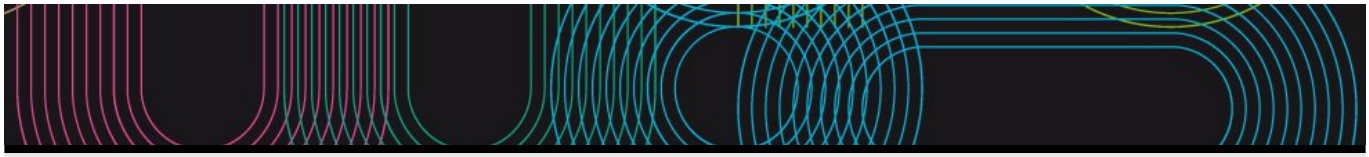
Universidade Vigo

Subject Guide 2018 / 2019



IDENTIFYING DATA				
Biology: Plant Biology				
Subject	Biology: Plant Biology			
Code	P03G370V01201			
Study programme	(*)Grao en Enxeñaría Forestal			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Basic education	1st	2nd
Teaching language				
Department	Natural Resources and Environment Engineering			
Coordinator	Souto Otero, José Carlos			
Lecturers	Souto Otero, José Carlos			
E-mail	csouto@uvigo.es			
Web	http://webs.uvigo.es/csouto/			
General description	Knowledge of the basic principles of the Vegetal Biology: anatomy, physiology and ecology of the plants.			

Competencies

Code	
B1	Ability to understand the biological, chemical, physical, mathematical and representation systems necessary for the development of professional activity, as well as to identify the different biotic and physical elements of the forest environment and renewable natural resources susceptible to protection, conservation and exploitations in the forest area.
C8	Knowledge of the bases and biological foundations of the plant field in engineering.

Learning outcomes

Expected results from this subject	Training and Learning Results	
They treat and they evaluate the distinguished competitions.	B1	C8

Contents

Topic
1.- Introduction to the vegetal Biology.
2.- General structure of the vegetal cells.
3.- The cellular division.
4.- Introduction to the vegetal anatomy.
Meristems.
5.- Parenchyma, collenchyma and sclerenchyma.
6.- Conductive fabrics. The xylem. The phloem.
7.- Epidermis. The peridermis.
8.- General structure of the vascular plants.
9.- The leaf.
10.- The flower.
11.- Alternation of generations in haplodiplontes.
12.- Fecundation.
13.- The plants and the water.
14.- Absorption of nutrients.
15.- The photosynthesis.
16.- The breath.
17.- Growth and development.
18.- Physiology of the seed.

Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	20	40	60
Case studies	2	4	6
Autonomous problem solving	1	3	4
Presentation	1	5	6
Laboratory practices	25	25	50
Studies excursion	10	14	24

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

Methodologies

	Description
Lecturing	Exhibition of the contents of the *asignatura. They treat the competitions To2, To8, To25 and To61.
Case studies	Formulation, analysis, resolution and debate of a problem or exercise related with the thematic of the *asignatura. They treat the competitions To2 and *B6.
Autonomous problem solving	Formulation, analysis, resolution and debate of a problem or exercise related with the thematic of the *asignatura, by part of the *alumnado. They treat the competitions To2 and *B6.
Presentation	Oral exhibition by part of the *alumnado of a concrete subject or of a work (previous presentation written). They treat the competitions To2, To8, To25 and To61.
Laboratory practices	Application to practical level of the theory of Vegetal Biology in the laboratory. They treat the competitions To2, To8, To25 and To61.
Studies excursion	Realisation of visits-exits to the field for the observation and study of the plants in his natural surroundings. They treat the competitions To2, To8, To25 and To61.

Personalized attention

Methodologies	Description
Presentation	

Assessment

	Description	Qualification	Training and Learning Results	
Lecturing	Examination: proof with questions of short answer and others of long answer. The students have to answer to the questions to show the knowledges purchased on the matter. They evaluate the competitions To2, To8, To25, To61 and *B6.	60	B1	C8
Presentation	It evaluates the preparation of the work and his oral exhibition. They evaluate the competitions To2, To8, To25 and To61.	20	B1	C8
Laboratory practices	Continuous evaluation of the activities realised in the practices, as well as of the memory that the students have to deliver when finalising the course. They evaluate the competitions To2, To8, To25 and To61.	20	B1	C8

Other comments on the Evaluation

The second announcement evaluates the same that the ordinary announcement.

Sources of information

Basic Bibliography

Complementary Bibliography

Raven PH, Evert RF & Eichhorn SE, **Biology of plants**, WH Freeman and CP,

Nabors M.W., **Introducción a la Botánica**, Pearson-Addison Wesley,

Azcón-Bieto J & Talón M, **Fundamentos de Fisiología Vegetal**, Mc Graw Hill,

Paniagua R, **Citología e Histología vegetal y animal**, Mc Graw Hill,

Stern KR, Bidlack JE & Jansky SH, **Introductory plant biology**, Mc Graw Hill,

Taiz L & Zeiger T, **Plant physiology**, 5ª ed.; Sunderland, MA : Sinauer Associates,

Recommendations