



COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Technology		
ACADEMIC UNIT	Department of Environmental Sciences		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	AE812	SEMESTER	8th
COURSE TITLE	MANAGEMENT of AGRICULTURAL ECOSYSTEMS		
INDEPENDENT TEACHING ACTIVITIES		WEEKLY TEACHING HOURS	CREDITS
Teaching Hours		3	3
COURSE TYPE	Specialization		
PREREQUISITE COURSES	None		
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	None		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/ENV_U_169		

(2) LEARNING OUTCOMES

Learning outcomes
<p>The course aims to familiarize students with contemporary theories, principles and possibilities for sustainable management of agricultural ecosystems and sustainable rural development. Upon successful completion of the course, students will be able to:</p> <ul style="list-style-type: none">• Develop and expand the necessary knowledge and skills, which will be used as tools for understanding the complexity of contemporary and everlasting agricultural issues and their holistic approach.• Understand principles and processes of the structure and operation of the agroecosystem.• Assess threats and risks to the rural environment from natural and anthropogenic pollution effects, and rationally deal with their consequences, on the basis of the sustainable agriculture model leading to sustainability and development.• Undertake actions based on sustainable development and innovative strategic planning solutions, at the service of the sustainable management of degraded agricultural ecosystems leading to the development of environmental agriculture.• Process and evaluate the results of the management methods they will apply in every case.• Promote the experiential education of rural populations in organic farming and sustainability.
General Competences
<ul style="list-style-type: none">• Search, analyse and synthesize data and information, using and necessary technologies• Decision making• Working independently• Group work – discussion in groups• Generation of new research ideas• Project planning and management• Respect for the natural environment• Promotion of free, creative and inductive thinking

(3) SYLLABUS

<ul style="list-style-type: none">• Agroecosystems (General Concepts). Classification of agroecosystems – Ecological functions in the agroecosystem.• Differences between natural ecosystem and agroecosystem.• Agricultural technology and the human factor. Systemic approach and sustainable agriculture development.• Defining sustainable agriculture – Dimensions and objectives of sustainability – Mechanisms for sustainability. Dissemination of knowledge and information of the rural population in the context of

<p>sustainable agriculture.</p> <ul style="list-style-type: none"> • Approaches and methodologies for sustainable management and development. • Agriculture and the rural environment – Rurality and nature – Climate change. • Management of traditional agroforestry systems. Installation of modern agroforestry systems. Main tree species for modern agroforestry systems. • Governance of the rural area. Agri-environmental programmes. Agricultural production areas, as poles of alternative forms of ecotourism. • Possibilities for rural restructuring. Agri-environmental policies.

(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 • Visiting and using material from websites • Communication with students via e-mail • Use of asynchronous distance learning (e-class) 	
TEACHING METHODS	Activity	Semester workload
	Lectures	39
	Literature Study & Analysis	21
	Writing assignments	15
	Course total (25 hours workload per credit)	75
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 70% of the final score and includes some of the following assessment methods: Multiple-Choice tests, Short-answer Questions, Problem-solving. • The elaboration of an individual project, in the 2nd half of the semester, which constitutes 30% of the final score. The individual project may be presented by the students in class. <p>Final Grade = 70% Exam Grade + 30% Assignment Grade</p>	

(5) ATTACHED BIBLIOGRAPHY

<ul style="list-style-type: none"> • Kizos, T. (2018) <i>Rural Development: Concepts, Practices and Policies</i>. Thessaloniki: Tziola Publications. (in Greek) ISBN: 978-960-418-688-4. • Siardos, G. and Koutsouris, A. (2011). <i>Sustainable Agriculture & Development</i>. Thessaloniki: ZYGOS Publications. (in Greek) ISBN: 978-960-865-82-6. • Woods, Michael (2011) <i>Rural Geography, Processes, Responses and Experiences in Rural Restructuring</i>. Athens: KRITIKI Publications. (in Greek) ISBN: 978-960-218-717-3.
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