

## Dermatology

Code: 104667  
 ECTS Credits: 3

Degree	Type	Year	Semester
2502445 Veterinary Medicine	OT	5	0

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

### Contact

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### Use of Languages

Principal working language: english (eng)

Some groups entirely in English: Yes

Some groups entirely in Catalan: No

Some groups entirely in Spanish: No

### Teachers

Laura Ordeix Esteve

### Prerequisites

We strongly recommend the students to review the "Dermatology" lecture of the course "Medicina i Cirurgia d'Animal de Companyia I" ["Diagnostic approach to the dermatologic patient"] where the main diagnostic steps are discussed (History, physical examination, identification and description of lesions, definition of the problem, differential diagnosis, diagnostic tests), before the beginning of the course.

### Objectives and Contextualisation

After completing the course, the students are expected to:

1. Take a clinical history and perform a complete dermatologic examination, using the appropriate dermatologic terminology to effectively describe the lesions and the clinical picture of the patient.
2. Based on history and physical examination, produce a differential diagnosis (3-4 diseases) for common dermatologic problems of the dog and cat.
3. Perform and use basic diagnostic techniques (skin scrapings, cutaneous cytologies, skin cultures, skin biopsies, otoscopic examination, ...).
4. Determine a diagnosis, according to the results of the diagnostic tests and to develop a strategy to manage the skin disease of the patient.
5. Recognize the clinical presentation, diagnosis and treatment of the most common cutaneous diseases of the dog and cat (35-40 diseases)
6. Use critically textbooks and veterinary/medical journals to find up-to-date and useful information on the diagnosis and treatment of the cutaneous disease of one patient.

## **Competences**

- Analyse, synthesise and resolve problems and make decisions.
- Apply scientific method to professional practice, including medicine
- Attend to emergencies and perform first aid in veterinary science.
- Collect, preserve and issue all types of samples with the corresponding report.
- Comunicar la informació obtinguda durant l'exercici professional de manera fluïda, oralment i per escrit, amb altres col·legues, autoritats i la societat en general.
- Demonstrate knowledge of the rights and duties of the veterinarian, with a special focus on ethical principles
- 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.
- Have basic knowledge of the profession, and in particular of the organisation and functions of professional practice.
- Make clinical records and accurate and complete clinical exploration of animals.
- Perform basic analytical techniques and interpret the clinical, biological and chemical results, and interpret the results of tests generated by other laboratories.
- Perform the most common medical and surgical treatments of animals.
- Prescribe and dispense medicines correctly and responsibly in accordance with legislation, and ensure that the medicines and waste are stored and eliminated properly.
- Recognise ethical obligations in the exercise of responsibilities in terms of the profession and society.
- Recognise when euthanasia is necessary and perform it humanely by employing the appropriate method.
- Safely perform sedations and regional and general anaesthesia, and evaluate and control the pain.
- Seek and manage information related with professional activity

## **Learning Outcomes**

1. Analyse, synthesise and resolve problems and make decisions.
2. Apply ethical values that govern the behavior of veterinarians in clinical practice in relations with other veterinarians.
3. Apply scientific method to professional practice, including medicine
4. Communicate information obtained during professional exercise in a fluid manner, orally and in writing, with other colleagues, authorities and society in general.
5. Defend the ethical values that determine the decision making in diagnostic procedures, medical or surgical treatment or any medical procedure, subject to the rights of animals and their owners.
6. Define the problems found in physical examinations or clinical record of an animal, and produce a list of problems, differential diagnosis and the diagnostic protocol in all clinical specialities and for different species.
7. Diagnose and treat the main dermatological disorders that affect small, equine and exotic animals.
8. Fill in anamnesis and exploration records in all clinical specialities.
9. Have basic knowledge of the profession, and in particular of the organisation and functions of professional practice.
10. Identify the biopsy techniques that can be applied for obtaining samples of different organs and tissues.
11. Identify the conditions in which euthanasia is the only possible option, or the most suitable, depending on the general state of the sick animal and appropriately propose this to the owners.
12. Perform cytology (surface masses, skin, ear, conjunctive...), recognise the indications and limitations, fixate and stain cells, and defend interpretations.
13. Perform differential diagnoses and diagnostic plans, taking into account the available complementary techniques applied to all clinical specialities and different species.
14. Perform the basic surgical procedures of different clinical specialities and take samples in small, equine, exotic and zoo animals.
15. Plan the most suitable anaesthetic protocol depending on the animal species and the general state of the patient, as well as the type of intervention required.
16. Properly calculate the doses of medicine for different animal species. Know the limitations of some drugs depending on the species or even the breed, as well as the specific contraindications.

