

Course Unit	Agricultural Activities		Field of study	Animal and Agricultural Productions	
Bachelor in	Agronomic Engineering		School	School of Agriculture	
Academic Year	2022/2023	Year of study	2	Level	1-2
Type	Semestral	Semester	1	ECTS credits	6.0
Workload (hours)			162	Contact hours	
			T	30	TP
			PL	30	TC
			S	-	E
			OT	20	O
			Code 9086-307-2101-00-22		

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s) Arlindo Castro Ferreira Almeida, Maria Sameiro Ferreira Patrício, Sância Maria Afonso Pires

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:

1. Acquire information on the cultural and economic importance, as well as the geographical distribution of crops and major zootechnical species exploited.
2. Interpret and analyze the annual weather conditions of the national territory in order to identify the cultural periods.
3. Relate the soil characteristics to make the cultural operations with correct techniques.
4. Acquire knowledge on conventional agriculture and conservation agriculture.
5. Acquire fundamental concepts of forestry, including some forestry production techniques for sustainable forest management .
6. Acquire an integrated view of forest multifunctionality for profit increase
7. Acquire an integrated view of animal husbandry multifunctionality as a way to maximize the productivity of livestock production Know discern on the biotype zootechnique more suitable for breeding
8. Develop a cultural plan (crop + husbandry + forest) from a farm agro, zootechnique and forest.

Prerequisites

Before the course unit the learner is expected to be able to:
Knowledge about climate, soil elements and biology

Course contents

Importance of cultural and economic activities of production under agriculture, forestry and zootechnique; ecophysiological aspects of the production activities and cultural periods; Animal production. Major animal species. Breed and feed. Housing and management. Zootechnical aptitude. General concepts of Forestry. Forest species, natural forests and plantations. The forestry and agro-forestry production systems. Sustainable forest management. Afforestation: natural regeneration/ plantation. Forest management: growing, tending and harvesting.

Course contents (extended version)

1. Importance of cultural and economic agrarian activities.
 - Agriculture, environment and energy; ecophysiological aspects.
 - Technology in the production of key plant species explored.
 - Cultural operations associated with agricultural production.
2. Animal production.
 - Major animal species (ruminants, other herbivores and monogastric).
 - Breed and feed. Housing and management.
 - Zootechnical aptitude
 - Beekeeping practices and production
3. General concepts of Forestry and sustainable management of forests.
 - Multifunctional forestry, sustainable management and forest certification
 - The forestry and agro-forestry production systems
 - Forest species, natural forests and plantations.
 - Nurseries. Afforestation: soil tillage/ regeneration.
 - Stages of growth and harvesting.
 - Silvicultural treatments of forest stands: Cleaning, tending cuts and pruning

Recommended reading

1. DGF (Eds.), 2003. Boas Práticas Florestais. DGF.
2. Alves, A. M. , Pereira, J. S. , Correia, A. V. , 2012. Silvicultura: A gestão dos ecossistemas florestais. Fundação Calouste Gulbenkian.
3. Terrón, Pedro Urbano. 2008. Fitotecnica: ingeniería de la producción vegetal. Mundi-Prensa, Madrid
4. Villalobos, F. , Mateos, L. , Orgaz, F. & Ferreres, E. 2009. Fitotecnica: Bases y tecnologías de la producción agrícola. Mundi-Prensa, Madrid.
5. DGAV (Eds.), 2013. Raças Autóctones Portuguesas, 335 p.

Teaching and learning methods

Theoretical and practical classes are related to the subjects taught in the classroom and in the field, such as sowing, plant production and identification of tree species and animal management. The resources used are from the School Farms. Use of Mobile App in classroom work context for Quizes and others.

Assessment methods

1. Continuous evaluat. (50%); - (Regular, Student Worker) (Final, Supplementary, Special)
 - Practical Work - 50% (or)
 - Intermediate Written Test - 50% (Practical test)
2. Final examination - (Regular, Student Worker) (Final, Supplementary, Special)
 - Final Written Exam - 50% (Theoretical Exam (50%))
 - Final Written Exam - 50% (Practical Exam (50%))

Language of instruction

1. Portuguese, with additional English support for foreign students.
2. Spanish

Electronic validation

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21-12-2022	24-12-2022	24-12-2022	24-12-2022