

Updated On	2024/02/12																																	
Curricular Year / Period	2023/24 / S1																																	
Course	Veterinary Nursing																																	
Curricular Unit	Nutrition and Feeding																																	
Language(s) of Instruction	Português Inglês																																	
ECTS/tempo de trabalho (horas)	<table border="1"> <thead> <tr> <th>ECTS</th><th>Total</th><th colspan="9">Horas de contacto semestral</th></tr> <tr> <th>4</th><th>107</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>0</td><td>32</td><td>16</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									4	107	T	TP	PL	S	TC	E	O	OT	EC			0	32	16	0	0	0	0	0	0
ECTS	Total	Horas de contacto semestral																																
4	107	T	TP	PL	S	TC	E	O	OT	EC																								
		0	32	16	0	0	0	0	0	0																								
Teacher in charge (GDPR consent) [complete name, email]	Nicolas Garrido De La Osa / nicolasosa@ipportalegre.pt																																	
Prerequisites [Curricular Units that must precede and specific entry competences]	N/A																																	
Learning outcomes [Description of the overall and specific objectives] [Knowledge, skills and competences to be developed by students]	The fundamentals of nutrition and animal feeding will be approached, specifically nutrient classification and their functions in the organism, feed analyzing methods, digestibility, ingestion control and feed classification. In this curricular unit it is intended that the student recognizes the difference between maintenance and production necessities, that he can consult and correctly interpret requirement tables and feed composition tables, and that he solves simple problems of ration formulation. Also, it is intended to give scientific knowledge and technical methods for the student to correctly identify the structures and anatomic-functional systems, understanding the functioning of the the gastrointestinal system and the digestion, in order to fully comprehend Animal Nutrition and Feeding. It is given importance to aspects relative to digestion regulation and absorption mechanisms are described, as well as the nutrients that harmonize the metabolic functions in the healthy organism. The student will be provided of integrated and permanent concepts, essential for the correct feeding of the animals and attending for a correct nutrient balance, as promoters of animal health and well-being, minimizing environmental impact and identifying and preventing the main alimentary diseases.																																	
Sustainable Development Goals																																		
Syllabus	<p>THEORETIC Nutrition and feeding importance in animal production (livestock species) and companion animals Concept of nutrient, groups of nutrients and main properties. Types of feed. The digestive system and digestion in different species of domestic mammals. Nutritional needs depending of the species, physiologic status and production level. Digestibility determination, energetic content and metabolizable energy Alimentary management in ruminants and monogastrics</p> <p>PRACTIC Body condition scoring in different species of domestic mammals Study visits to farms Feed analyzing and processing in laboratory Ration formulation for ruminants and horses and consultation of composition tables and nutritional needs Clinical alimentary management in dogs and cats, types of commercial feeds for companion animals. Specific alimentary management in carnivores Royal canin seminar nutrition in companion animals</p>																																	
Teaching methodologies (including assessment) [Specify the types of assessment and the weights and evaluation criteria]	<p>1 - Teaching methodologies</p> <p>THEORETIC CLASSES</p>																																	

	<p>Magistral classes with the support of the teacher's manuals. Demonstration of the relation between the nutritional metabolism and feeding. Continuous participation on the students in the clarification of conceptual scientific and technical doubts.</p> <p>PRACTIC CLASSES Demonstrative sessions where methods for body score condition, live weight estimation and ration formulation are explained by the teacher, being afterwards executed by the students independently, individually or in group, with the support of the teacher.</p> <p>2 - Period assessment Mandatory presence in at least 75% of practical classes.</p> <p>Theoretic (50% final grade) 2 midterm tests, accomplishment of a monographic work proposed by the teacher and semanal quizz. 40% 1st midterm + 40% 2nd midterm + 10% monography + 10% quizz Obs. Each midterm has a minimal grade of 9.5. Failing the first test (less than 9.5) eliminates the possibility to perform the second test. A grade of less than 9.5 in the second test implies necessarily the completion of the global exam.</p> <p>Practic (50% final grade) Final written/oral exam (80%) + 20% work presentation Minimal grade: 9.5</p> <p>3 - Examination assesement Mandatory presence in at least 75% of practical classes.</p> <p>Theoretic (50% final grade) Global exam and accomplishment of a monographic work proposed by the teacher. 80% exam + 20% monography Minimal grade: 9.5</p> <p>Practic (50% final grade) Final written/oral exam (80%) + 10% work presentation + 10% participation in class Minimal grade: 9.5</p>
Bibliography	<p>1 - Main Bibliography Apontamentos fornecidos pelo professor. Lewis, Lon D. (1995). Feeding and care of the horse. 2ª ed. Williams & Wilkins Martin-Rosset, W. (1990). L'alimentation des chevaux, éditions INRA Pibot, P. et al. (2006/2008). Encyclopedia of Feline Clinical Nutrition : Royal Canin, Diffo Print Bassett, J M.; Thomas, J A. (2014). Clinical Textbook for Veterinary Technicians. (8th edition). Elsevier Saunders. (capítulos: Small Animal Nutrition e Large Animal Nutrition) Divers T, Peek S, 2008. Diseases of Dairy Cattle. 2ª ed. Saunders. Elsevier. St. Louis: Missouri. Smith, BP, 2002. Large Animal Internal Medicine. 3ª ed. Mosby. St. Louis. Missouri. Pugh, DG, Baird, AN. 2011. Sheep and Goat Medicine, 2ª ed. Elsevier. Saunders. Maryland Heights, Missouri. Devlin, TM (2011) Textbook of Biochemistry: With Clinical Correlations. 7th edition. United States, John Wiley & Sons, Inc. Frame, J; Laidlaw, S. (2011) Improved Grassland Management. Crowood Press. Meschy, F. (2017) Nutrition Minérale des Ruminants. Collection: Savoir faire. Éditions Quae Ruckebusch, Y; Demarquilly, C; Farce, M. H.; Journet, M; Jarrige, R. (1995). Nutrition des Ruminants Doméstiques: Ingestion et digestion. Collection: Mieux comprendre. INRA Éditions Alimentation des Ruminants - Apports Nutritionnels - Besoins et Reponses des Animaux - Rationnement. (2018) Éditions Quae</p> <p>2 - Complementary Bibliography Frape, D. (1998). Equine nutrition and feeding. 2ª ed. Blackwell Science Biblioteca Online (b-On)</p>
Special Situations [Students with special status]	<p>1 - Period assessment - Students with special status Theoretic (50% final grade)</p>

2 midterm tests and accomplishment of a monographic work proposed by the teacher and semanal quizzes. 40% 1st midterm + 40% 2nd midterm + 10% monography + 10% quizzes
Obs. Each midterm has a minimal grade of 9.5. Failing the first test (less than 9.5) eliminates the possibility to perform the second test. A grade of less than 9.5 in the second test implies necessarily the completion of the global exam.

Practic (50% final grade)
Final written/oral exam (80%) + 20% work presentation
Minimal grade: 9.5

2 - Examination assesement - Students with special status

Theoretic (50% final grade)
Global exam and accomplishment of a monographic work proposed by the teacher. 80% exam + 20% monography
Minimal grade: 9.5

Practic (50% final grade)
Final written/oral exam (80%) + 20% work presentation
Minimal grade: 9.5