17. Realise complete basic examinations in different clinical specialities (dermatology, neurology, ophthalmology, traumatology and orthopaedics...).
18. Recognise personal limitations and know when to ask for professional advice and help.
19. Recognise the adverse effects that different medications can cause and observe established pharmacovigilance legislation
20. Recognise the disorders that require urgent assistance and know how to prioritise them by severity.
21. Recognise the moment when a case needs to be passed to a specialist for diagnosis and/or treatment, and if required, or not, an urgent examination.
22. Seek and manage information related with professional activity
23. Show responsibility regarding the need to perform necessary complementary tests on the patient and know how to evaluate the meaning and integrate it in the evolution of hospitalised patients of different species.

## **Content**

### Schedule of the course

1. Chapter 1. Diagnostic approach to the dog with focal-multifocal alopecia. Bacterial folliculitis and other forms of superficial pyoderma Demodicosis. Dermatophytosis. Other diseases causing focal-multifocal alopecia.
2. Chapter 2. Diagnostic approach to the pruritic dog. Pathophysiology of pruritus. Anti-pruritic drugs. Differential diagnoses for the pruritic dog. *Malassezia* overgrowth dermatitis. Pyotraumatic dermatitis ("hot spots"). Sarcoptic mange (scabies). Fleas and flea allergy dermatitis. Food allergy/Intolerance. Atopic dermatitis.
3. Chapter 3. Diagnostic approach to the pruritic cat. Cats are not small dogs. Clinical presentations of the pruritic cat. Differential diagnoses for the pruritic cat. Notoedric mange. Feline demodicosis. Cheyletiellosis. Dermatophytosis. Fleas and flea allergy dermatitis. Food allergy/intolerance. Feline atopic dermatitis. Eosinophilic dermatoses. Psychogenic dermatitis.
4. Chapter 4. Diagnostic approach to the patient with erosive-ulcerative-crusting diseases affecting skin and mucocutaneous junctions. Differential diagnosis of erosive-ulcerative diseases affecting skin and mucocutaneous junctions (nasal dermatosis, oral/perioral dermatosis, footpad dermatosis). Leishmaniasis. Pathogenesis of autoimmune skin diseases. Discoid lupus erythematosus Pemphigus foliaceus. Superficial necrolytic dermatitis. Epitheliotropic T-cell lymphoma (Mycosis fungoides).
5. Chapter 5. Diagnostic approach and treatment of scaling and crusting dermatoses in dogs and cats Sebaceous adenitis Zinc-responsive dermatosis. Ichtyosis. Feline pemphigus foliaceus.
6. Chapter 6. Diagnostic approach to the dog with symmetric non-pruritic alopecia. Pathomechanisms of alopecia. Differential diagnosis of symmetric alopecia in the dog. Hypothyroidism. Cushing's disease. Sex-hormone imbalances. Alopecic breeds. Recurrent/Cyclic flank alopecia. Color dilution alopecia. Other follicular dysplasias. Canine pattern baldness. Telogen/anagen effluvium. Post-clipping alopecia. Alopecia X.
7. Chapter 7. Diagnostic approach to skin nodules and tumors. Pathogenesis of cutaneous nodular/lesions Diagnostic approach to the nodular lesions. Infectious nodules. Inflammatory, non-infectious nodules (nodular panniculitis, reactive histiocytosis). Neoplastic nodules and tumors.
8. Chapter 8. Diagnostic approach and treatment of otitis externa. Examination of the ear. Diagnostic approach to the patient with otitis externa. Primary/secondary/ perpetuating causes of otitis externa. Treatment of canine otitis externa. Otitis media.

