

## MODULE DESCRIPTION

### General

School	Geotechnical Sciences
Department	Forest and Natural Environment Sciences

### Module Information

Title	Forest Biometrics
Course Code	D.Y.5
Level of Studies	Undergraduate
Teaching Period	Spring
Attendance Type	Compulsory
Prerequisites	Mathematics, Ecostatistics

Orientation	Weekly Hours		Year	Semester	ECTS
	Lectures	Laboratory work			
Natural Resource Management, Protection & Climate Change	3	2	2 <sup>o</sup>	4 <sup>o</sup>	5

### Faculty Instructor

Dimitrios Raptis, Assistant Professor

### Type of Module

- General Foundation
- Specific Foundation / Core
- Knowledge Deepening / Consolidation

### Mode of Delivery

- Face to face
- Distance learning

### Digital Module availability

- E-Study Guide
- Departments Website
- E-Learning

### Language

	Teaching	Examination
Greek	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
English	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

## Erasmus

- The course is offered to exchange programme students

## Learning Outcomes

Upon successful completion of the course, students will be able to assess basic dendrometric characteristics of standing and felled trees by using modern and specialized equipment. The students will also acquire the necessary knowledge and skills for establishing sampling plots in the field and carrying out measurements of dendrometric and growth stand characteristics. The course provides all the background knowledge the students require to conduct forest inventories.

## List of General Competences

- Apply knowledge in practice
- Work autonomously
- Work in teams
- Work in an international context
- Work in an interdisciplinary team
- Respect natural environment
- Advance free, creative and causative thinking

## Module Content (Syllabus)

Introduction and basic concepts (measurement, accuracy, observational error). Estimation of basic variables at tree level (diameter, height, form factor, bark thickness, crown, basal area, age, growing space). Field sampling (number, size, shape, spatial distribution). Estimation of basic variables at stand level (diameter distributions, tree density indexes, height, volume, mean age, canopy cover). Height curve. Site index curves – Dominant height. Volume tables (local – generalized). Forest growth (annual increment).

Keywords

Dendrometry, forest inventory, woody capital, annual increment, sampling plots

## Educational Material Types

- Book
- Notes
- Slide presentations
- Video lectures
- Multimedia
- Interactive exercises
- Other:

## Use of Information and Communication Technologies

- Use of ICT in Course Teaching
- Use of ICT in Laboratory Teaching
- Use of ICT in Communication with Students
- Use of ICT in Student Assessment

### Module Organization

Please fill in the workload of each course activity

Course Activity	Workload (hours)
Lectures	39
Laboratory work	26
Field Trip/Short Individual Assignments	27
Independent Study	33
<b>Total</b>	125

\* 1 ECTS unit corresponds to 25 hours of workload

### Student Assessment Methods

- Written Exam with Multiple Choice Questions
- Written Exam with Short Answer Questions
- Written Exam with Extended Answer Questions
- Written Assignment
- Report
- Oral Exams
- Laboratory Assignment

### Suggested Bibliography (Eudoxus and additional bibliography)

1. Μάτης, Κ. 2004. Δασική Βιομετρία II - Δενδρομετρία. Εκδόσεις ΠΗΓΑΣΟΣ 2000 Θεσσαλονίκη, Κωδικός Ευδόξου 22703357
2. Κιτικίδου, Κ. 2016. Δασική Βιομετρία. Ελληνικά Ακαδημαϊκά Ηλεκτρονικά Συγγράμματα και Βοηθήματα – Αποθετήριο «Κάλλιπος»
3. Avery, T.E., & Burkhardt, H.E. (2002). Forest Management. 5th Ed. McGraw-Hill Higher Education, New York, USA. p. 408.
4. Husch, B., Beers, T.W., & Kershaw, J.A. (2003). Forest Mensuration. 4th Ed. John Wiley and Sons, Inc., New York. 443 p.