

**Animal Health II**

Code: 102614  
ECTS Credits: 5

**2024/2025**

Degree	Type	Year
2502445 Veterinary Medicine	OB	3

## Contact

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## Teachers

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## Teaching groups languages

You can view this information at the [end](#) of this document.

## 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 parasitological 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 parasitological 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 parasitological 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)

### Activities and Methodology

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

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.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

## Assessment

### Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Test about theoretical contents of bird diseases	35 %	1.5	0.06	1, 11, 2, 3, 4, 10, 9, 7, 8, 12, 5, 6
Test about theoretical contents of ruminant diseases	65 %	1.5	0.06	1, 11, 2, 3, 4, 10, 9, 7, 8, 12, 5, 6

1. Ruminant block. The evaluation of the content is based on a written exam consisting of test-type questions (50% of the block), short questions (30%) and essay questions (20%).

A minimum grade of 5 is an essential requirement to pass this block.

2. Poultry block. The evaluation of the content is based on a written exam consisting of test-type questions (50% of the block), short questions (30%) and essay questions (20%).

A minimum grade of 5 is an essential requirement to pass this block.

The final mark for Animal Health II will be established as a weighted average between the two blocks that make it up (65% mark for the ruminant block and 35% mark for the poultry block). Both blocks of content must be passed with a minimum grade of 5 in order to pass the subject.

A non-evaluable will be applied when the student has not taken any of the exams.

Unique evaluation

In this case the evaluation will consist of two simultaneous written exams with the same methodology and weighting as those described above and scheduled on the same day as the recovery exam of the continuous evaluation modality.

The same recovery system will be applied as for the continuous evaluation.

The review of the final qualification follows the same procedure as for the continuous evaluation.

A non-evaluable will be applied when the student has not taken any of the exams.

## 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, 10<sup>th</sup> 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, 1<sup>st</sup> 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, 2<sup>nd</sup> 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.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>

## Software

No need to install or use any specific software

## Language list

Name	Group	Language	Semester	Turn
(TE) Theory	1	Catalan	second semester	afternoon
(TE) Theory	2	Catalan	second semester	afternoon