

MODULE DESCRIPTION

General

School	Geotechnical Sciences
Department	Forest and Natural Environment Sciences

Module Information

Title	Edaphology
Course Code	B.Y.4
Level of Studies	Bachelors
Teaching Period	2 nd Semester
Attendance Type	Core-Mandatory
Prerequisites	-

Orientation	Weekly Hours		Year	Semester	ECTS
	Lectures	Laboratory work			
Landscape architecture and restoration	3	2	1 st	2 nd	5

Faculty Instructor

George Zaimes -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

The course teaches the basic methods for the proper management of soils in Greece with emphasis on forest ecosystems. The purpose of the course is to learn the basic knowledge of soil, its genesis, its properties and its proper management.

Upon successful completion of the course the student will be able to:

- Recognize the different types of soils, their properties, etc.
- Protect the soil from various hazards (e.g. erosion, degradation)
- Increase soil productivity
- Manage the soil to increase its ecosystem services

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 course contents are: Minerals and rocks from which the soil is formed and their relationship with the forest. Formation of soils. Physical properties of soils. Chemical properties of soils. Soil organisms. Organic substance (humus). Forest floor, Forest soils and the hydrologic cycle. The consequences of some management measures and forest fires. Forest nursery lands. Classification of soils and forest sites. Nutrient recycling.

Keywords: Soil, Chemical Properties, Physical Properties, Soil Protection, Soil Management, Ecosystems

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	32
Laboratory work	20
Field Trip/Short Individual Assignments	39
Independent Study	36
Total	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. Δασική Εδαφολογία, Βύρων Τάντος, Αθανάσιος Γ. Παπαϊωάννου, Παπασωτηρίου, 2006
2. The Nature and Properties SOILS (14th Edition). Nyle C. Brady, Ray R. Weil. Pearson Education Inc. 2008.