

Domestic Animal Medicine and Surgery I

Code: 102622
ECTS Credits: 7

Degree	Type	Year	Semester
2502445 Veterinary Medicine	OB	4	1

Errata

Carmen Díaz-Bertrana is professor who lecture in this subject.

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Use of Languages

Principal working language: spanish (spa)
Some groups entirely in English: No
Some groups entirely in Catalan: No
Some groups entirely in Spanish: No

Other comments on languages

A small part of the subject (16%) will be taught in English, 59% in spanish and 25% in catalan.

Teachers

Yvonne Espada Gerlach
Josep Pastor Milán
Maria Teresa Peña Giménez
Rafael Ruíz de Gopegui Fernández
Sònia Añor Torres
Jaume Martorell Monserrat
Lluís Ferrer Caubet
Laia Maria Solano Gallego

Prerequisites

There are no official prerequisites for taking the subject. However, it is convenient for the student to have completed and passed the first three grades, especially Pathology, Exploratory methods, Animal reproduction, Pharmacology, Surgery and Anesthesiology.

Objectives and Contextualisation

Medicine and Surgery of Companion Animals I is a compulsory subject during the fourth year of veterinary degree. This subject is totally theoretical and the practices will be carried out in the subject Medicine and

Surgery of Companion Animals II that is taught in the same course. It is essential and basic for subsequent clinical studies. The most frequently diagnosed diseases in the clinic of small animals will be studied. In this subject the description of the medical-surgical anomalies of the different organs and systems is explained, including the study of the etiology, clinical signs, diagnostic methods, treatment and prognosis. The specific objectives for the student are:

- To understand and apply the principles of medicine based on evidence.
- To learn how to approach a clinical case by following the problem oriented approach (POA).
- To know the most used surgical techniques in veterinary
- To know the diseases derived from reproduction, childbirth and puerperium, as well as their treatment
- To know the bases of pharmacotherapy and its application
- This subject includes activities carried out in English, identified in this teaching guide as DA (English Teaching)

Competences

- Apply the basic cures that guarantee the correct function of the reproduction cycle and the resolution of obstetric problems.
- Demonstrate knowledge and understanding of the general bases of medical and surgical treatments.
- Demonstrate knowledge of English to communicate both orally and in writing in academic and professional contexts.
- 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.
- Recognise when euthanasia is necessary and perform it humanely by employing the appropriate method.

Learning Outcomes

1. Demonstrate knowledge of English to communicate both orally and in writing in academic and professional contexts.
2. Describe the etiology, etiopathogeny, diagnosis and treatment of the most frequent medical and surgical diseases in small, equine and livestock animals.
3. Identify and prevent problems related with handling of animals that negatively affect their health.
4. Identify and recognise the medical and surgical problems associated to the male and female reproduction apparatus in different animal species.
5. Identify congenital and acquired diseases that affect the proper absorption of foods.
6. Identify disorders of the locomotor apparatus and especially those of members and hooves.
7. Identify neurological diseases and the most relevant ones that can sporadically affect the proper systemic functions of animals.
8. Identify the most frequent metabolic disorders.
9. Identify whether the quality of life of affected animals is good enough and, if it is not, identify euthanasia as an alternative humanitarian procedure.
10. Identify, treat and prevent problems that alter lactation and the functionality of the mammary gland.
11. Identify, treat and prevent the causes of infertility in male and females.
12. Identify, treat and prevent the causes that lead to anoestrus and alter normal cyclicity.
13. Identify, treat and prevent the problems that affect neonates.
14. Interpret basic pathological X-rays and echographies.
15. Recognise pathological changes in X-rays and echographies of simple cases and interpret them properly.

16. Recognise the limitations of medicine and the general state of sick animals.

Content

The learning process of the contents of the subject takes place in an integrated way by attending the theoretical or master classes and the materials in the Virtual Campus for the development of self-learning activities.

Theoretical contents:

Block of Medicine Bases on Evidence - Analysis and discussion of clinical cases:
Medicine bases on evidence: concepts and practical application.

Critical analysis of topics (critically appraised topics - CAT). Students, grouped in 3-4 people groups, will analyse a clinical question in a critical way (CAT) and deliver the written solution before the end of the course.

Discussion and analysis of the clinical case 1.

Discussion and analysis of the clinical case 2.

Discussion and analysis of the clinical case 3.

Block IMAGE

Diagnostic imaging of cardiac pathologies

Diagnosis by image of respiratory pathologies

Diagnostic imaging of urinary and adrenal pathologies

Diagnosis by image of skull and spine pathologies

Diagnostic imaging of gastrointestinal pathology

Diagnostic imaging of pathology of liver, spleen, pancreas

Diagnostic imaging of pathologies of the reproductive system

Reproduction Block

Reproductive problems of the female

Infertility

Mammary pathology

Problems of childbirth and postpartum

Reproductive problems of the male

Block M. Internal

Oral cavity.

Esophageal diseases.

Stomach and intestine.

Acquired heart valve diseases.

Cardiopathies congenital.

Xoc.

Acid base.

Thyroid.

Diabetes.

Adrenal endocrinopathies.

Acute and chronic renal failure.

ITU and urolithiasis.

Hematological abnormalities: anemia.

Hematological abnormalities: leukocytes and leukograms.

Diseases of the upper respiratory tract.

Respiratory tract diseasesbaixes.

Cardiomyopathies.

Surgery Block

Dentistry.

