

COURSE OUTLINE

1. GENERAL

SCHOOL	School of Technology		
DEPARTMENT	Department of Forestry, Wood Sciences and Design (Karditsa)		
LEVEL	<i>Undergraduate</i>		
CODE	KM211	STUDENT SEMESTER	2nd
COURSE TITLE	Forest Botany		
ACTIVITIES		WEEKLY HRS	ECTS
	Lectures	2	5
		1	
			5
TYPE OF COURSE	Generic knowledge and Skills Development		
PREREQUISITES:	none		
LANGUAGE TEACHING AND EXAMINATION:	Greek or English		
THE COURSE OFFERED TO STUDENTS ERASMUS	Yes		
WEBPAGES COURSE (URL)	https://eclass.uth.gr/courses/FWSD_U_107/		

2. LEARNING OUTCOMES

Learning Outcomes	
<p>The aim of the course is to provide the student with the necessary knowledge related to the subject of Forest Botany so that he/she can use them successfully in a number of forest applications in the field. Specific objectives of the course are to teach the nomenclature, the morphological characteristics, the biological requirements and the geographic distribution of forest trees and shrubs of the Greek flora and some, important from a forestry point of view, foreign forest trees. Upon successful completion of the course the student will be able to:</p> <ul style="list-style-type: none"> • recognize a significant number of forest tree species of the Greek flora, based on their morphological characteristics (leaves, flowers, fruits, etc.) • easily classify forest trees and shrubs from a systematic point of view. • know the biological requirements and growth factors of plants. • study the possibilities of coexistence of forest tree species, depending on their distribution zone and their particular morphological and biological characteristics. • clearly understand key issues related to the growth and development of forest tree species, so that he/she can use them in forest management plans, as well as studies for urban/suburban green spaces. • utilize the knowledge acquired in the specific subject and in subsequent courses that will be developed in the curriculum of the Department, such Forest Ecosystem Management, Applied Silviculture, Forest Phytosociology, Urban and Suburban Green, Reforestation, etc. 	
General Skills	
<p>Upon successful completion of the course, the students will be able to develop and cultivate basic professional skills:</p> <ul style="list-style-type: none"> • Adaptation to new situations • Production of new ideas • Autonomous work • Exercise criticism and self-criticism 	

- Respect for the natural environment
- Promoting free, creative and inductive thinking

3. COURSE CONTENT

Lectures (2 hours / week)

- **Introduction to plant systematics:** Plants and the evolution of life, terrestrial plants, higher plants, basic concepts and principles of plant taxonomy (description, identification and nomenclature of plants, taxa, taxonomic systems).
- **Evolution and diversity of seed and woody plants:** Morphology, reproduction, taxonomic features, systematic, phylogeny and ecology of the higher taxa.
- **Flora and vegetation of Greek forests:** The Greek flora, the floristic composition of forests in Greece, classification of forest vegetation (vegetation zones), endemism and conservation status of endangered plants, important forest species.
- **Forest trees and shrubs in Greece:** Morphology (leaves, flower, fruit, crown, trunk, bark), geographic distribution, habitat, protection and conservation status, wood characteristics, utility

Laboratory sessions (1 hour / week)

- Macroscopic observation and study (with the help of herbarium specimens and identification keys) of the morphological features of forest trees and shrubs of the main families.
 - Special emphasis on basic families such as: *Pinaceae*, *Cupressaceae*, *Taxodiaceae*, *Taxaceae*, *Salicaceae*, *Lauraceae*, *Fagaceae*, *Betulaceae*, *Ulmaceae*, *Platanaceae*, *Rosaceae*, *Anacardiaceae*, *Myrtaceae*, *Tilliaceae*, *Aceraceae*, *Cornaceae*, *Hippocastanaceae*, *Buxaceae*, *Rhamnaceae*, *Aquifoliaceae*, *Caprifoliaceae*, *Ericaceae*, *Apocynaceae*, *Oleaceae*, *Leguminosae* and study of their morphological and functional characteristics.
 - At least 4 excursions to various forested areas in Greece for the study of Greek forest flora
- Attendance of laboratory sessions by students is mandatory, by at least 80%.

4. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY METHOD	<ul style="list-style-type: none"> • Lectures • Teamwork • Laboratory sessions • 4 excursions 														
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	<ul style="list-style-type: none"> • Use of a course website on the e-class platform for posting (a) notes, (b) internet links, (c) announcements, search tools and social networks 														
MANAGEMENT OF TEACHING	<table border="1"> <thead> <tr> <th style="background-color: #d9ead3;"><i>Activity</i></th> <th style="background-color: #d9ead3;"><i>Semester Workload</i></th> </tr> </thead> <tbody> <tr> <td>Lectures</td> <td>26</td> </tr> <tr> <td>Laboratory sessions</td> <td>13</td> </tr> <tr> <td>Field trips</td> <td>17</td> </tr> <tr> <td>Short individual works</td> <td>34</td> </tr> <tr> <td>Individual study</td> <td>35</td> </tr> <tr> <td>Course Total</td> <td>125</td> </tr> </tbody> </table>	<i>Activity</i>	<i>Semester Workload</i>	Lectures	26	Laboratory sessions	13	Field trips	17	Short individual works	34	Individual study	35	Course Total	125
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STUDENT EVALUATION	<p>I. Final written exams (70%) that include</p> <ul style="list-style-type: none"> • Multiple choice questions from all the material of the book and the presentations of the course • Questions based on the laboratory sessions <p>II. Presentation of work (30%)</p>														

5. RECOMMENDED-BIBLIOGRAPHY

- Αθανασιάδης Ν. 1986. Δασική Βοτανική. Μέρος II (Δένδρα και θάμνοι των Δασών της Ελλάδος). Εκδόσεις Γιαχούδη-Γιαπούλη, Θεσσαλονίκη. [Κωδικός Βιβλίου στον Εύδοξο: 8542]
- Κοράκης Γ. 2018. Δασική Βοτανική (Δένδρα και Θάμνοι Αυτοφυή στην Ελλάδα). Εκδόσεις Αθανασίου Αλτιντζή, Θεσσαλονίκη. [Κωδικός Βιβλίου στον Εύδοξο: 77117403]
- Κοράκης Γ. 2015. Δασική Βοτανική (Αυτοφυή δένδρα και θάμνοι της Ελλάδας). ISBN: 978-960-603-282-0. www.Kallipos.gr
- Αραμπατζής Ι. Θ. 1998, 2001. Θάμνοι και δένδρα στην Ελλάδα. Οικολογική Κίνηση Δράμας. ΤΕΙ – Καβάλας.
- Simson M.G. 2016. Συστηματική των Φυτών. ΥΤΟΡΙΑ Εκδόσεις Ε.Π.Ε., Αθήνα