

Grasslands Management [24]

COURSE OUTLINE

(1) GENERAL

SCHOOL	ANIMAL BIOSCIENCES		
ACADEMIC UNIT	DEPARTMENT OF ANIMAL SCIENCE		
LEVEL OF STUDIES	Undergraduate [Bachelor]		
COURSE CODE	24	SEMESTER	5 th
COURSE TITLE	GRASSLANDS MANAGEMENT		
INDEPENDENT TEACHING ACTIVITIES		WEEKLY TEACHING HOURS	CREDITS
Teaching: lectures and practicals		5	5
COURSE TYPE	Scientific field		
PREREQUISITE COURSES:	-		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS:	YES		
COURSE WEBSITE (URL):	https://mediasrv.aua.gr/eclass/courses/EZPY126/		
TEACHING STAFF:	I. Poulopoulou		

(2) LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, students will be able (according to Bloom) to: • Explain the basic functions of grazed ecosystems and the abiotic factors that determine them (Knowledge / Comprehension). • Analyze the potential and limitations of different types of pastures in terms of livestock production and the environmental services they provide (Analysis / Comprehension). • Describe the mechanics of grazing by livestock and its effects on pasture dynamics (Knowledge / Comprehension). • Apply basic tools and techniques for managing pastures and meadows effectively (Application). • Evaluate methods for improving pastures and determine appropriate criteria for their implementation (Evaluation / Synthesis).
General Competences
• Searching, analyzing and combining data and existing knowledge • Autonomous work • Group work • Appreciation for nature and natural life

(3) SYLLABUS

1. Introduction to grazing ecosystems (natural pastures and artificial swards): definitions, types of pastures. 2. Ecological importance of pastures - Environmental factors and vegetation 3. Plant-animal-soil interactions, nutrient cycles (physicochemical characteristics and their effect on productivity) 4. Grazing management systems: continuous & rotational grazing, sustainable use, pasture improvements 5. Meadow plants and artificial swards – possibilities and limitations 6. Pasture improvement techniques: sowing, fertilization, flora renewal, infrastructures 7. Grazing land quality assessment – composition, coverage, botanical diversity, seasonal productivity 8. Relationship between grazing and animal nutritional needs – impact of seasonality, plant stage, and management practices 9. Sustainable pasture management – impact of grazing on biodiversity 10. Climate change and its impact on pastures – adaptation strategies 11. Interaction between grazing animals and wildlife – challenges and opportunities for coexistence 12. Modern technology: remote sensing, GIS, sensors, grazing land monitoring tools
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(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	Teaching room and in the lab, in person	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	PowerPoint and video presentations for theory lectures Specialized software for grassland management Use of Teams/e-class	
TEACHING METHODS	Activity	Semester workload
	Lectures	50
	Lab work and exercises	40
	Working in groups	15
	Field visits	10
	Individual study	10
	Course total (25 h of workload per ECTS)	125
STUDENT PERFORMANCE EVALUATION	I. Written exam (70%) including: • Short-answer questions • Problem solving involving the calculation of pasture management parameters II. Written group assignment and presentation (30%)	

(5) ATTACHED BIBLIOGRAPHY

• J. Holechek, R.D. Pieper, C.H. Herbel. „Range Management: Principles and Practices“6th Edition, Prentice Hall, 2011 • Γ. Σαρλή. «Βελτίωση και Διαχείριση Φυσικών Βοσκοτόπων», Εκδόσεις Σταμούλη, 1998 • Related scientific journals
