COURSE LAYOUT

1. GENERAL

SCHOOL	Applied Economics and Social Sciences		
DEPARTMENT	AGRICULTURAL ECONOMICS AND RURAL DEVELOPMENT		
STUDY LEVEL	*Undergraduate*		
COURSE CODE	**2920**	**SEMESTER**	4th
COURSE TITLE	Management and protection of Rural Environment		

INDEPENDENT TEACHING ACTIVITIES	**WEEKLY TEACHING HOURS**	**ECTS**
LECTURES and Workshops	6	5

COURSE TYPE	Scientific area
PREREQUISITES	
LANGUAGE	Greek
IS THE COURSE OFFERED forERASMUS STUDENTS?	Yes, in Greek
COURSE WEB PAGE	http://www.aoa.aua.gr/course_info.aspx?mn=mn5&courseID=103

2. LEARNING OUTCOMES

Learning Outcomes

The course is aiming at the comprehension of the mechanisms through which agricultural activities exert pressures on natural resources. A further objective is to familiarize students with the concept of agro-ecosystems as well as the identification and assessment of their multiple services (economic, social and environmental). Finally, through the analysis of organic farming, to achieve a synthetic and objective view of the relationship between agriculture and the environment, through an agro-ecological lens.

Upon successful completion of the course students should be able to:

- Acquire knowledge of and understand the relationship between farming and the environment, as far as natural resource management, biodiversity conservation and landscape protection are concerend
- Acquire knowledge on, distinguish and evaluate specific management practices and assess theirenvironmental impacts, using contemporary evaluation tools
- To be able to use the knowledge and skills acquired in order to combine and synthesize data of different origin (economic, social, environmental), drawing

conlusions and promoting synthetic interpretations of a interdisciplinary character.

- To communicate clearly the conclusions as well as the rationale behind the conclusions and interpretations both to experts and lay persons.
- Acquire the skills that would enable him/her to advance in his/her studies

General Competences

Exploration, analysis and synthesis of data and information.
Respect for the natural environment
Work in an interdisciplinary environment
Team work
Autonomous work
Project design and management
Decision making
Adaptation to novel situations

3. COURSE CONTENT

The course is articulated in three modules:

Module 1: Environmental problems created by the intensification of agricultural production processes.

Intensification of the agricultural production process consisted essentially of an increase in use of plant protection substances and fertilizers, expansion of irrigated area, as well as increased production of residues mainly from livestock . These in turn resulted in higher risks of soil and water pollution, creating thus the need to recognize their importance as well as identify means appropriate for their control.

Within this module, the consequences of pollution, its sources, the related phenomena, the responsibilities of agriculture as well as the possible solutions are going to be presented.

Module 2 : Management of the rural space

In parallel with the above mentioned intensification process, agricultural land is abandoned, agricultural areas are cultivated in a less intensive manner, creating thus the need for a sound management of marginal agricultural areas and natural assets, hence for locally adapted farming practices.

This module draws from agronomic and ecological knowledge. The functions of ecosystems (especially agroecosystems) and the importance of biodiversity are going to be analysed. In addition, the possibility of implementation of management plans and farming practices responding to specific environmental management objectives, is going to be examined.

Module 3 : Organic agriculture

Organic agriculture is rapidly developed and the number of organic farms is steadily

growing. The objective of this module is to give students the knowledge necessary to allow them analyse technical, economic and social prerequisites for adoption as well as opportunities and constraints for the development of organic farming.

4. TEACHING AND LEARNING METHODS - EVALUATION

TEACHING METHOD	Face to face lectures During the 2019-2020 spring semester distant learning was piloted.
USE OF INFORMATICS and COMMUNICATION TECHNOLOGIES	Power Point presentations . Microsoft Teams communication. Short video films presenting the linkages between faming practices and the environment, are displayed and discussed. Teaching is supported through open e-class, a University education platform.
TEACHING ORGANISATION	*Activity* / *Work Load* Lectures (direct) — 78 h Individual study — 47 h *Total contact hours and training* — ***125 h (5 ECTS)***
STUDENTS EVALUATION	In Greek. The evaluation is made through a final examination comprised of questions requiring short answers. During the 2019-2020 spring semester examinations the distant learning platform provided bu open e-class has been used. A combination of multiple choice uestions (40%) and open questions requiring short answers (60%).

5. BIBILIOGRAPHY

Agriculture et environnement : rapport á la commission des comptes et de l'économie de l'environnement / France. Ministère de l'Écologie et du Développement Durable (MEDD), Documentation française (La), 2005.

Pesticides, agriculture et environnement : réduire l'utilisation des pesticides et en limiter les impacts environnementaux/ Institut National de la Recherche Agronomique (INRA), CEMAGREF, QUAE Editions, 2007.

Altieri Miguel A., Agroecology: The Science of Sustainable Agriculture, Westview Press, 1995.

Groupe de la Bussière (coordination : Xavier Poux), Agriculture, environnement et territoires : quatre scénarios à l'horizon 2025, Documentation Française, 2006

Journals:

Ecological Indicators

Environmental Science and Policy

Journal of Environmental Management

Land

Sustainability