MODULE DESCRIPTION

General

School	Geotechnical Sciences
Department	Forest and Natural Environment Sciences

Module Information

Title	Urban Ecology
Course Code	I.Y.5
Level of Studies	Undergraduate
Teaching Period	Autumn Term
Attendance Type	Compulsory
Prerequisites	

Orientation	Weekly Hours		Year	Semester	ECTS
	Lectures	Laboratory work			
LANDSCAPE ARCHITECTURE AND RESTORATION	3	1	5	9	4

Faculty Instructor

PANTELEIMON XOFIS

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	☑	☑
English	☐	☐

Erasmus

- [x] The course is offered to exchange programme students

Learning Outcomes

Ecology for centuries deals with the relationships between the living organisms and their environment, trying through the understanding of these relationships to bring and maintain the planet in a state of sustainability, and to make the environment a hospitable place for present and future generations. Ecology, despite its anthropocentric orientation, it ignored for many years the main human habitat, which is nothing more than the urban fabric. Man is becoming more and more an urban species, so understanding the relationships between living organisms, including man, with the natural and anthropogenic environment of an urban fabric is fundamental to improving his quality of life by creating an environment friendly to him. Upon completion of the course students will know: the basic concepts of urban ecology and its historical development. The spatial structure of the urban environment and its effect on the energy flow of materials and organisms. The basic ecological characteristics of the urban environment such as urban soil, urban air, urban waters and urban green. City development models, pros and cons.

List of General Competences

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

Module Content (Syllabus)

- Introduction to the science of urban ecology and its evolution
- Structure and spatial pattern of the urban environment
- Energy flow of materials and organisms in the urban environment
- Properties of urban lands
- Properties of urban air
- Urban water systems and urban water supply
- Urban green as an urban habitat
- Models for the development of residential, commercial and industrial zones.

Educational Material Types

- [ ] Book
- [x] Notes
- [x] Slide presentations

- [ ] Video lectures
- [x] Multimedia
- [x] Interactive exercises
- [ ] Other:

Use of Information and Communication Technologies

- [x] Use of ICT in Course Teaching
- [x] Use of ICT in Laboratory Teaching
- [x] Use of ICT in Communication with Students
- [x] 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	13
Field Trip/Short Individual Assignments	18
Independent Study	30
Total	100

* 1 ECTS unit corresponds to 25 hours of workload

Student Assessment Methods

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

Suggested Bibliography (Eudoxus and additional bibliography)

1. Forman, R. T. T. (2015) Urban Ecology. Cambridge University Press
2. Forman, R. T. T. (2008) Urban Regions – Ecology and planning beyond the city. Cambridge University Press.