Universitat Autònoma de Barcelona

2019/2020

Animal Health II

Code: 102614
ECTS Credits: 5

Degree	Type	Year	Semester
2502445 Veterinary Medicine	OB	3	2

Contact

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Use of Languages

Principal working language: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: Yes
Some groups entirely in Spanish: No

Teachers

Mariano Domingo Álvarez
David Ferrer Bermejo
Margarita Martín Castillo
Enrique María Mateu de Antonio
Laila Darwich Soliva
Ana Maria Ortuño Romero

Prerequisites

There are no official prerequisites. In any case, it is recommended to review the contents of the subjects: Animal Health I, Microbiology, Microbiology and Applications, Parasitology and Epidemiology and Statistics.

Objectives and Contextualisation

Animal Health II is a subject in the second semester of the third year of the Degree in Veterinary Medicine. It is part of Animal Health that has been organized by animal species in three semesters. In this subject we study the infectious and parasitic diseases that affect ruminants (cows, sheep and goats) and birds (mainly chickens but also other species of economic and faunal interest).

The training objectives are:

- Understand the basic concepts and methodology used in the study of infectious and parasitic diseases.

- Understand the pathogenesis of the most important infectious and parasitic diseases of domestic animals and relate it to the most characteristic clinical signs and lesions.

- Make differential diagnoses based on the epidemiology, clinical signs and observable lesions in animals.

- Obtain appropriately samples from an animal or a flock, as well as know how to properly carry out your processing in the laboratory.

- Know how to apply and interpret the most common laboratory techniques in the context of infectious and parasitic diseases.

- Prepare a diagnosis and a pattern of action in a case of an outbreak of an infectious-contagious disease.

Competences

- Analyse, synthesise and resolve problems and make decisions.
- Collect, preserve and issue all types of samples with the corresponding report.
- Diagnose different individual and collective animal diseases, and know about prevention measures, with emphasis on zoonoses and notifiable disease.
- Diagnose the most common diseases using different general and instrumental techniques.

Learning Outcomes

1. Analyse, synthesise and resolve problems and make decisions.
2. Apply and interpret the commonest laboratory techniques to diagnose and prevent infectious and parasitical diseases in domestic animals and other useful species.
3. Define the basic concepts and methodology used in the study of animal health.
4. Distinguish the main parasitical diseases that affect domestic and useful animals.
5. Evaluate the importance and appropriateness of necropsy as a method for diagnosing disease.
6. Evaluate the importance of infectious and parasitical diseases in the field of animal health, public health and animal productions.
7. Identify the characteristic lesions of diseases in domestic and wild species.
8. Obtain appropriate samples from an animal or herd, and send to and process the samples in the laboratory.
9. Perform differential diagnoses on the basis of epidemiology, clinical signals and observable injuries in animals.
10. Produce action guidelines for a case or outbreak of an infectious-contagious disease.
11. Properly apply anatomopathological nomenclature and use suitable terminology in the field of infectious and contagious diseases.
12. Recognise the pathogeny of diseases in domestic animals, and establish suitable associations between lesions, etiology and clinical signals.

Content

In this subject we will study the main viral, bacterial and parasitic diseases of ruminants and birds of importance in veterinary medicine. This implies the study of its etiology, pathogenesis, clinical presentation, diagnosis, control and prevention. In those of parasitic origin, the parasite-host relationships, the recognition and identification of responsible parasites are also considered. On the other hand, the economic and health importance of different diseases in the livestock and poultry sectors is also included.

Program

Ruminants (29 h)

- Respiratory diseases (5 hours). Bovine respiratory complex and pneumonia in small ruminants. Parasitic diseases of the respiratory system.

- Digestive and hepatic diseases(10 hours). General picture of enteritis and diarrhea. Infectious and parasitic diarrhea. Digestive and hepatic helminthoses.

- Reproductive system diseases (4 hours). General picture of reproductive and abortive diseases. Abortions of infectious and parasitic origin.

- Cutaneous diseases (3 hours). General picture of skin diseases. Skin processes of infectious and parasitic origin.

- Nervous system diseases (2 hours). General picture of nervous diseases. Infectious diseases of the nervous system.

- Haematological diseases (2 hours). Main infectious and parasitic diseases of the blood and related tissues.

- Health programs in ruminants (Preventive Medicine) (3 h). Control programs. Vaccination programs. Deparasitation programs.

Birds (15 h)

- Digestive diseases (4 h). General picture of digestive diseases. Infectious and parasitic diseases of the digestive system.

- Respiratory diseases (5 h). General picture of respiratory diseases. Infectious diseases of the respiratory system.

- Lymphohematopoietic diseases (3 h). General picture of diseases related to the lymphohematopoietic system.Infectious and immunosuppressant diseases.

- Infectious diseases of the locomotor system and the nervous system (1 h)

- Skin diseases. Arthropodoses (1 h)

- Health programs (preventive medicine) (1 h)

Methodology

This subject applies de following methodology:

1. Lectures:

The student acquires the own knowledge of the subject attending the master classes and complementing them with the personal study of the topics explained. The master classes are conceived as a fundamentally unidirectional method of transmitting knowledge from the teacher to the student.

