



COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Technology		
ACADEMIC UNIT	Department of Environmental Sciences		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	AY303	SEMESTER	3rd
COURSE TITLE	ECOLOGY		
INDEPENDENT TEACHING ACTIVITIES	WEEKLY TEACHING HOURS		CREDITS
Teaching Hours		4	4
COURSE TYPE	General background		
PREREQUISITE COURSES	None		
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/ENV_U_183		

(2) LEARNING OUTCOMES

Learning outcomes
Ecology provides students with the basic background knowledge necessary for successfully attending a series of courses in the Department of Environment Sciences. Its content aims to introduce students to basic concepts of ecology and ecosystems, the relationships and interactions of abiotic and biotic factors, the biogeochemical cycles, etc. Upon successful completion of the course, students will be able to: <ul style="list-style-type: none">• Understand the basic principles and concepts of Ecology, Populations, Biocommunities and Ecosystems.• Comprehend the evolutionary, theoretical and operational principles of Ecology.• Understand the flow of energy in ecosystems.• Understand the natural ways of recycling in nature and the ways in which man interferes and disturbs.• Evaluate contemporary issues and applications of ecology, using a critical and scientific approach.• Apply the knowledge acquired, to other courses related to ecology in the following semesters.• Apply the knowledge, they have acquired in the course, to the solution of environmental problems.
General Competences
<ul style="list-style-type: none">• Searching, analysing and synthesizing data• Decision-making• Working independently• Work in an international environment• Respect for the natural environment• Criticism and self-criticism• Production of free, creative and inductive thinking

(3) SYLLABUS

<ul style="list-style-type: none">• Introduction to the discipline of Ecology• Key ecosystems• Ecosystems and energy flow• Biogeochemical cycles - recycling of nutrients• Productivity• Ecological Succession• Environmental Factors• Environmental Factors (continuation & integration)• Ecology of Populations• Biotic interactions

- Patterns of migration and spreading of species
- Biogeography of islands
- Biodiversity

(4) TEACHING and LEARNING METHODS – EVALUATION

DELIVERY	Face-to-face	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	<ul style="list-style-type: none"> • Use of PowerPoint slides • View material in video • Communication with students via e-mail • Use of asynchronous distance learning (e-class) 	
TEACHING METHODS	Activity	Semester workload
	Lectures	52
	Practice Exercises	28
	Literature Study & Analysis	20
	Course total (25 hours workload per credit)	100
STUDENT PERFORMANCE EVALUATION	<p>Students' performance is evaluated in the Greek language. The final grade is determined by:</p> <ul style="list-style-type: none"> • A written exam (at the end of the semester) that forms 80% of the final score, and includes some of the following assessment methods: Multiple choice Test, Short-answer Questions, Problem-solving. • The elaboration of individual assignment, in the 2nd half of the semester, which constitutes 20% of the final score. The individual work may be presented by the students in class. <p>Final Grade = 80% Exam Grade + 20% Assignment Grade</p>	

(5) ATTACHED BIBLIOGRAPHY

- Nentwig, W., Bacher, S., & Brandl, R. (2011) *Basic Concepts of Ecology*. Athens: Klidarithmos Publications. (in Greek)
- Paraskevopoulos, St. (2019) *Introduction to Ecology and Environmental Sciences*. Thessaloniki: Disigma Publications. (in Greek)
- Veresoglou, D. (2010). *Ecology*. (3rd Edition) ISBN: 978-960-7013-36-1. Athens: D. Gartaganis Publications. (in Greek)
- Vokou, D. (2009) *General Ecology: An introduction*. Thessaloniki: University Studio Press. (in Greek)