



## 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	<a href="http://www.forestales.uvigo.es">http://www.forestales.uvigo.es</a>			
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
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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 the conservation of the wood	Introduction: Pathologies of the wood natural Durability of the wood and *impregnabilidad Classes of use: *CU 1, *CU 2, *CU3, *CU4 and *CU5 protective Products and systems of application Wood modified: processes and products Systems of application of protective Treatments of the different wood to the employment of chemical products technical Report on pathology Measured of constructive design for the protection of the wood Reinforcements of wooden structures
Technology of the dried of the wood	Introduction: physical Principles of the dried Dried natural Dried artificial Phases of the dried artificial *Presecaderos Tunnels of dried Cameras of dried Dried of the wood by special methods Defects originated in the dried Programming and design of *secaderos

## 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	Lesson *magistral. Exhibition of aims and contents and importance of the same inside the group of competitions of the subject
Problem solving	Seminars of resolution of problems type and oral presentation
Studies excursion	Explanation "in situ" of industrial processes of dried and conservation of wood. In the case of teaching no face-to-face or *semi-face-to-face, without possibility to make exits of study, will evaluate memory of analysis of digital didactic material
Laboratory practical	Explanation of the handle of *secaderos. In the case of teaching no face-to-face or *semi-face-to-face, will make memory of audiovisual material employee.
Introductory activities	Presentation of the aims and development of the subject

Personalized assistance	
Methodologies	Description
Problem solving	The *tutorías will make preferably by telematic means (email, remotecampus, forums of doubts in *FaiTIC). For that student or student that request it will be able to make , inthe measure of the possible, *presencialmente. They will indicate to beginning of course the concrete forms ofcommunication as well as the schedules.
Laboratory practical	The *tutorías will make preferably by telematic means (email, remotecampus, forums of doubts in *FaiTIC). For that student or student that request it will be able to make , inthe measure of the possible, *presencialmente. They will indicate to beginning of course the concrete forms ofcommunication as well as the schedules.

Assessment			
	Description	Qualification	Training and Learning Results
Lecturing	Continuous evaluation through the assistance to the sessions given. Active participation in the debate that pose in the classroom/remote campus on the theoretical concepts. Also it will value the participation in the forums that enable in the platform *FaiTIC	10	
Problem solving	Continuous evaluation through the assistance to the practical classes given. Active participation in the debate that pose in the classroom/remote campus on the theoretical concepts. Also it will value the participation in the forums that enable in the platform *FaiTIC. Some proofs will be scheduled along the course and will be delivered through the platform of *Teledocencia	10	
Studies excursion	Presentation of a memory of the visits made. In the case of teaching no face-to-face or *semi-face-to-face, without possibility to make exits of study, will evaluate memory of analysis of digital didactic material	5	
Problem and/or exercise solving	Evaluation of the proof of evaluation on the theoretical contents of the subject	55	
Problem and/or exercise solving	Evaluation of the proofs of realisation of exercises	20	

**Other comments on the Evaluation**

Information detailed of examinations in to official web of the School. The here contemplated dates, can suffer modifications in the official web. It recommends check&\*nbsp;the official dates.&\*nbsp;  
&\*nbsp;General:&\*nbsp;<http://forestales.uvigo.es/gl/docencia/exames/Specific>&\*nbsp;[http://forestales.uvigo.es/images/docs/docencia/exames/exames\\_gef\\_1c\\_2020-21.pdf](http://forestales.uvigo.es/images/docs/docencia/exames/exames_gef_1c_2020-21.pdf)1º Announcement: 13/01/2021 - 16:00 \*h.&\*nbsp;2º Announcement: 30/06/2021 - 16:00 \*h.The dates of delivery of the distinct activities will be communicated with sufficient \*antelación so that the&\*nbsp;students can schedule his realisation.

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**Sources of information**

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**Basic Bibliography**

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**Complementary Bibliography**

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Oscar González-Prieto, **Patoloxía da Madeira Estrutural**, Xunta,

F. Arriaga, **Intervención en estruturas de madeira**, 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,

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**Recommendations**

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**Subjects that continue the syllabus**

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

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**Subjects that are recommended to be taken simultaneously**

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Primary wood processing industries/P03G370V01706

Industrial organisation and processes in the wood industry/P03G370V01707

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**Subjects that it is recommended to have taken before**

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Wood technology/P03G370V01606

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**Other comments**

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Eligible subject for dual training projects as established by the memory of the degree.

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**Contingency plan**

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**Description**

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=== EXCEPTIONAL MEASURES SCHEDULED ===

In front of the uncertain and unpredictable evolution of the sanitary alert caused by the \*COVID-19, the University of Vigo establishes an extraordinary planning that will activate in the moment in that the administrations and the own institution determine it attending to criteria of security, health and responsibility, and guaranteeing the teaching in a no face-to-face stage or partially face-to-face. These already scheduled measures guarantee, in the moment that was prescriptive, the development of the teaching of a more agile and effective way when being known in advance (or with a wide \*antelación) by the students and the \*profesorado through the tool normalised and institutionalised of the educational guides.

=== ADAPTATION OF THE METHODOLOGIES ===

\* educational Methodologies that keep

introductory Activities

Lesson \*magistral

Resolution of problems

\* educational Methodologies that modify

No necessary

\* Mechanism no face-to-face of attention to the students (\*tutorías)

virtual Dispatch, email and habilitation of forums in the platform \*FaiTIC

\* Modifications (if they proceed) of the contents to give

The exit of practices scheduled will not make in the case of teaching no face-to-face or in the case that it do not allow with teaching \*semi-face-to-face. \*substituirá By practical observation of audiovisual material of processes of manufacture of industries of the wood (videos and digital information)

\* additional Bibliography to facilitate the car-learning

is not necessary, since they facilitate it to him materials in the platform of \*teledocencia, many of them of own preparation by part of the professors, to be able to make a follow-up of the matter

\* Other No necessary

modifications

=== ADAPTATION OF THE EVALUATION ===

\* Test already made

keeps the weight when being adapted all the proofs to any circumstance

\* Test slopes that keep

keeps the weight when being adapted all the proofs to any circumstance

\* Test that they modify

No necessary

\* New proofs

No necessary

\* additional Information

No precise

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