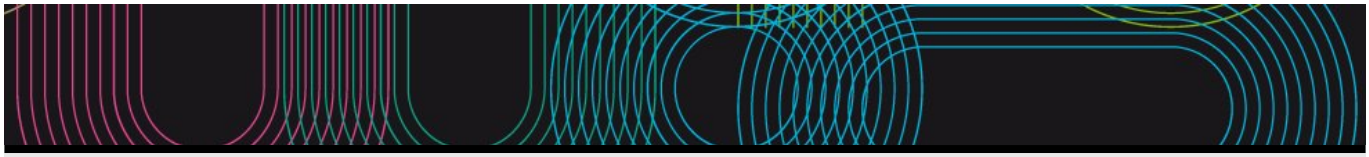

IDENTIFYING DATA				
Wood preservation and drying technology				
Subject	Wood preservation and drying technology			
Code	P03G370V01705			
Study programme	(*)Grao en Enxeñaría Forestal			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Optional	4th	1st
Teaching language	Spanish Galician			
Department				
Coordinator	González Prieto, Óscar			
Lecturers	González Prieto, Óscar			
E-mail	oscargprieto@uvigo.es			
Web	http://www.forestales.uvigo.es			
General description	(*)Asignatura que trata las dos tecnologías básicas para el uso industrial de la madera			

Competencies	
Code	
B11	Ability to characterize the anatomical and technological properties of wood and non-timber forest raw materials, as well as the technologies and industries of these raw materials.
C31	Knowledge for the calculation and design of carpentry facilities. Drying, debarking and crushing of wood.
D5	Capacity for information management, analysis and synthesis
D6	Organization and planning capacity
D8	Ability to solve problems, critical reasoning and decision making

Learning outcomes	
Expected results from this subject	Training and Learning Results

2R. 2018 Knowledge and understanding of the disciplines of engineering of the his speciality, to the necessary level to purchase the rest of the competitions of the qualifications, including notions of the last advances.	B11	C31	D5 D6 D8
4R. 2018 Capacity to #analyze products, processes and complex systems in the his field of study; choose and apply analytical methods, of calculation and experimental *relevantes of form *relevante and interpret correctly the results of these analyses.			
5R. 2018 Capacity to identify, formulate and resolve problems of engineering in the his speciality; choose and apply analytical methods, of calculation and experiments properly established; Recognize the importance of the social restrictions, of health and security, environmental, economic and industrial.			
6R. 2018 Capacity to project, design and develop complex products (pieces, component, products finished, etc.), processes and systems of the his speciality, that fulfil the requirements established, including the knowledge of the social aspects, of health and environmental security, economic and industrial; as well as select and apply methods of appropriate project.			
7R. 2018 Capacity of the project using any knowledges advanced of the his speciality in engineering.			
8R. 2018 Capacity to realize bibliographic researches, consult and use databases and other sources of information with discretion, to realize @simulación and analysis with the objective to realize investigations on technical subjects of the his speciality.			
9R. 2018 Capacity to consult and apply codes of good practices and security of the his speciality.			
10R. 2018 Capacity and capacity to project and realize experimental investigations, interpret results and obtain conclusions in the his field of study.			
11R. 2018 Understanding of the techniques and methods of analysis, project and applicable investigation and his limitations within the scope of the his speciality.			
12R. 2018 practical Competition to resolve complex problems, realize complex projects of engineering and realize specific investigations stop his speciality.			
13R. 2018 Knowledge of the application of materials, teams and tools, technological processes and of engineering and his limitations within the scope of the his speciality.			
14R. 2018 Capacity to apply norms of engineering in the his speciality.			
15R. 2018 Knowledge of the social implications, of health and security, environmental, economic and @industrial of the practice in engineering.			
16R. 2018 general Ideas on economic questions, organisational and of management (how management of projects, management of risks and change) in the industrial and entrepreneurial context.			
18R. 2018 Capacity to manage activities or technical projects or complex professionals of the his speciality, assuming the responsibility of the takes of decisions.			

Contents

Topic	
Technology of wood conservation Pathologies of wood	Natural wood durability and impregnability Types of wood use Protective products and application systems Protector application systems Treatments of wood different from the use of chemicals Wood treatment - sawmills, joinery and carpentry Technical report on pathology Constructive measures for the protection of wood Reinforcement of wooden structures
Wood drying technology	Physical principles of drying Natural drying Artificial drying Phases of artificial drying Predecaderos Drying tunnels Drying Chambers Drying of wood by special methods Defects caused by drying Programming of drying processes Design of dryers

Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	28	80	108
Problem solving	8	18	26
Studies excursion	4	6	10
Laboratory practical	2	0	2

Introductory activities	1	0	1
Problem and/or exercise solving	2	0	2
Problem and/or exercise solving	1	0	1

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

Methodologies

	Description
Lecturing	Exposition of objectives and contents and relevance of the same within the set of competences of the subject
Problem solving	Type and oral presentation problem solving seminars
Studies excursion	Explanation "in situ" of industrial processes of drying and conservation of wood
Laboratory practical	Explanation of the handling of dryers
Introductory activities	Presentation of the objectives and development of the subject

Personalized assistance

Methodologies	Description
Problem solving	
Laboratory practical	

Assessment

	Description	Qualification	Training and Learning Results
Lecturing	(*)Evaluación continua a través de la asistencia a las sesiones impartidas	10	
Problem solving	(*)Evaluación continua a través de la asistencia a las clases prácticas impartidas	10	
Studies excursion	(*)Presentación de una memoria de las visitas realizadas	5	
Problem and/or exercise solving	(*)Evaluación de la prueba de evaluación sobre los contenidos teóricos de la asignatura	55	
Problem and/or exercise solving	(*)Evaluación de las pruebas de realización de ejercicios	20	

Other comments on the Evaluation

Exam calendar:

First Call: January 24, 2020, 4:00 p.m.
Second Call: June 26, 2020, 4:00 p.m.

Publication of notes by official methods.

Sources of information

Basic Bibliography

Complementary Bibliography

Oscar González-Prieto, **Patoloxía da Madeira Estrutural**, Xunta,
F. Arriaga, **Intervención en estructuras de madera**, AITIM,
Fernando Peraza, **Protección Preventiva de la Madera**, AITIM,
J.I. Fernández-Golfín Seco, **Manual de secado de La Madera**, AITIM,
León M. Fiske, **Manual del Secado de Maderas**, Muni Prensa,

Recommendations

Subjects that continue the syllabus

Quality control and prevention of occupational hazards in the forestry industry/P03G370V01804

Subjects that are recommended to be taken simultaneously

Primary wood processing industries/P03G370V01706
Industrial organisation and processes in the wood industry/P03G370V01707

Subjects that it is recommended to have taken before

Wood technology/P03G370V01606