

MODULE DESCRIPTION

General

School	Geotechnical Sciences
Department	Forest and Natural Environment Sciences

Module Information

Title	Irrigation in the Urban Environment
Course Code	Opt.22
Level of Studies	Undergraduate
Teaching Period	Autumn Term
Attendance Type	Elective Compulsory
Prerequisites	

Orientation	Weekly Hours		Year	Semester	ECTS
	Lectures	Laboratory work			
LANDSCAPE ARCHITECTURE AND RESTORATION	2	1	4	7	3

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 successful completion of the course, students will know methods of assessing irrigation needs in urban green spaces. They will know the basic methods of irrigation, their advantages and disadvantages. They will be able to design a comprehensive study for the installation of an irrigation system in urban green spaces, including the description of the required materials as well as the estimation of the installation and maintenance costs

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)

- Irrigation needs assessment.
- Irrigation networks.
- Presentation of the most widely used irrigation technologies.
- Specialization in irrigation methods / technologies related to urban green projects (with irrigation, drip, underground), their comparative evaluation (advantages - disadvantages).
- Presentation of the main elements (systems, subsystems and components) in the above systems.
- Basic process of design and dimensioning of irrigation systems for urban green projects.
- Material specifications in irrigation networks: Materials, components, sizing.
- Licensing - legal framework.
- Estimates of installation costs and operating costs, maintenance.

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	26
Laboratory work	13
Field Trip/Short Individual Assignments	15
Independent Study	21
Total	75

* 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.	Μπαμπίλης Δ. (2004) Αρδευτικά δίκτυα πρασίνου. Εκδόσεις Σταμούλη Α.Ε.
2.	Ουζούνης Δ. (2002) Συστήματα αυτόματης άρδευσης. Εκδόσεις Γαρταγάνη.