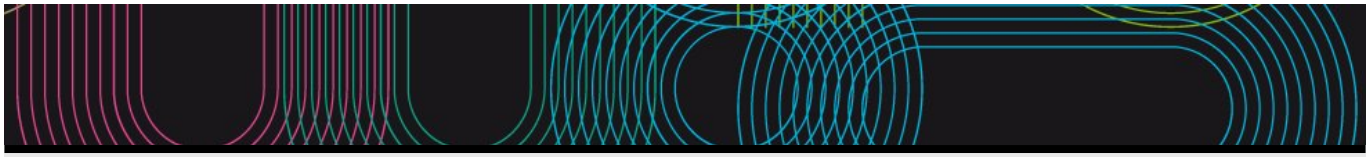
Universidade Vigo

Subject Guide 2017 / 2018



IDENTIFYING DATA				
Edaphology				
Subject	Edaphology			
Code	P03G370V01302			
Study programme	(*)Grao en Enxeñaría Forestal			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Mandatory	2nd	1st
Teaching language				
Department				
Coordinator	Marcet Miramontes, Purificación			
Lecturers	Marcet Miramontes, Purificación			
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Web				
General description				

Competencies	
Code	
B6	CG-06: Capacidade para identificar os diferentes elementos: elementos bióticos.
B7	CG-07: Capacidade para identificar os diferentes elementos: elementos físicos.
C10	(*)CE-10: Coñecementos básicos de xeoloxía e morfoloxía do terreo e a súa aplicación en problemas relacionados coa enxeñaría. Climatoloxía. Capacidade para coñecer, comprender e utilizar os principios de: ciencias do medio físico: xeoloxía, edafoloxía e climatoloxía.
D1	(*)CBI 1: Capacidade de análise e síntese.
D2	(*)CBI 2: Capacidade de organización e planificación.
D3	(*)CBI 3: Capacidade de comunicación oral e escrita tanto na lingua vernácula como en linguas estranxeiras.
D6	(*)CBI 6: Adquirir capacidade de resolución de problemas.
D7	(*)CBI 7: Adquirir capacidade na toma de decisións.
D8	(*)CBP 1: Capacidades de traballo en equipo, con carácter multidisciplinar e en contextos tanto nacionais como internacionais.
D20	(*)CBS 8: Sensibilidade cara a temas ambientais.

Learning outcomes			
Expected results from this subject	Training and Learning Results		
(*)	B6 B7	C10	D1 D2 D3 D6 D7 D8 D20
(*)Coñecer os elementos básicos da dirección de equipos de proxectos en *AAPP e Sector non Lucrativo			

Contents	
Topic	
1.Introducción The wool environmental geology	Minerales, cristales and rocks. Geodiynamic Internal. Geodynamic External. Geology of Galicia. Geologycal resources.
2. The soil: Approaches, work and study.	The soil: conceptual approaches. Edafic organizations. Edafology. The Science of the soil.

