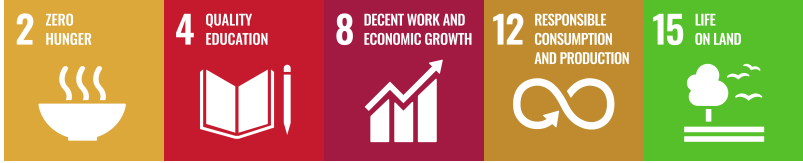


<b>Updated On</b>	2024/02/07										
<b>Curricular Year / Period</b>	2023/24 / S1										
<b>Course</b>	Agronomy										
<b>Curricular Unit</b>	Animal Biology										
<b>Language(s) of Instruction</b>	Português										
<b>ECTS/tempo de trabalho (horas)</b>	<b>ECTS</b>	<b>Total</b>	<b>Horas de contacto semestral</b>								
	5	134	<b>T</b>	<b>TP</b>	<b>PL</b>	<b>S</b>	<b>TC</b>	<b>E</b>	<b>O</b>	<b>OT</b>	<b>EC</b>
			24	24	0	0	0	0	0	0	0
<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>											
<b>Teacher in charge (GDPR consent)</b> <small>[complete name, email]</small>	Noémia Do Céu Machado Farinha / nfarinha@ippportalegre.pt										
<b>Prerequisites</b> <small>[Curricular Units that must precede and specific entry competences]</small>	Not applicable										
<b>Learning outcomes</b> <small>[Description of the overall and specific objectives] [Knowledge, skills and competences to be developed by students]</small>	<p>Know the main species and breeds exploited for Zootechnical purposes in Portugal, their skills and production cycle.</p> <ul style="list-style-type: none"> <li>- Use language and tools of common use in animal production, namely with regard to the exterior and skeleton of farm animals.</li> <li>- Identify the main aspects related to the anatomy and physiology of animal reproduction, the methods of synchronization of spines and artificial insemination.</li> <li>- Recognize the importance that nutrition plays in animal production - performances, production systems and economic results. Master the classification of food, its chemical composition and use by animals.</li> <li>- For economic and environmental reasons, knowing how to adapt food to the physiology of the animal's digestion.</li> <li>- Deepen the energy nutrition of ruminants, mastering the resolution of concrete problems for animals of dairy and meat aptitude</li> </ul>										
<b>Sustainable Development Goals</b>											
<b>Syllabus</b>	<p>1 - Domestic animals with zootechnical interest</p> <p>1.1 - Staff and consumption in Portugal and the EU</p> <p>1.2 - Classification, main races, characteristics and aptitudes. Productive cycle</p> <p>2 - Animal morphology, anatomy and physiology</p> <p>2.1 - Exterior of domestic animals</p> <p>2.2 - Skeleton and basics of osteology</p> <p>2.3 - Estimating the age of the animals</p> <p>2.4 - Zoom measurements</p> <p>2.5 - Reproduction. Cio induction and synchronization. Artificial insemination</p> <p>2.6 - Lactation. Production Contrasts</p> <p>2.7 - Digestion</p> <p>3. Animal nutrition</p> <p>3.1 - Composition and chemical analysis of food</p> <p>3.2 - Use of food</p> <p>3.3 - Food classification</p> <p>3.4 - Energy nutrition</p>										

	<p>3.5 Nitrogen nutrition 3.6. Vitamin nutrition 3.7 mineral nutrition 3.8. Water in animal feed</p>
<p><b>Teaching methodologies (including assessment)</b> [Specify the types of assessment and the weights and evaluation criteria]</p>	<p><b>1 - Teaching methodologies</b> Sessions of theoretical framework and debate. Presentation of demonstrative examples and their criticism; discussion of practical cases presented by the teacher and the students, presupposing the active participation of the students in the classes. Problem solving, in the classroom, about Nutrition matters with the greatest impact on the professional life of future graduates (chapter 3). The assessment consists of four written tests throughout the semester, where the first 3 (chapters 1, 2.1 to 2.4 and 2.5 to 2.7) have a weighting of 20% and the last one (chapter 3) of 40%</p> <p>At each evaluation time the minimum grade is 10 points. In the exam the student can be evaluated to the totality of the subject (being approved if the final classification is <math>\geq 10</math> values) or only to the components of the evaluation with classification <math>&lt;10</math> values</p> <p><b>2 - Period assessment</b> The assessment is composed of 4 written tests throughout the semester 1st frequency: chapter 1- 20% of final classification 2nd frequency: chapters 2.1 to 2.4- 20% of final classification 3rd frequency: chapters 2.5 to 2.8- 20% of final classification 4th frequency: chapter 3- 40% of the final classification</p> <p><b>3 - Examination assessment</b> In the exam the student can be evaluated to the totality of the subject (being approved if the final classification is <math>\geq 10</math> values) or only to the components of the evaluation with classification <math>&lt;10</math> values</p>
<p><b>Bibliography</b></p>	<p><b>1 - Main Bibliography</b></p> <ul style="list-style-type: none"> <li>- Afonso, F. Candeias, G., Pratas, M. 2013. Raças autoctones Portuguesas. DGAV, 335p.</li> <li>- Carbó, Carlos Buxadé (coordenador), 1995. Zootecnia. Bases de Producción Animal. Tomos I e II. Ediciones Mundi-Prensa. Madrid.</li> <li>- Colville, T.; Bassert, J. 2002. Clinical Anatomy &amp; Physiology for Veterinary Technicians. Capítulos 5 (The Skeletal System), 11 (The Digestive System) e 16 (The Reproductive System).</li> <li>- Guyomard, H., Bouamra-Mechemache, Z., Chatellier, V., Delaby, L., Détang-Dessendre, C., &amp; Peyraud, J. L. (2021). Review: Why and how to regulate animal production and consumption: The case of the European Union. <i>Animal</i> 2021; 15: 100283.</li> <li>- INE, 2019. Censos agrícolas.</li> <li>- McDonald, P.; Edwards, R.A.; Greenhalgh, J.F.D.; Morgan, C.A.; Sinclair, L.A.; Wilkinson, R.G. 2011. Animal Nutrition. Prentice Hall.</li> <li>- Mosby, USA.Frandson, R.D.; Spurgeon, T.L. 1992. Anatomía y Fisiología de los Animales Domésticos. Interamericana McGraw-Hill, Mexico.</li> <li>- INRA, 1985. Alimentación de los animales monogastricos - cerdo, conejo, aves. Ediciones Mundi-Prensa. Madrid.</li> <li>Jarrige, R. 1988. Alimentação dos bovinos, ovinos e caprinos. Coleção Euroagro - Publicações Europa-América, Mem-Martins.</li> <li>- Sá, F.V. 1990. As vacas leiteiras. Nova Coleção Técnica Agrária. Clássica Editora, Lisboa.</li> <li>- Serra, J.L. 1995. Anatomia, fisiologia e exterior dos animais domésticos. Litexa Editora, Lisboa</li> <li>- Review: Why and how to regulate animal production and consumption: The case of the European Union, 2021.</li> <li>- videos, links e bibliografia on-line atualizada</li> </ul> <p><b>2 - Complementary Bibliography</b></p>
<p><b>Special Situations</b> [Students with special status]</p>	<p><b>1 - Period assessment - Students with special status</b> Rules similar to ordinary students</p> <p><b>2 - Examination assessment - Students with special status</b> Rules similar to ordinary students</p>