

COURSE DESCRIPTION

1. GENERAL

SCHOOL	ENVIRONMENT, GEOGRAPHY AND APPLIED ECONOMICS		
DEPARTMENT	GEOGRAPHY		
LEVEL OF COURSE	Undergraduate		
COURSE CODE	FE3600	SEMESTER	5 th and 7 th
COURSE TITLE	Sustainable Management of Natural Resources		
STRUCTURE OF TEACHING ACTIVITIES		TEACHING HOURS PER WEEK	NUMBER OF CREDITS ALLOCATED (ECTS)
Lectures and seminars (critical discussions, workshops, case studies)		3	5
TYPE OF COURSE	Elective		
PREREQUISITES	-		
LANGUAGE OF INSTRUCTION	GREEK		
COURSE OFFERED TO ERASMUS STUDENTS	YES (in English if required)		
(URL)	https://geodev.hua.gr/courses/aeiforos-diacheirisi-fysikon-poron/		

2. EXPECTED LEARNING OUTCOMES

Learning outcomes
<p>The course introduces students to the study of sustainable development and the management of natural resources in the context of climate change and social inequalities. From the perspective of environmental social sciences, students become familiar with concepts such as social-ecological systems, environmental governance, and sustainability transformations, while engaging with case studies from Europe and the Global South. Upon successful completion of the course, students will be able to:</p> <ul style="list-style-type: none"> Analyze social-ecological systems related to key natural resources, identifying critical social, institutional, and ecological parameters. Recognize that environmental problems are not only technical, but inherently social, political and governance-related. Identify and assess power dynamics, inequalities, and conflicts that influence sustainability policies and governance processes. Use tools from environmental social sciences and sustainability science, fostering interdisciplinary understanding and an appreciation for transdisciplinarity. Engage in critical discussions on sustainable development and natural resource

governance in an international and comparative context.

3. COURSE CONTENTS

The course introduces core theoretical concepts of sustainable development, social-ecological systems and environmental governance, and is organized thematically around five major natural resources: water, land, forests, biodiversity, and energy. Each unit explores the resource as part of a dynamic social-ecological system, examining institutional, social and ecological parameters of its use and management.

Indicative thematic units:

- Introduction to sustainable development and social-ecological systems
- Models of environmental governance and sustainability transformations
- Water: competing uses, conflicts, and inequalities of access
- Land and agricultural landscapes: uses, policies, and social contradictions
- Forests: climate change, local communities, and markets
- Biodiversity: protected areas and wildlife
- Energy: renewable sources, social dimensions and conflicts
- Case studies from Greece, Europe and the Global South
- Contemporary challenges and future prospects in natural resource management and governance

4. TEACHING AND ASSESSMENT METHODS

TYPE OF LECTURES	Face-to-face (lectures, seminars, group discussions, and exercises)	
ICT USE	<ul style="list-style-type: none">• Use of e-class platform for materials and communication• PowerPoint presentations, videos, scientific articles• Work with online resources	
TEACHING STRUCTURE	Activity	Hours per semester
	Lectures	26
	Seminars / case studies	13
	Individual assignment (essay)	20
	Group assignment (poster)	20
	Independent study & exam preparation	48
	TOTAL	127
ASSESSMENT METHODS	Assessment Language: Greek (English upon request) Assessment Methods	

	<ul style="list-style-type: none"> • Individual assignment (essay, ~2,500 words) – 30% • Group assignment (scientific poster & presentation with management proposal) – 30% • Final written exam (short-answer questions) – 40% <p>Assignments are required in order to participate in the final exam. Detailed assessment criteria are presented at the start of the semester and uploaded on e-class.</p>
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5. RECOMMENDED READING

Core textbooks (selected chapters will be used)

Polyzos, S. (2022). Management of Natural Resources and Sustainable Development. Thessaloniki: Tziolas & Sons.

Tsiaras, S., & Tsiroukis, A. (2023). Environment and Sustainable Development. Kallipos Open Academic Editions.

Additional readings

Berkes, F., Colding, J., & Folke, C. (Eds.). (2008). Navigating Social-Ecological Systems: Building Resilience for Complexity and Change. Cambridge University Press.

Relevant journals

- Sustainability Science
- Regional Environmental Change
- Ecology and Society
- Climate and Development

Additional bibliography and resources will be provided via e-class throughout the semester.