### **LESSON DESCRIPTION**

#### 1. FENIKA

1. ILIVINA					
Found.	Univ. of Thessaly				
FACULTY	TECHNOLOGY				
DEPT.	FORESTRY, WOOD SCIENCE AND DESIGN				
STUDY LEVEL	Undergraduate				
Lesson Code	EΣΥ 761 Semester 7th				
LESSON TITLE	Timber Structures – Protection & Conservation				
ACTIVITIES			WEEKLY HRS		ECTS
Theoretical			2		
Laboratory			1		
Total			3		6
TYPE OF COURSE	Scientific are	ea			
PREREQUISITES:	None				
LANGUAGE TEACHING AND	Greek				
EXAMINATION:					
THE COURSE IS OFFERED TO	No				
ERASMUS STUDENTS					
WEBPAGES COURSE (URL)	https://eclass.uth.gr/courses				

#### 2. LEARNING OUTCOMES

## **Learning Outcomes**

Upon successful completion of the course, the student will be able :

- To recognize all wood deterioration and damage factors
- To know the techniques for diagnosing the condition of wood in constructions and in cases of works of art and cultural heritage
- To know the materials and techniques for restoring wood damage/alterations

### **General Skills**

- Search, analysis and synthesis of data and information, also using appropriate technologies
- Respect for the cultural heritage
- Decision making
- Autonomous work
- Teamwork, coordination of actions
- Critical perception, flexibility of actions

# 3. COURSE CONTENT

• In theoretical part of the course, the student is taught and learns about the factors of deterioration/damage of wood, the techniques for diagnosing the condition of wood in constructions (with an emphasis on the non-destructive/minimally intrusive ones), the materials and the restoration techniques of alterations/damages.

The laboratory part of the course takes place one (1) hour per week. Its attendance by students is mandatory and is considered successful when the student has attended at least 70% of the courses. The content of the laboratory part includes demonstration of equipment and methods described in

the theoretical part. The laboratory part includes written exams at the end of the semester and the score obtained is counted together with the score of the theory exam in the final grade of the course.

#### 4. TEACHING AND LEARNING METHODS-EVALUATION

4. TEACHING AND LEARNING METH				
DELIVERY METHOD	Combined application of educational methods and			
	techniques in classroom and in	laboratory and attain the		
	greatest possible effectiveness in "face to face" teaching:			
USE OF INFORMATION AND	Use of a course website on the e-class platform for			
COMMUNICATION TECHNOLOGIES	posting (a) lecture material, (b) notes and internet links,			
	(c) announcements and search tools.			
MANAGEMENT OF TEACHING	Δραστηριότητα	Φόρτος Εργασίας Εξαμήνου		
	Lectures	22		
	Assignment presentation,	4		
	answering questions			
	Laboratory exercises	13		
	Examining case studies of	41		
	repair and conservation			
	Individual and work study	70		
	,	-		
	Course Total	150		
STUDENT EVALUATION	The evaluation of the theoretical part of the course takes place at the end of the semester with written exams. The final exam procedure is the standard one followed in all the Department's courses.			
	In consultation with the students who wish, the evaluation of the theoretical course can also be done with progress exams that will be held on an agreed date during the semester, according to the Department's program. The final exam includes questions from all the material in the book and the result of the evaluation participates in 70% of the final grade.			
	The evaluation of the laboratory part of the course is done with a written final exam that includes questions from the laboratory courses and the result of the evaluation participates in 30% of the final grade			

# 5. RECOMMENDED BIBLIOGRAPHY

- Bucur, V. (2003). Nondestructive Characterization and Imaging of Wood. Springer Series in Wood Science. Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-662-08986-6
- Unger, A., Schniewind, A. P., & Unger, W. (2001). Conservation of Wood Artifacts. Natural Science in Archaeology. Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-662-06398-9
- Hill, C. (2006). Wood modification. Wiley.
- L. Uzielli, Wood Science for Conservation of Cultural Heritage, ISBN 978-88-8453-996-8 (online)
- ISBN 978-88-8453-382-1 (print), ©2009 Firenze University Press
- Forest Products Laboratory. 2010. Wood handbook—Wood as an engineering material. General Technical Report FPL-GTR-190. Madison, WI: U.S. Department of Agriculture, Forest Service, Forest Products Laboratory.

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