3. Ecologycal factors of training	Genesis of soils: factors and processes. Spatial variability of the soil. Horizonation. Ecological factors of training of soil.
4. Meteorization of rocks and minerales and edaphogenesis.	Weathering. Type and processes of weathering. Approach general of wool edaphogenesis. Conceptual model: basic processes in him development of the soil. Basic processes and resultant horizons. Weatherization and Deep geochemical
5 .Studio of the soils in him field. Morfology and description of the soils.	Place and pedión. Wool calicata. Morphology of the soil. Studio of wool internal organization of a soil. Interpretation of a profile of a soil. Properties and characteristics of a soil. You work of transferring. Description Of floors. Horizons of the soil: Horizons genetic and horizons of diagnosis
6. Physical properties and comportement of the soil.	The soil how system of three phases. Physical properties of the soil. Composition granulometric. Texture. Color. Structure of the soil: description of wool organization of wools individual particles. Density and porosity
7. Inorganic componencts of the soil	Origin of minerals of soil. The minerals Of wools particles of soil. Minerals Of wool fraction, sand and limo. Minerals Of wool fraction clay
8. Organic components of the soil.	Contributions Of organic subject. Organic subject of the soil and humus. You work of wool organic subject of the soil. Factors that influence in him content, class and evolution of wool organic subject of the soil. Relation C / N. Evolution of wool organic subject of the soil. Importance environmental of wool organic subject of the soil
9. Chemical properties, physical-chemical and behavior of the soil	Chemical of the soils. Forms in that find the chemical elements in the soils: bioavailability. Colloidal properties of the soil and react of surface. Capacity of exchange Cationic.Reaction of soil. Salinity, Sodicity and Alkalinity of soil. Potential of Oxidation-Reduction. Pollution of soils.
10. Ecology Of the soil and cycle of the element	Soil and biodiversity: flows of nutrient and energy. Rhizosphere. You work of the organisms in him soil. Cycles biogeochemicals.
11. Water Of soil: content, potentials and movement.	Content Of water in him soil. Measure of the content of water in him soil. Energy of water in soil: potential water and its components. Hydraulic conductivity. Infiltration. Classes of drainage
12. Introduction The wool classification of the soils.	Wool classification of soils. Soil Taxonomy. World Reference Base was Soil Resources.
13. Quality and sustainability: Forests and quality of the ecosystem	I have ecosystem forest and I soil. Management or forest management sustainable. Quality of the soil. Indicators Of quality. Evaluation of wool quality of forest soils
14. Climatology	Factors that condition wool expression of a climate. Elements of the climate. Atmospheric circulation. Analysis and prediction Of the time. Wools climatic classifications.

Planning

	Class hours	Hours outside the classroom	Total hours
Laboratory practises	16	14	30
Outdoor study / field practices	5	2	7
Presentations / exhibitions	3	20	23
Master Session	30	60	90

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

Methodologies

	Description
Laboratory practises	Activities of application of the knowledge to concrete situations and of acquisition of basic and procedural skills related to the subject matter of study. They are developed in special spaces with specialized equipment (scientific-technical laboratories, languages, etc.).
Outdoor study / field practices	Activities of application of the knowledge to concrete situations and of acquisition of basic and procedural skills related to the subject matter of study. They are developed in non-academic outer spaces. Among them we can mention field practices, visits to events, research centers, companies, institutions ... of academic-professional interest for the student
Presentations / exhibitions	Exposition by the student to the teacher and / or a group of students of a topic about contents of the subject or the results of a work, exercise, project ... It can be carried out individually or in a group.
Master Session	Teacher presentation of contents on the subject matter of study, theoretical bases and / or guidelines of a work, exercise or project to be developed by the student

Personalized attention

Methodologies	Description
Laboratory practises	
Outdoor study / field practices	
Presentations / exhibitions	

Assessment				
	Description	Qualification	Training and Learning Results	
Laboratory practises		20		D1 D2 D6 D7 D8 D20
Presentations / exhibitions		20		D2 D3 D20
Master Session		60	C10	D1 D6

Other comments on the Evaluation

Sources of information

Basic Bibliography

Complementary Bibliography

PORTA, J., LÓPEZ-ACEBEDO, M. , ROQUERO DE LABURU, C., **Edafología para la agricultura y el medio ambiente**, 2003,

PORTA, J; LÓPEZ-ACEVEDO, M , POCH, R.M., **Introducción a la Edafología: Uso y Protección del Suelo**, 2008,

PORTA, J. ,LÓPEZ-ACEVEDO M., **Agenda de campo de suelos. Información de suelos para la agricultura y el medio ambiente. del suelo.**, 2005,

BRADY, N. C., **Elements of the Nature and Properties of Soils**, 2010,

WHITE R., **Principles and practice of soil science**, 2007,

CHARMAN P., MURPHY B., **Soils . Their propierties and management**, 2007,

BLANCO H., LAL R., **Principles of soil conservation and management**, 2008,

FUENTES YAGÜE J.L., **Iniciación a la meteorología y climatología agrícola**, 2000,

Ledesma, Manuel, **, "Climatología y meteorología agrícola",**, 2000,

Elías Castillo, Francisco / Castellví Sentís, Francesc,, **"Agrometeorología",**, 2001,

Recommendations