5614_ NATURAL RESOURCE MANAGEMENT AND SUSTAINABLE DEVELOPMENT

COURSE OUTLINE

1. GENERAL

SCHOOL	APPLIED ECONOMIC AND SOCIAL SCIENCES			
ACADEMIC UNIT	AGRIBUSINESS AND SUPPLY CHAIN MANAGEMENT			
LEVEL OF STUDIES	*Undergraduate*			
COURSE CODE	**5614**	**SEMESTER**	6st	
COURSE TITLE	NATURAL RESOURCE MANAGEMENT AND SUSTAINABLE DEVELOPMENT			
INDEPENDENT TEACHING ACTIVITIES			**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures			4	5
COURSE TYPE	General Background			
PREREQUISITECOURSES	NO			
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek			
IS THE COURSE OFFERED for ERASMUS STUDENTS?	NO			
COURSE WEBSITE (URL)	https://oeclass.aua.gr/eclass/courses/			

2. LEARNING OUTCOMES

Learning Outcomes

The aim of the course is:

- students' understanding of the terms natural resources,
- familiarity with the categories of natural resources,
- understanding of the risks that threaten natural resources and their necessity in agriculture,
- understanding of the concept and goals of Sustainable Development,
- understanding the impacts of the climate crisis on natural resources and
- especially to consolidate the importance of sustainable management of natural resources for achieving the goals of Sustainable Development.

Upon successful completion of the course, the student will be able to:

- • understand natural resources.
- • Define the concept and content of Sustainable Development
- • evaluate the contribution of Sustainable Development to the management of natural resources
- • analyze the new trends and standards that are being formed in the world and Europe regarding Sustainable Development
- • acquire knowledge about natural resource management issues.
- • Acquire critical and creative thinking in the protection and restoration of the environment

General Competences

• Decision-making,

• Individual/Independent work

• Group/Team work,

- Adapting to new situations,
- Respect for natural resources and the goals of Sustainable Development
- Planning and sustainable management of natural resources,
- Promotion of free, creative and inductive thinking.

3. SYLLABUS

Natural resources are fundamental to the economy, development and prosperity. They provide raw materials, energy, water, land, food, as well as environmental and social services. However, current patterns of natural resource use, production, consumption and waste generation are not sustainable. The earth has finite resources and their reckless and irrational management undermines the environment, water resources, soil resources, ecosystem services and biodiversity.

Introduction and interpretation of the terms Sustainable Development. The Institutional Framework (European and Greek) and the goals for Sustainable Development. International Conferences on Sustainable Development (Stockholm Conference, Brundland Report, Rio Conference, Habitat Agenda, etc.). Basic objectives and implementation of Local Agenda 21. Policies and Actions of the European Union and Greece for Sustainable Development.

The sustainable management of natural resources and the achievement of the Sustainable Development Goals (SDGs) is essential for their preservation and availability for future generations.

Thematic Units:

1. Introduction and Definitions,
2. Natural Resources (categories, basic concepts),
3. Introduction to Sustainable Development,
4. Sustainable Development Goals (SDGs),
5. Exhaustible and Renewable Natural Resources,
6. Soil as a Natural Resource
7. Water as a Natural Resource (dams, environment and development)
8. Management and optimal use of Natural Resources,
9. Natural Resources and climate crisis,
10. Circular Economy,
11. Renewable Energy Sources, Biomass, Geothermal Energy and Agriculture
12. Pollution and protection - environmental restoration
13. Management of natural resources in Greece

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	Face -to-face, Distance learning
USE OF INFORMATION and COMMUNICATIONS TECHNOLOGY	• Support of the learning process through the AUA Open eClass platform of the University (Integrated Electronic Course Management System) • Supporting lectures using presentation software ● Using audiovisual materials

	● Using web applications ● Interactive Teaching ● Writing Assignments/Projects **Communication with students**: face to face at office hours, email, eclass platform
TEACHING METHODS	

Activity	*Work Load*
Lectures (direct)	52
Writing paper/ papers	32
Independent Study	39
Advisory support	0,5
Exams	2
Course Total (Approximately 25 hours of workload per credit unit 125.5)	***125.5***

STUDENT PERFORMANCE EVALUATION

The evaluation process is in the language that the course is taught (Greek) and consists of:

i. Compulsory written final examination at the end of the semester (weighting factor **70**% at least) which may include:
   - Multiple choice questionnaires
   - Open-ended questions
   - Problem solving
   - Oral examination

   Evaluation criteria: correctness, completeness, clarity

ii. Optional written exam or essay during the semester (weighting factor 30%) which may includes:
   - Multiple choice questionnaires
   - Open-ended questions
   - Problem solving
   - Essay/report
   - Oral examination

   Evaluation criteria: correctness, completeness, clarity

Special learning difficulties:

Students with **special learning difficulties** in writing and reading (as they are certified and characterized by a competent body) are examined based on the procedure provided by the Department.

Specifically-Defined Criteria:
The evaluation criteria are made known during the first lesson and are clearly stated on the course website and the AUA Open e-class platform. The

	answers to the exam questions are posted on the AUA Open e-Class platform after the exam. The students are allowed to see their exam paper after its grading (during the announced office hours) and receive explanations about the grade they received.

5. ATTACHEDBIBLIOGRAPHY

Suggested Bibliography in Greek Language:

• *Polyzos S. (2025). Natural Resources Management and Sustainable Development. Tziola Publications, ISBN 978-960-418-740-9.*

• *Mitoula, R., Astara, O. & Kaldis, P. (2008) "Sustainable Development - Concepts, International & European Dimensions", Rosili Publications, Athens.*

• *Handbook of sustainable development/edited by Giles Atkinson, Simon Dietz, Eric Neumayer. ISBN 978 1 84376 577 6*

• *Vlachou A. (2001). Environment and Natural Resources. Economic Theory and Policy. Kritiki Publications, ISBN 9789602182390*

• *Hatzimpiros K. (2009). Green Development. Directions for Progressive Governance, D. Xenakis (ed.). Papazisis Publications, Athens.*

Mitoula, R. (2006). Sustainable Regional Development in the European Union & Reconstruction of the Greek Urban Environment, Stamoulis Publications, Athens.

Suggested bibliography in English Language:

- *Handbook of sustainable development/edited by Giles Atkinson, Simon Dietz, Eric Neumayer. ISBN 978 1 84376 577 6*
- *European Commission DG ENV, Analysis of the Key Contributions to Resource Efficiency, Final report March 2011*
- *EEA – European Environment Agency (2015). SOER 2015 — The European environment — state and outlook 2015. European Environment Agency, Copenhagen. ISBN 978-92-9213-515-7.*

Additional teaching material:

- *- Teacher's notes*