of animals at the time of killing

Other Academic Policies

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.