## **Methodology**

The "Dermatology" course uses different methodologies to reach the above-mentioned objectives. Mainly:

1. Discussion of Clinical Cases selected to illustrate the most common dermatologic clinical presentations/problems in dermatology, followed by traditional lectures to provide basic information on the most common skin diseases.
2. Diagnostic Derm Quizzes to help you to recognize common skin diseases with a highly characteristic clinical presentation.

3. Reading and analysis of relevant scientific papers, to understand how new knowledge in a scientific discipline is created and how to use this information to solve clinical problems (use of clinical trials, meta-analysis, guidelines papers, reviews,..).
4. Workshops to discuss best treatment options for the most common skin diseases following the principles of EBM.
5. Each chapter includes a self-assessment questionnaire to facilitate the evaluation of the progress by the student.
6. Clinical rotations at the Dermatology Service of the Veterinary Teaching Hospital (2 days).

## Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Clinical rotation at the HCV_UAB	8	0.32	1, 2, 16, 4, 5, 6, 23, 7, 12, 13, 10, 8, 17, 21, 19, 20, 18
Lectures - Discussion of clinical cases	16	0.64	1, 3, 2, 22, 16, 4, 5, 6, 23, 7, 13, 21, 19, 20, 18, 9
Workshops	6	0.24	1, 3, 2, 22, 4, 5, 6, 23, 7, 13, 11, 21, 20, 18
Type: Autonomous			
Study	43	1.72	1, 22, 10, 19, 20, 9

## Assessment

There will be a multiple-choice final examination (worth 50% of final grade). The clinical cases will worth 40% of the final grade of the course and the active participation and the quality of the presentations at the seminars and at the clinical rotation at the HCV will be the remaining 10% of the final grade.

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Evaluation and grading of clinical cases (to be done during the lectures)	40%	0	0	3, 2, 22, 16, 5, 6, 7, 13, 21, 19
Evaluation of participation and performance at the workshops and at the clinical rotation (HCV)	10%	0	0	1, 3, 2, 22, 16, 4, 5, 6, 23, 7, 12, 13, 14, 11, 10, 8, 15, 17, 19, 20, 18
Final exam - Multiple choice questions	50%	2	0.08	1, 3, 16, 6, 7, 13, 19, 9

## Bibliography

These are the main textbooks to be used in the course:

1. Miller WH, Griffin CE, Campbell K. Müller & Kirk's Small Animal Dermatology (7th Ed.). Elsevier, 2013. Considered the classic and main reference in small animal dermatology. Contains all scientific information published on the field. Approximate price: 140 Euros.

2. Hnilica K and Patterson AP. (2017). Small Animal Dermatology. A color atlas and therapeutic guide. Elsevier-Saunders, ST Louis - Missouri. [There is also an e-book version at the library of the school]. Excellent images, well organized and very synthetic. Approximate price 120 Euros.
3. Jackson H & Marsella R (eds). BSAVA manual of canine and feline dermatology (3rd Ed). BSAVA, 2012. (3rd Ed.). First chapters are "problem oriented" and can be very useful to approach the clinical cases. Updated (2012). Approximate price 120 Euros.
4. Moriello K. Small Animal Dermatology. Clinical cases. Manson Publishing Ltd, London, 2011.
5. Moriello K & Diesel A. Small Animal Dermatology, Advanced Cases: Self-Assessment Color Review (Veterinary Self-Assessment Color Review Series). CRC Press, 2013. These two last books are, essentially, collections of clinical cases. They are very well documented and explained and in fact; they are a very useful complementary tool for this dermatology course. Recommended.

Additional learning source:

The bimonthly journal Veterinary Dermatology publishes very interesting papers on the discipline ([http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1365-3164](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-3164)).