



## IDENTIFYING DATA

### Wood preservation and drying technology

Subject	Wood preservation and drying technology			
Code	P03G370V01705			
Study programme	Grado en Ingeniería 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.forestaes.uvigo.es">http://www.forestaes.uvigo.es</a>			
General description	Topics in relation with wood (timber and wood derivatives) conservation and protection, as well as the industrial drying process.			

## Training and Learning Results

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

## Expected results from this subject

Expected results from this subject	Training and Learning Results
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	B11
Knowledge for the calculation and design of carpentry facilities. Drying, debarking and crushing of wood.	C31
Capacity for information management, analysis and synthesis	D5
Organization and planning capacity	D6
Ability to solve problems, critical reasoning and decision making	D8

## 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	16	69	85
Laboratory practical	8	18	26
Studies excursion	10	6	16
Problem solving	14	5	19
Introductory activities	1	0	1
Collaborative Learning	1	0	1
Objective questions exam	1	0	1
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
Laboratory practical	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
Problem solving	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
Collaborative Learning	The tutorials will be carried out both in person or by telematic means (email, remote campus, doubt forums, Moovi). For those students who request it, they can be carried out, to the extent possible, outside the indicated hours. Both the hours and the place of the tutorials will be indicated at the beginning of the course through the officially established channels.

### Personalized assistance

Methodologies	Description
Collaborative Learning	The tutoships will be carried out preferably by telematic means (email, remote campus, question forums in Moovi). For those students who request it, they may be held, as far as possible, outside the established time and place. The specific forms of communication as well as the schedules will be indicated at the beginning of the course.

### Assessment

	Description	Qualification	Training and Learning Results		
Lecturing	Continuous evaluation through the assistance to the sessions. Active participation in the debate in the classroom/remote campus on the theoretical concepts. Also it will value the participation in the forums that enable in the platform Moovi	5	B11	C31	D5 D6 D8
Laboratory practical	Continuous evaluation through the assistance to the practical classes. Active participation in the debate in the classroom/remote campus on the theoretical concepts. Also it will value the participation in the forums that enable in the platform Moovi. Some test will be scheduled along the course and will be delivered through the platform Moovi	10	B11	C31	D5 D8
Studies excursion	Presentation of a memory of the visits to the real industry.	5			D5 D6 D8

Problem solving	Memory of practical activities	10	B11	C31	D5 D6 D8
Objective questions exam	Evaluation of the proof of evaluation on the theoretical contents of the subject	40	B11	C31	D5 D6 D8
Problem and/or exercise solving	Evaluation with a practical test	30	B11	C31	D5 D6 D8

### Other comments on the Evaluation

Exam calendar: according to official information from the Forest Engineering School (check the official website for updated information)

Evaluation in continuous evaluation modality; Master class: 5%, Laboratory Practices: 10%, Theoretical and practical content exam: 40% + 30 %, Exterior visit + memory: 5%, Memory of practical activities: 10 %.

Evaluation in global evaluation modality; Theoretical content exam: 40%, Theoretical/practical content exam: 40%; Alternate memory: 20%.

### Sources of information

#### Basic Bibliography

#### Complementary Bibliography

Oscar González-Prieto, **Patoloxía da Madeira Estrutural**, 978-84-691-6284-2, Xunta, 2008

F. Arriaga, **Intervención en estructuras de madera**, 978-84-8738-12-49, AITIM, 2003

Fernando Peraza, **Protección Preventiva de la Madera**, 978-84-8738-12-25, AITIM, 2002

J.I. Fernández-Golfín Seco, **Manual de secado de La Madera**, 978-84-8738-13-79, AITIM, 2007

León M. Fiske, **Manual del Secado de Maderas**, Muni Prensa, 1967

### 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

### Other comments

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