

IDENTIFYING DATA				
Forest and pasture management				
Subject	Forest and pasture management			
Code	P03G370V01704			
Study programme	(*)Grao en Enxeñaría Forestal			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Optional	4th	1st
Teaching language				
Department				
Coordinator	Martínez Chamorro, Enrique José			
Lecturers	Martínez Chamorro, Enrique José			
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General description	(*)Coñecer as bases ecolóxicas que rexen o funcionamento natural dos diversos sistemas pastorais e silvopastorais. Analizar a estructura, manexo e xestión dos devanditos sistemas silvopastorais			

Competencies	
Code	
B1	CG-01: Capacidade para comprender os seguintes fundamentos necesarios para o desenvolvemento da actividade profesional: Biolóxicos.
B6	CG-06: Capacidade para identificar os diferentes elementos: elementos bióticos.
B7	CG-07: Capacidade para identificar os diferentes elementos: elementos físicos.
B8	CG-08: Capacidade para identificar os diferentes elementos: recursos naturais renovables susceptibles de protección, conservación e aproveitamento.
B14	CG-14: Capacidade para o uso das técnicas de protección do medio forestal.
B19	CG-19: Capacidade para aplicar as técnicas de xestión ambiental.
B22	CG-22: Capacidade para aplicar e desenvolver as técnicas selvícolas e de manexo de todo tipo de sistemas forestais, parques e áreas recreativas.
B23	CG-23: Capacidade para aplicar e desenvolver as técnicas de aproveitamento de produtos forestais madeirables e non madeirables.
B33	CG-33: Capacidade para caracterizar as propiedades anatómicas e tecnolóxicas das materias primas forestais non madeirables así como das tecnoloxías e industrias destas materias primas.
C8	(*)CE-08: Coñecemento das bases e fundamentos biolóxicos do ámbito vexetal na enxeñaría.
C12	(*)CE-12: Capacidade para coñecer, comprender e utilizar os principios de: ecoloxía forestal
C15	(*)CE-15: Capacidade para coñecer, comprender e utilizar os principios de: botánica forestal.
C17	(*)CE-17: Capacidade para coñecer, comprender e utilizar os principios de: silvicultura.
C27	(*)CE-27: Capacidade para coñecer, comprender e utilizar os principios de: prevención e loita contra incendios forestais.
C35	
D1	(*)CBI 1: Capacidade de análise e síntese.
D2	(*)CBI 2: Capacidade de organización e planificación.
D7	(*)CBI 7: Adquirir capacidade na toma de decisións.
D10	(*)CBP 3: Recoñecer a diversidade e a multiculturalidade.

Learning outcomes	
Expected results from this subject	Training and Learning Results

(*)-Coñocer as bases ecoloxicas das principais gramineas e leguminosas do norte peninsular - Funcionamento natural dos diversos sistemas pastorais e silvopastorais - Manexo e xestión dos devanditos sistemas silvopastorais	B1 B6 B7 B8 B14 B19 B22 B23 B33	C8 C12 C15 C17 C27 C35	D1 D2 D7 D10

New

Contents

Topic	
INTRODUCTION TO PASTORING SYSTEMS. CONDITIONING AND IMPROVEMENT OF PASTURES	SUBJECT 1: General silvipastoral concepts. Basic pastoral management. SUBJECT 2: The vegetal component of the grazing system. Pastoral classification systems SUBJECT 3: Packaging and improvement of pastures. I Rozas. The burning. Enclosures. SUBJECT 4: Packaging and improved pastures II: Limestone amendments. Fertilization. Irrigation and drainage.
PASTURE USE. PASCICOLOGICAL SPECIES	SUBJECT 5: Basic concepts: grazing. Sega. Nutritional value: Quantity. Bromatoloxico value and palatability. SUBJECT 6: Management of grazing systems and livestock. The quantification of production and storage SUBJECT 7: Control of livestock density. Grazing and control of plant fuels. Masses of trees and pastures. Ecological effects. SUBJECT 8: Classification of silvopastoral systems. SUBJECT 9: Main pasture species.
THEME OF LABORATORY PRACTICES	SUBJECT 1P: recognition of plant species of the main genera of grasses and legumes of pastoral interest. SUBJECT 2P: Description of species of pastoral interest using transparencies and slides. SUBJECT 3P: Classification of plant species with taxonomic keys.

Planning

	Class hours	Hours outside the classroom	Total hours
Classroom work	25	10	35
Outdoor study / field practices	8	8	16
Laboratory practises	21	10	31
Multiple choice tests	3	0	3
Troubleshooting and / or exercises	2	0	2
Jobs and projects	10	0	10

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies

	Description
Classroom work	1. Formulation and resolution of exercises on real situations. 2. Simulation of management over the territory. To make a herbarium with the main purpose of the herbarium is to serve to study the main grasses and legumes of our environment
Outdoor study / field practices	Collect and identify grasses and legumes.
Laboratory practises	Identify Grasses and legumes of silvopastoral interest

Personalized attention

Methodologies	Description
Laboratory practises	
Classroom work	
Outdoor study / field practices	

Tests	Description
Multiple choice tests	
Jobs and projects	

Assessment

	Description	Qualification	Training and Learning Results		
Classroom work	(*)(*) Confeción dun Herbario	10	B1 B6 B7 B8 B14 B19 B22 B23 B33	C8 C12 C15 C17 C27 C35	D1 D2 D7 D10
Outdoor study / field practices	(*)(*) Recoñocemento e identificacion en campo de especies de interese pascicola	0			
Laboratory practises	(*) (*) Recoñocemento de especies pascicolas	5			
Multiple choice tests	(*)Recoñocer os coñecementos adquiridos	60			
Jobs and projects	(*)Realizar proxectos e exercicios de xetión basados en datos reais	25			

Other comments on the Evaluation

Sources of information

Basic Bibliography

Complementary Bibliography

SAN MIGUEL, A., **Pastizales Naturales Españoles**,

RIGUEIRO,A., **Pastoreo controlado en los bosques gallegos**,

SAN MIGUEL, A, **La dehesa Española**,

ETIENNE,M., **Western European Silvopastoral Systems**,

GONZALEZ HERNANDEZ,P, **Estudio de las formaciones arboladas y arbustivas como base para su aprovechamiento cinegético**, Tesis doctoral inédita,

RIGUEIRO,A, **La utilización del ganado en el monte arbolado gallego, un paso hacia el uso integral del monte**, En:Estudios sobre prevención y efectos ecológicos de los incendios forestales,61-78,

MONTOYA, J. M., **Pastoralismo Mediterráneo**,

SILVA,F.J, **Prácticas agroforestales en pinares y eucaliptales atlánticos**,

KNOWLES,R.L. & CUTLER,T.R, **. Integration of Forestry and Pastures in New Zealand**,

Recommendations

Subjects that continue the syllabus

Biology: Plant Biology/P03G370V01201
Forestry Ecology/P03G370V01402

Subjects that are recommended to be taken simultaneously

Forestry/P03G370V01401
Forest management/P03G370V01605

Subjects that it is recommended to have taken before

Botany/P03G370V01303
Edaphology/P03G370V01302