

<b>Updated On</b>	2024/03/21																																
<b>Curricular Year / Period</b>	2023/24 / S2																																
<b>Course</b>	Veterinary Nursing																																
<b>Curricular Unit</b>	Clinical Analyses																																
<b>Language(s) of Instruction</b>	Português																																
<b>ECTS/tempo de trabalho (horas)</b>	<table border="1"> <thead> <tr> <th>ECTS</th><th>Total</th><th colspan="8">Horas de contacto semestral</th></tr> <tr> <th>6</th><th>160</th><th>T</th><th>TP</th><th>PL</th><th>S</th><th>TC</th><th>E</th><th>O</th><th>OT</th><th>EC</th></tr> </thead> <tbody> <tr> <td></td><td></td><td>32</td><td>0</td><td>32</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </tbody> </table> <p>T - Theoretical; TP - Theoretical and practical; LP - Laboratory Practice; S - Seminar; TG - Tutorial guidance; FW - Fieldwork; T - Training; ; EC - Clinical teaching; O* - Other hours typified as Clinical Training under the Directive 77/453/EEC of June 27, adapted by Directive 2005/36/EC.</p>	ECTS	Total	Horas de contacto semestral								6	160	T	TP	PL	S	TC	E	O	OT	EC			32	0	32	0	0	0	0	0	0
ECTS	Total	Horas de contacto semestral																															
6	160	T	TP	PL	S	TC	E	O	OT	EC																							
		32	0	32	0	0	0	0	0	0																							
<b>Teacher in charge (GDPR consent)</b> [complete name, email]	Luisa Dotti Silva Pereira / luisadsp@ipportalegre.pt																																
<b>Prerequisites</b> [Curricular Units that must precede and specific entry competences]																																	
<b>Learning outcomes</b> [Description of the overall and specific objectives] [Knowledge, skills and competences to be developed by students]	<p>1 Ensure that students recognise the laboratory as a workplace where safety is fundamental when handling handling and maintenance of materials, reagents and equipment.</p> <p>2 Students should acquire knowledge of how to collect, handle and store samples of biological and/or pathological fluids from different animal species, developing laboratory methodologies for assessing samples.</p> <p>3 Students should learn how to package samples from both live and dead animals and send them to the laboratory. Obtain knowledge of the handling and destruction of corpses and/or material collected from sick animals. Recognise the importance of separating hospital waste.</p>																																
<b>Sustainable Development Goals</b>	<div> <div>4 QUALITY EDUCATION </div> <div>5 GENDER EQUALITY </div> <div>15 LIFE ON LAND </div> <div>17 PARTNERSHIPS FOR THE GOALS </div> </div>																																
<b>Syllabus</b>	<p>Lectures:</p> <p>Haematology: blood constitution, haematopoiesis, collection in different species, handling and packaging of samples and cytology. Automatic and manual blood cell counting, haemogram and haematocrit. Biochemical, hormonal and coagulation profiles, ionogram and provocation tests. Clinical cases: interpreting and relating laboratory test results.</p> <p>Urine: formation and constituents of urine, collection and handling of samples. Urinalysis: macroscopic, strip, sediment and culture (TSA). Clinical cases</p> <p>Biopsy and cytology techniques.</p> <p>Collection and analysis of body cavity fluids.</p> <p>Practical classes:</p> <p>Material and equipment for the analysis laboratory. Safety rules. Preparing animals and equipment for sample collection.</p> <p>Methodologies for collecting and preserving blood in different animal species. Sending samples to the laboratory. Manual and automatic cell counting methods. Determination of biochemical parameters.</p> <p>Urine collection. Urine analysis.</p> <p>Collection of body fluids for laboratory examination.</p> <p>Biopsies and cytology.</p> <p>Separation of hospital waste and destruction of corpses</p> <p>Computerisation of data. Drawing up reports.</p>																																
<b>Teaching methodologies (including assessment)</b>	<b>1 - Teaching methodologies</b>																																

