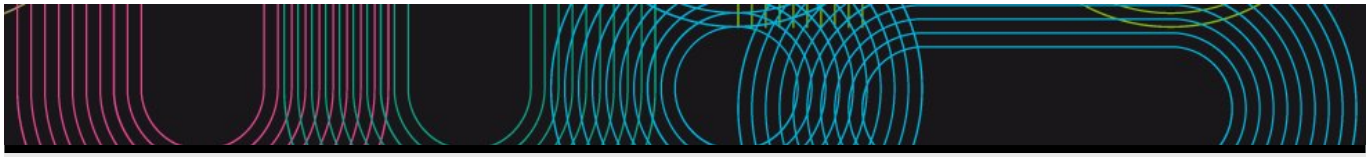

IDENTIFYING DATA				
Topography, remote sensing and geographic information systems				
Subject	Topography, remote sensing and geographic information systems			
Code	P03G370V01403			
Study programme	(*)Grao en Enxeñaría Forestal			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	9	Mandatory	2nd	2nd
Teaching language				
Department				
Coordinator	Lorenzo Cimadevila, Henrique			
Lecturers	Lorenzo Cimadevila, Henrique			
E-mail	hlorenzo@uvigo.es			
Web	http://faitic.uvigo.es/			
General description	(*)Trátase dunha materia que versa sobre os instrumentos e métodos utilizados para a realización de medición de precisión sobre o terreo e a súa representación a escala. Se abordan tamén as novas metodoloxías de adquisición e xestión de datos espaciais mediante SIX e Teledetección.			

Competencies	
Code	
B5	CG-05: Capacidade para comprender os seguintes fundamentos necesarios para o desenvolvemento da actividade profesional: Dos sistemas de representación.
B7	CG-07: Capacidade para identificar os diferentes elementos: elementos físicos.
B21	(*)CG-21: Capacidade para medir, inventariar e avaliar os recursos forestais.
B37	CG-37: Capacidade para redactar informes técnicos.
B39	CG-39: Capacidade para redactar valoracións.
B40	CG-40: Capacidade para redactar peritaxes.
B41	CG-41: Capacidade para redactar taxacións.
C16	(*)CE-16: Capacidade para coñecer, comprender e utilizar os principios de: topografía e reformulacións. Sistemas de información xeográfica e teledetección. Programas informáticos de tratamento de datos espaciais.
D2	(*)CBI 2: Capacidade de organización e planificación.
D4	(*)CBI 4: Coñecementos básicos de informática.
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.
D9	(*)CBP 2: Habilidades nas relacións interpersoais.
D13	(*)CBS 1: Aprendizaxe autónoma.
D16	(*)CBS 4: Liderado.

Learning outcomes			
Expected results from this subject	Training and Learning Results		
(*)	B5	C16	D2
	B7		D4
	B21		D6
	B37		D7
	B39		D8
	B40		D9
	B41		D13
			D16

New

Contents	
Topic	
Topography	- Introduction to Geodesy and Cartography - Instruments - Methods: radiation, itineraries, intersecting - Stake
Remote sensing	- Physical fundamentals - Sensors and Platforms - Digital image processing - Applications
Geographic information systems	- SIX concept - Models and Data Structures - Vector GIS - SIG raster - Insert digital terrain modes

Planning	Class hours	Hours outside the classroom	Total hours
Troubleshooting and / or exercises	25	50	75
Seminars	3	3	6
Master Session	1	1	2
Troubleshooting and / or exercises	3	3	6
Laboratory practises	10	20	30
Practice in computer rooms	16	32	48
Master Session	20	40	60
Short answer tests	1	0	1
Practical tests, real task execution and / or simulated.	3	0	3
Reports / memories of practice	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
Troubleshooting and / or exercises	Activity which formulated problem and / or exercises related to the course. The student should develop appropriate solutions or right through the exercise routines, application of formulas or algorithms, application processing procedures available information and interpretation of the results. It is often used to complement the lecture.
Seminars	Activities focused to work on a specific topic, allowing delve or supplement the contents of the field. They can be used to supplement the lectures.
Master Session	Presentation by the teacher of the contents on the subject under study, theoretical and / or guidelines for a job, exercise or project to be developed by the student.
Troubleshooting and / or exercises	Activity which formulated problem and / or exercises related to the course. The student should develop appropriate solutions or right through the exercise routines, application of formulas or algorithms, application processing procedures available information and interpretation of the results. It is often used to complement the lecture.
Laboratory practises	Activities application of knowledge to specific situations and basic skills acquisition and related procedural matter under study. Special spaces are developed with specialized equipment (scientific and technical laboratories, languages, etc.).
Practice in computer rooms	Activities application of knowledge to specific situations, and the acquisition of basic skills and procedural matters related to the object of study, which are held in computer rooms.
Master Session	Presentation by the teacher of the contents on the subject under study, theoretical and / or guidelines for a job, exercise or project to be developed by the student.

Personalized attention	
Methodologies	**Description**
Master Session	
Troubleshooting and / or exercises	
Seminars	
Laboratory practises	

Tests	Description
Reports / memories of practice	

Assessment					
	Description	Qualification	Training and Learning Results		
Master Session	(*)Exame teórico	20	B5 B7 B21	C16	
Troubleshooting and / or exercises	(*)Exame práctico	30	B5 B7	C16	D2 D4 D6 D13
Short answer tests	(*)Proba tipo test	10	B5 B7	C16	
Practical tests, real task execution and / or simulated.	(*)Traballo práctico	40	B5 B7 B21 B37 B39 B40 B41	C16	D2 D4 D6 D7 D8 D9 D13 D16

Other comments on the Evaluation

Sources of information

Basic Bibliography

Complementary Bibliography

Recommendations