

## MODULE DESCRIPTION

### General

School	Geotechnical Sciences
Department	Forest and Natural Environment Sciences

### Module Information

Title	Forest Ecology
Course Code	D.Y.1
Level of Studies	Undergraduate
Teaching Period	Spring Term
Attendance Type	Compulsory
Prerequisites	

Orientation	Weekly Hours		Year	Semester	ECTS
	Lectures	Laboratory work			
ECOLOGY AND BIODIVERSITY CONSERVATION	3	2	2	4	5

### Faculty Instructor

IOANNIS TAKOS

### 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 type="checkbox"/>	<input type="checkbox"/>

## Erasmus

- The course is offered to exchange programme students

## Learning Outcomes

Upon completion of the course students will know: the concepts of forest and forest ecosystem. The vegetation zones and the most important phytosociological formations of Greece as well as the basic characteristics of the forest ecosystems of the world. The effect of biotic and abiotic factors on the ecology of forest ecosystems. How to assess the ecological status and dynamics of forest ecosystems, to identify the causes of stressful situations due to biotic and abiotic factors. Conduct studies on the effect of factors on the ecological function of the forest. To have the cognitive and scientific background required for forest management with appropriate silvicultural practices.

## 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)

- Components and operation of the forest ecosystem.
- The forests of the earth and Greece (Vegetation zones).
- Forest autoecology (Forest and environment).
- Solar radiation and forest.
- Water and forest.
- Atmospheric air and forest.
- Interaction of climatic factors in the forest.
- Physiographic factors and forest.
- Soil and forest.
- Biotic factors and forest. Fire and forest.
- Growth Ecology (Forestry and biological properties of forest trees).
- Propagation of forest trees.

## 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	20
Independent Study	40
<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. Νταφης, Σ. (1986) Δασική Οικολογία. Εκδόσεις Γιαχούδη – Γιαπουλή
2. Barnes, B., V., Zak, D., R., Denton, S., R., Spurr, S., H. (1998). Forest Ecology, 4th edition. John Willey and Sons, Inc.
3. Kimmins, J., P. (2004). Forest Ecology, A foundation for sustainable forest management and environmental ethics in forestry. Prentice Hall.