

MODULE DESCRIPTION

General

School	Geotechnical Sciences
Department	Forest and Natural Environment Sciences

Module Information

Title	ECOLOGY AND MANAGEMENT OF INVASIVE SPECIES
Course Code	OPT.33
Level of Studies	UNDERGRADUATE
Teaching Period	WINTER TERM
Attendance Type	ELECTIVE COMPULSORY
Prerequisites	Wildlife Biology, Systematic Botany, Forest Botany

Orientation	Weekly Hours		Year	Semester	ECTS
	Lectures	Laboratory work			
ECOLOGY AND BIODIVERSITY CONSERVATION	2	1	5	9	3

Faculty Instructor

LIORDOS VASILIOS, TSIFTIS SPYRIDON

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 should be able to design and apply studies and to evaluate and analyze invasive species related issues. In particular, they will have to:

- Have a general knowledge and understanding of invasive species issues in Greece.
- Know how to prepare synthetic studies that comprehensively analyze the several aspects concerning invasive species related issues, taking into account the specific local characteristics and the various environmental, ecological and anthropogenic factors possibly affecting them.
- Be capable of reviewing relevant Greek and international scientific literature, so to formulate informed views and judgements on invasive species related issues.
- Know how to communicate information, ideas, issues and answers to both expert and non-expert audience.
- Have developed the knowledge acquisition skills necessary for further studies.

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)

What is invasive species? Invasibility of alien species. What do invasive species do? Characteristics of invasive species: plants and animals. Habitat invasiveness. Pathways of unintentional import and expansion of invasive species. Invasion hazard estimation using "Harmonia+" system and classification according to EICAT (Environmental Impact Classification of Alien Taxa). Global Invasive Species Database (GISD). Invasive species forever or integrated immigrant? Economic effects of invasive species. Ecological impacts of invasive species. Impacts of invasive species on human health. Invasive species management methods: plants and animals. Invasive species management objectives. Invasive species management plan implementation. Public perceptions. Invasive species and the aesthetics of nature. DAISIE: the 100 more invasive species of Europe. Invasive species of Greece. Tree of Heaven *Ailanthus altissima*. Sweet Prickly Pear *Opuntia ficus-indica*. Black Locust *Robinia pseudoacacia*. Bermuda Buttercup *Oxalis pes-caprae*. Hottentot Fig *Carpobrotus edulis*. Red Palm Weevil *Rhynchophorus ferrugineus*. American Mink *Mustela vison*. Coypu *Myocastor coypus*. Rose-ringed Parakeet *Psittacula krameri*. Brown Rat *Rattus norvegicus*. Yellow-bellied Slider Turtle *Trachemys scripta*.

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	20
Independent Study	16
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)

- Instructor notes
- Methodology textbooks available at the department's library
- All relevant text books and journals available at the department's library and online