Oral cavity: Lips, palate and nostrils. Congenital diseases, cleft lip, cheiloplasty. Fissure of the primary and secondary palate. Oronasal fistulas. Neoplasms of the oral cavity. Types and treatments. Mandibulectomy Maxilectomy

Ear pathology and auricular pavilion: bruises, wounds. External, average and internal otitis. Polyps. Surgical treatments: Resection of the lateral wall of the vertical duct (Zeppo). Complete ablation of the vertical conduit. Total ablation of the external auditory canal. Miringotomy, osteotomy of the tympanic bull.

upper respiratory tract I (flat nasal tumors / nostrils) Rhinitis. Sinusitis. Obstructive airway syndrome in brachycephalics.

Pathology of the larynx and trachea: laryngeal paralysis, laryngeal collapse. Collapse of trachea, tracheotomy and permanent tracheostomy. Tracheal resections

Thorax I: Costal wall. Approaches (sternotomy-thoracotomy). Drainages. Lobectomies. Pericardiectomy

Diaphragmatic hernia. chylothorax

Digestive surgery: Gastrotomy, foreign bodies. Partial gastrectomy. Delayed gastric emptying.

Pyloroplasty. Dilation / Stomach twisting. Gastropexy

Intestinal Surgery: foreign bodies. Intussusception intestinal. Volvulus Enterotomies, Enterectomy.

Female reproductive system surgery. Anatomical memory, tubal ligation, ovariohysterectomy, cesarean section, pyometra. Mastectomies Male castration.

Urinary bladder surgery. Cystotomy Urethra. Uretrostomy.

Hernias Umbilical, inguinal, scrotal hernias. Congenital and acquired.

Specialties Block

Ophthalmology:

- Ophthalmologic examination
- Diagnostics Main ocular diseases in small animals

Neurology:

- Diseases of the spinal cord Diseases
- Diseases of the brain

Dermatology: "Diagnostic approach to the dermatological patient"

Traumatology:

- Introduction to traumatology
- Internal fixation methods

Exotic:

- The first visit to mammals
- Clinical techniques in mammals

****Unless the requirements enforced by the health authorities demand a prioritization or reduction of these contents.***

Methodology

Theory classes during the 2021-22 academic year will be face to face.

Theoretical learning will be accomplished through formal lectures in the classroom.

Lectures will be taught through PPT presentations including videos and pictures so that the student can follow the explanations.

Necessary and basic bibliography will be listed so that the student completes knowledge and supplements learning with additional text consulting.

Some of the lectures will be given in english (DA)

A methodology of critical analysis of clinical questions (CAT) will be applied and the discussion of clinical cases will be done following a *problem oriented approach*.

* The proposed teaching methodology may experience some modifications depending on the restrictions to face-to-face activities enforced by health authorities."

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.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Clases	62	2.48	2, 8, 3, 4, 6, 5, 7, 13, 10, 12, 11, 15
Type: Autonomous			
Estudio	108	4.32	2, 8, 3, 4, 6, 5, 7, 9, 13, 10, 12, 11, 14, 15

Assessment

The evaluation will consist of the following activities:

- First partial exam will represent 45% of the final score. The exam will be based on multiple choice and short questions. To pass the partial, a score of at least 5 of 10 has to be obtained.
- Second partial exam that will represent 45% of the final grade. Exam will be based on multiple choice and short questions. To pass the partial, a score of at least 5 of 10 has to be obtained.
- The evaluation of both CAT and the 3 clinical cases will cover a 10% of the final score.

The written exam will allow to evaluate the integration of theoretical knowledge, the ability to relate concepts and analysis and, ultimately, show the final maturity of the student.

TO PASS THE SUBJECT, PASSING BOTH THE FIRST AND THE SECOND PARTIAL IS MANDATORY. If the student fails one or both partials, presenting again to the failed part is mandatory.

English evaluation:

English will be evaluated according to the following criteria:

- 0 points: insufficient in the group of oral and written expression, or does not participate. Student's vocabulary is poor and does not understand or understand with difficulty what he/she wants to express.
- 0.5 points: sufficient in the group of oral and written expression. The student understands what he/she wants to explain although he/she makes several important grammatical or style mistakes and his/her vocabulary is limited.
- 1 point: correct oral and written expression, although errors are identified.

The average of all the qualifications obtained in English will be made, and the bonus score will be applied in

the exam score according to the following criteria:

0-0,34 points: the student does not receive any type of bonus

0.35-0.84 points: 5% is applied to the final score of the subject

0.85- 1 point: 10% is applied on the final score of the subject

The teacher will be the one who will ultimately mark the final bonus received by the student (between the "no bonus" up to a 10% of the final score).

"*Student's assessment may experience some modifications depending on the restrictions to face-to-face activities enforced by health authorities."

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Analysis and discussion of clinical cases	10%	1	0.04	16
Examen	45%	2	0.08	1, 2, 8, 3, 4, 6, 5, 7, 9, 13, 10, 12, 11, 14, 15, 16
Examen	45%	2	0.08	1, 2, 8, 3, 4, 6, 5, 7, 9, 13, 10, 12, 11, 14, 15, 16

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Cirugía

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- BSAVA Manual of Canine and Feline Abdominal Imaging Edited by: Robert O'Brien and Frances Barr 2009
- BSAVA Manual of Canine and Feline Musculoskeletal Imaging Edited by: Frances Barr and Robert Kirberger 2006
- BSAVA Manual of Canine and Feline Thoracic Imaging Edited by: Tobias Schwarz and Victoria Johnson 2008
- BSAVA Manual of Canine and Feline Ultrasonography Edited by Frances Barr and Lorrie Gaschen 2011

Dermatologia

- 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.

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Software

Not necessary any special software.