2. Tutorials:

The tutorials allow to establish a direct dialogue between student and teacher which emphasizes the orientation and motivation of the former, especially in relation to self-learning.

3. Self-learning:

Part of the theoretical contents are exposed through the resolution of problems or clinical cases ("problem based learning") that the student must develop. The student is provided with the objectives and the means to achieve it, so that the student establishes to a certain extent their learning rhythm in the resolution of problems and clinical cases.

The teaching material used in the course will be available on the Virtual Campus. This LMS will also be used as a mechanism for the exchange of information and documents between the teaching staff and the students.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Lectures	44	1.76	1, 11, 2, 3, 4, 10, 9, 7, 12, 5, 6
Type: Supervised			
Tutorials	4	0.16	1, 11, 3, 4, 7, 12, 6
Type: Autonomous			
Autonomous learning	54	2.16	1, 11, 2, 3, 4, 10, 9, 7, 12, 5, 6
Self-learning	20	0.8	1, 11, 2, 3, 4, 10, 9, 7, 12, 5, 6

Assessment

The evaluation will be individual and will be carried out according to the different training activities that have been programmed. It will be organized by evaluating each one of the blocks that integrate the subject. To pass the subject, a minimum score must be obtained in each of the parts. The weighting of the different scores obtained will be as follows:

1-Block of Ruminants:

The score is based on the evaluation of two clinical cases (23%) and the theoretical contents (test) corresponding to ruminant diseases (77%). It is an indispensable requirement to pass this block to have obtained a minimum score in each of the parts.

2- Block of Birds:

The score is based on the evaluation of one clinical case (20%) and the theoretical contents (test) corresponding to the diseases of the birds (80%). It is an indispensable requirement to pass this block to have obtained a minimum score in each of the parts.

The final grade of Animal Health II will be established as a weighted average between the two blocks that make up (65% of the ruminant block and 35% of the poultry block). It is necessary to pass the two blocks of contents in order to pass the subject.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Clinical cases evaluation (ruminants 15% + poultry 7%)	22%	0	0	1, 11, 2, 3, 4, 10, 9, 7, 8, 12, 5, 6
Test about theoretical contents of bird diseases	28 %	1.5	0.06	1, 11, 2, 3, 4, 10, 9, 7, 8, 12, 5, 6
Test about theoretical contents of ruminant diseases	50 %	1.5	0.06	1, 11, 2, 3, 4, 10, 9, 7, 8, 12, 5, 6

Bibliography

Bibliography (ruminants)

- Radostits, O.M., Gay C.C., Hinchcliff K.W., Constable P.D. (2007). Veterinary Medicine: A textbook of the diseases of cattle, horses, sheep, pigs and goats, 10th ed. (Radostits, Veterinary Medicine). Saunders Ltd. ISBN-10: 0702027774

- Blowey R., Weaver A.D. (2011). Color Atlas of Diseases and Disorders of Cattle, 3rd ed. Mosby. ISBN-10: 0723436029 (http://www.sciencedirect.com/science/book/9780723436027)

- Kapil S.K., Scott D. (2010). Emerging, Reemerging, and Persistent Infectious Diseases of Cattle, An Issue of Veterinary Clinics: Food Animal Practice, 1st. ed. (The Clinics: Veterinary Medicine). Saunders ISBN-10: 143771885X

- Aitken I.D. (2007). Diseases of sheep. 4a ed. Wiley Blackwell (UK)ISBN-10: 1405134143

- Pugh D.G., Baird N. (2011). Sheep and Goat Medicine, 2nd. ed. Saunders, ISBN-10: 1437723535. (http://www.sciencedirect.com/science/book/9781437723533)

Webs (ruminants)

http://w3.vet.cornell.edu/virtualvet/Bovine/default.aspx (Atlas de necròpsia i malalties del boví)

http://www.thecattlesite.com/diseaseinfo/

http://parasitosdelganado.net/

Bibliography (poultry)

- Charlton, B.R. (editor) (2006). Avian Disease Manual (6th ed.). American Association Avian Pathologists.

- Pattison, M., McMullin, P. Bradbury J.M., Alexander, D. (2008). Poultry diseases (6th ed.). WB Saunders, Londres. ISBN: 978-0-7020-2862-5.

(http://www.sciencedirect.com/science/book/9780702028625)

- Saif, Y.M. (ed.-in-chief) (2008). Diseases of poultry (12th ed.). Blackwell Publishing.

- Randall, C.J. (1991). A colour atlas of diseases and disorders of the domestic fowl and turkey (2a ed.). C.V. Mosby-Wolfe.

- Conway, Donal P. McKenzie, Elizabeth M. (2007). Poultry coccidiosis: diagnostic and testing procedures.

Webs (poultry)

http://partnersah.vet.cornell.edu/avian-atlas/ (Atlas de malalties aviars)

http://www.thepoultrysite.com/publications/6/Diseases_Of_Poultry

http://www.poultryhub.org/poultrypedia/

http://poultrymed.com/Poultry/index.asp

http://www.msstate.edu/dept/poultry/extdis.htm