COURSE OUTLINE

1. GENERAL

INSTITUTION	University of Thessaly		
SCHOOL	School of Technology		
DEPARTMENT	Dept. of Forestry, Wood Sciences and Design		
LEVEL	*Undergraduate*		
CODE	ΞΣΕ891	**STUDENT SEMESTER**	8th
COURSE TITLE	**Wood Identification**		

ACTIVITIES	**WEEKLY HRS**	**ECTS**
Lectures and Workshops	2 + 1	5

TYPE OF COURSE	Elective course (direction: *Wood sciences & design*)
PREREQUISITES:	None
LANGUAGE TEACHING AND EXAMINATION:	Greek
THE COURSE OFFERED TO STUDENTS ERASMUS	Yes
WEBPAGES COURSE (URL)	http://mantanis.users.uth.gr/Identification-of-wood.pdf

2. LEARNING OUTCOMES

Learning Outcomes

The aim of this elective course is the students to receive specialized knowledge relating to the identification of wood. Special emphasis is given to the microscopic features of the basic commercial species of wood, and the overall scope is the recognition of the 50-60 mostly common wood species, coming from the North hemisphere and the Tropics.

Important scope of the course is the optimum use of the special software, typically used for wood identification, namely, *Inside Wood* and *macroHOLZdata*. The students in the laboratory are also trained under both the microscope and stereoscope, exercising a variety of quizzes and pragmatic tests, some of which are originating from real case studies or technical expertises.

General Skills

Upon successful completion of this course, the students will be able to develop and cultivate basic professional skills:

- Search new data
- Analysis and synthesis of new specialized information
- Adaptation to new situations
- Decision making
- Autonomous work
- Exercise teamwork
- Exercise criticism and self-criticism
- Promoting free and creative thinking
- Understanding technological developments and their implications
- Development of professional responsibility

3. COURSE CONTENT

The course focuses on issues related to:

- Scientific, common and commercial nomenclature of wood species (in Greece)
- Introduction to nomenclature respecting wood anatomy
- Overview of the origin of the wood species throughout the globe
- Basic important features (macroscopic, physical) used in the identification
- Microscopic features of fundamental importance (softwoods, hardwoods)
- Basic identification criteria used (according to the official IAWA criteria)
- Software *''Inside Wood''* (basics, exercises)
- Software '' *macroHOLZdata*'' (basics, exercises)
- Specialised case studies in wood identification (e.g. pines; red vs. white oak; false mahoganies; genuine mahoganies; true and false walnuts; ebony and rosewoods, meranti species, iroko and iroko-like wood species, etc.)
- Technical expertises

During the course, in addition to the lectures:

- Exercise and work on the fundamentals used in wood identification (at first stage: macroscopic and physical features)
- Case studies used which are the subject of discussion during the lectures, especially with tropical species, namely: iroko, teak, niangon, african mahogany, bubinga, aniegre, wenge, abura, sipo, sapele, merbau, bangkirai, meranti, azobé, movingui, rubberwood, padauk, ayous, limba
- Several laboratory exercises are carried out for self-criticism
- Homework is assigned every single week (e.g. online wood-ID tests to work at home)
- Work and get familiar with the *software* used – online laboratory quizzes

Course lectures are supported by workshops (e.g. laboratory work), where each lab student-team (typically 8-10 students) is discussing their work and learning new microscopic and macroscopic features with laboratory exercises and also work & learn under the microscope.

4. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY METHOD	Face to face The course is organized in two parallel streams: 1. Lectures, which analyze the concepts and methodologies that form the core of the course material 2. Workshops (laboratory), where students get acquainted with the methods and tools of wood anatomy in general
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of course websites both on UTH and also on the **e-Class platform** for posting (a) notes, (b) internet links, (c) announcements, search tools and other materials.
MANAGEMENT OF TEACHING	

Activity	***Semester Workload***
Lectures	30
Individual work	15
Laboratory workshops	15
Individual and work study for term assignment	65
Term assignment presentation	--
Course Total	***125***

STUDENT EVALUATION	Student assessment is largely based on the individual work done by each student, while the final grade takes into account: • the written final examination • the outcomes of each assigned homework • participation & outcome in laboratory exercises • participation in course activities (lectures etc.)

5. RECOMMENDED BIBLIOGRAPHY

- Website: http://mantanis.users.uth.gr/Identification-of-wood.pdf
- Main book: http://mantanis.users.uth.gr/Anagnwrisi-Xylou.pdf (by G. Mantanis)
- Wiedenhoeft, A. (2005). Structure and Function of Wood. http://www.fpl.fs.fed.us/documnts/pdf2005/fpl_2005_wiedenhoeft001.pdf
- H. G. Richter and M. J. Dallwitz (2009). Commercial timbers: descriptions, illustrations, identification, and information retrieval http://www.biologie.uni-hamburg.de/b-online/wood/english/index.htm
- Basic software: *InsideWood* (http://insidewood.lib.ncsu.edu/search?1)
- The Wood Database: https://www.wood-database.com/
- Basic software: *Delta-Intkey*: https://www.delta-intkey.com/wood/en/index.htm
- Swiss website, *Wood Anatomy*: http://www.woodanatomy.ch/
- Hoadley, B. (1990). Identifying Wood: Accurate Results With Simple Tools. https://books.google.gr/books/about/Identifying_Wood.html?id=kIGxQwAACAAJ&redir_esc=y
- Wood Anatomy (Nomenclature by International Association of Wood Anatomists, IAWA); https://www.iawa-website.org/uploads/soft/Abstracts/IAWA_glossary.pdf
- IAWA website, IAWA Publications respecting the wood identification; https://www.iawa-website.org/en/Downloads/Publications/index.shtml