<p>[Specify the types of assessment and the weights and evaluation criteria]</p>	<p>The lectures are plenary classes which value the transmission of information, the interpretation of experimental results and a critical attitude and scientific rigour in the students. In addition to oral presentations, the aim is to monitor students' acquisition of knowledge through questioning. Practical classes, with compulsory attendance of at least 75% of classes, organised in groups, address experimental procedures, allowing students to develop skills for practical intervention in accordance with the objectives of the course. Students must actively participate in the practical classes, preparing and carrying out the work, applying the protocols and discussing the results in groups.</p> <p><b>2 - Period assessment</b></p> <p>Practical classes are compulsory, and students who do not have special status (student worker or disabled) and attend at least 75% of practical classes will not be able to take the theoretical assessments by attendance and/or exam.</p> <p>Motivation, participation, application of protocols, group discussion of results and attendance are weighted at 10 per cent of the final assessment. The oral practical assessment, using a protocol, will be carried out at the end of the semester and has a weighting of 30%. To pass the practical component, students must obtain a mark &gt;9.5. In the assessment of theoretical and practical content, students will be assessed by a written test during the semester, weighting 60% of the final assessment. All students must have at least 9.5 marks in the written assessment, otherwise they will not be able to successfully complete the course by attendance.</p> <p><b>3 - Examination assessment</b></p> <p>Practical classes are compulsory, and students who do not have special status (student worker or disabled) and attend at least 75% of the practical classes will not be able to take the written exam. Motivation, participation, application of practical protocols, group discussion of results and attendance are weighted at 10 per cent of the final assessment. The oral practical assessment, using a protocol, will be carried out at the end of the semester and has a weighting of 30%. To pass the practical component, students must obtain a mark &gt;9.5.</p> <p>In the assessment of the theoretical-practical content, students will be assessed by a written test with a weighting of 60% of the final assessment. All students must have at least 9.5 marks in the written assessment, otherwise they will not be able to successfully complete the course.</p>
<p><b>Bibliography</b></p>	<p><b>1 - Main Bibliography</b></p> <p>Colville, Joann. Blood chemistry Laboratory procedures for veterinary technicians. ISBN 0-323-01396-1 Frandsen, Eds.R.D. (1995) Anatomia y Fisiologia de los animales domésticos. Interamericana.McGraw-Hill.</p> <p>Monteiro, M. E; Faísca, P. (2010). Atlas digital de Citologia e Histologia Veterinária I. <a href="http://medvetdownloads.wordpress.com/2010/10/03/atlas-de-citologia-e-histologia-veterinaria-i-u-lusofona/">http://medvetdownloads.wordpress.com/2010/10/03/atlas-de-citologia-e-histologia-veterinaria-i-u-lusofona/</a></p> <p>Radin, M. Judith. (2014). Clinical Chemistry, Serology, and Urinalysis. Clinical Textbook for Veterinary Technicians. - 8ª Ed.. Missouri -ISBN 978-1-4377-2680-0</p> <p>Reagan, William; Sanders, Teresa G; DeNicola, Dennis B. (1998). Veterinary hematology: Atlas of common domestic species. 1ª Ed. Iowa State Press.</p> <p>Tartaglia, Louise. (2002) Veterinary physiology and applied anatomy: a textbook for veterinary nurses and technicians. Elsevier Science Thrall , Mary Anna . (2015) Hematologia e Bioquímica: Clínica Veterinária. 2ª Ed. Editora Roca ISBN 978-85-412-0440-8</p> <p>Wellman, Maxey I. (2014). Hematology and Cytology Clinical Textbook for Veterinary Technicians.-8ª Ed.. Missouri -p. 397-422. -ISBN 978-1-4377-2680-0</p> <p>Zinkl, Joseph G. Laboratory procedures for veterinary technicians. ISBN 0-323-01396-1. Cap. 5 pp 215 -256</p> <p>Willard, M D; Tvedten, H (2012). Small animal clinical diagnosis by laboratory methods (5ª edição) Elsevier</p> <p><b>2 - Complementary Bibliography</b></p> <p>Aspinall, V. (2003). Clinical procedures in veterinary nursing. Butterworth Heinemann. Philadelphia.</p> <p>August, J. R. (2006). Consultations in Feline Internal Medicine, 5ª edição, Elsevier Saunders.</p> <p>Benjamin, M.M. (1992) Manual de patologia clínica veterinária. Editorial Limusa, Philadelphia.</p> <p>Birchard, J. J. E sherding, R. G. (2000). Saunders Manual of Small Animal Practice, 2ªedição, W.B. Saunders Company.</p>

	<p>Boothe, D.M. (2001). Small Animal Clinical Pharmacology and Therapeutics, 1ª edição, W.B. Saunders Company.</p> <p>Bradford P. Smith, (2009). Large animal Internal Medicine. Saunders Company.</p> <p>Bráz, M.B. (1992). Semiologia médica animal. Vol. I e II, 2ª Edição Fundação Calouste Gulbenkian, 1981.</p> <p>Chandler, E. A., gaskell, C. J., gaskell, R. M. (2004). Feline Medicine and Therapeutics, 3ª edição, Blackwell scientific Publications.</p> <p>Crow, S. et al. (2009). Manual of clinical procedures in dog, cats, rabbits and rodents. 3rd edition. Wiley-Blackwell.</p> <p>Ettinger S. J., feldman e. C. (2010). Textbook of Veterinary Internal Medicine. 7ª Edição. Saunders.</p> <p>Elsevier; fox, P. R.; sisson, D.; moise, N. S. (1999). Textbook of Canine and Feline Cardiology Principles and Clinical Practice, 2ª Edição, W.B. Saunders Company.</p> <p>Gough, A. (2007). Differential Diagnosis in Small Animal Medicine. Blackwell Publishing.</p> <p>Nelson, R. W. E couto, C. G. (2003). Small Animal Internal Medicine , 3ª edição, Mosby.</p> <p>Osborne, C. A. E finco, D. R. (1995). Canine and Feline Nephrology and Urology, 1ª edição, Lippincott.</p> <p>Radostitis, O. et al; (2000). Veterinary Clinical examination and diagnosis. WB Saunders. Philadelphia.</p> <p>Taylor, S. (2010). Small Animal Clinical Techniques. Saunders Elsevier.</p>
<p><b>Special Situations</b></p> <p>[Students with special status]</p>	<p><b>1 - Period assessment - Students with special status</b></p> <p>Same as students without status - assessment by attendance</p> <p><b>2 - Examination assesement - Students with special status</b></p> <p>Students with working-student status who do not take part in the practical classes must take an oral practical assessment at the end of the semester, weighting 40% of the final grade, and obtain a mark &gt; 9.5 to pass the practical component of the course.</p> <p>In the assessment of the theoretical-practical content, students will be assessed by a written test with a weighting of 60% of the final assessment. All students must obtain at least 9.5 marks in the written assessment, otherwise they will not be able to successfully complete the course.</p>