

## MODULE DESCRIPTION

### General

School	Geotechnical Sciences
Department	Forest and Natural Environment Sciences

### Module Information

Title	Plant Morphology and Physiology
Course Code	A.Y.5
Level of Studies	Bachelor's
Teaching Period	Fall
Attendance Type	Compulsory
Prerequisites	None

Orientation	Weekly Hours		Year	Semester	ECTS
	Lectures	Laboratory work			
Management and protection of natural resources and Climate Change			1 <sup>st</sup>	1 <sup>st</sup>	6

### Faculty Instructor

Theodora Merou

### 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

The main objectives of the course are the students of the Department of Forestry and Natural Environment to acquire knowledge for:

- the plant cell biology.
- the Genetics and evolution of plant organisms
- the diversity of plant organisms
- the physiology of Spermatophytes
- the plant body of Angiosperms

## 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)

The following chapters will be analyzed in the theoretical part of the course:

Plant Cell Biology  
Molecular Composition of Plant Cells  
The Plant Cell and the Cell Cycle  
The Movement of Substances inside and outside the cells  
Plant respiration  
Photosynthesis, Light and Life  
Intrinsic Reproduction and Heredity  
The Chemistry of Heredity and Gene Expression  
The Evolution Process  
Gymnosperms  
Introduction to Angiosperms  
Evolution of Angiosperms

General knowledge of plant physiology will also be taught such as:  
Nutrition of the plant, Growth and growth. Stages of development  
Growth and growth regulators.

In the laboratory section of the course, material related to the plant body of Angiosperms will be analyzed. In particular, this knowledge concerns:

the structure, role and function of plant organs  
Cell, Tissues, Plant Organs, Root, Shoot, Leaves, Flower, Fruit, seed

## 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	70
Laboratory work	30
Field Trip/Short Individual Assignments	10
Independent Study	40
<b>Total</b>	150

\* 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. Raven, P., Ray, E.F. & Susan, E.E. (2015). Plant biology. UTOPIA Publications. (in Greek)
2. Galatis, V., Ganotakis, D., Gani-Spyropoulou, K., Karabourniotis, G., Kotzampasis, K., Konstantinidou, E.-I., Manetas, K.A. & Roubelaki-Angelaki, K.A. (2008). Plant physiology: from the molecule to the environment. Publisher: University Publications of Crete. (in Greek)
3. Galatis V., Katsaros Ch., Apostolakos P. Introduction to Botany Publications Stamoulis (in Greek)
4. Galatis B. Plant Physiology. Publisher: University Publications of Crete (in Greek)
5. Aivalakis G., George Karabourniotis, George Liakopoulos. Plant Physiology Publications Embryo (in Greek)