

KM641 - RANGELAND MANAGEMENT

LEVEL	<i>Undergraduate</i>		
CODE	KM641	STUDENT SEMESTER	6th
COURSE TITLE	Rangeland Management		
ACTIVITIES		WEEKLY HRS	ECTS
Lectures		2	
Workshops		1	
TOTAL		3	5
TYPE OF COURSE	Compulsory course / Generic knowledge		
PREREQUISITES:	None		
LANGUAGE TEACHING AND EXAMINATION:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	Yes		
WEBPAGES COURSE (URL)			

1. LEARNING OUTCOMES

Learning Outcomes
<p><u>Knowledge</u></p> <p>To provide the graduates of the Department with the essential background knowledge concerning the proper use, sustainable management, development, health and carrying (grazing) capacity of rangelands, methodology for creating a management model for rangelands and the spatial and temporal organization of livestock.</p>
<p><u>Skills</u></p> <p>To enable the graduates of the Department to fully comprehend the subjects of natural ecosystem management. In that way, students will be able to design rangeland management plans and implementation manuals.</p>
<p><u>Competences</u></p> <ul style="list-style-type: none"> • Researching and performing analysis and synthesis of data and information by means of appropriate technology. • Working in a multidisciplinary context • Adapting to new conditions • Producing new research ideas • Respect for the natural environment • Designing and managing working projects

2. COURSE CONTENT

<p>Description of the theoretical part:</p> <p>The economic importance of rangelands - Rangeland inventory- Regular use - Rangeland management principles - Spatial and temporal organization of livestock - Methods of rangeland improvement - Multiple use - Management principles of wet meadows</p> <p>An hourly workshop takes place every week and at least 50% attendance is mandatory for students. The importance of attending the theoretical classes as well as the workshops is stressed from day one and students are motivated in various ways to maintain participation. The workshops constitute,</p>

in fact, an essential component of the theoretical part, which includes:

The process of creating an inventory of rangelands - Rangeland maps – Methods to calculate grazing capacity, stocking rate, plant preference index, balance assessment of grazing capacity / stocking rate – Grazing Management Plans (structure of a plan, methodology for integrated rangeland management- special management plans – Rangeland improvement (methods to calculate cost of fertilization, ploughing – seeding – prevention of expansion of undesirable plant species – Methodologies to census agroforestry systems – Wet grasslands management.

The workshops aim to help the student enhance the knowledge acquired during the theory classes by means of practical exercise, constructive conversations, and problem solving, as well as develop a conscious knowledge that they can use in order to put basic principles of the field into practice.

The course includes compulsory field trips to various types of terrestrial natural ecosystems. Relevant guidelines and content-rich material are uploaded on the e-class platform.

3. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY METHOD	<p>The Herbartian approach in teaching is employed, which includes the following stages:</p> <ol style="list-style-type: none"> 1. Preparing the students to receive new knowledge, mainly by utilizing their previous knowledge on the subject. 2. The new lesson unit is presented. 3. New knowledge is compared/associated with previous knowledge. 4. Generalization and conclusions. 5. Application of new knowledge in practice. <p>The lesson consists of two parts: Theoretical part, Practical work / Workshops</p> <p>The theoretical part requires the active participation of the students in the learning process that takes place in the classroom and involves the use of interactive tools. Students are encouraged to participate in research activities.</p> <p>Workshops entail the compulsory participation of the students in activities they select from the activity list of each unit of the coursebook. Furthermore, important research findings in specific sectors of this scientific field are stated and discussed. Lastly, educational field trips take place during the semester, in which student participation is compulsory.</p>
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	<ul style="list-style-type: none"> - interactive tools - e-class - use of an e-book <p>(https://repository.kallipos.gr/handle/11419/1191)</p> <ul style="list-style-type: none"> - contact with the students via (a) the e-class platform and (b) e-mail

MANAGEMENT OF TEACHING	Activity	Semester Workload
	Lectures	35
	Workshops	30
	Individual and work study for term assignment	60
	Course Total	125
STUDENT EVALUATION	(a) Student assessment for the theoretical part of the course takes place at the end of the semester by means of written examination which follows the format of all courses offered at the Department. By prior agreement, students can also be assessed for the theoretical part by means of progress tests that take place on a mutually agreed date during the semester, according to the Department schedule. Students who are entitled to participate in the assessment processes are those who have participated in all the field trips that took place during the semester. The theoretical part accounts for the 65% of the final grade.	
	(b) Student assessment for the Workshops takes place at the end of the semester by means of written examination, which follow the format of all courses offered at the Department. Students who are entitled to participate in the assessment process are those who (a) have attended a minimum of 50% of the classes, and (b) have participated in all the field trips that took place during the semester. The assessment of the Workshops accounts for the 35% of the final grade.	

4. RECOMMENDED BIBLIOGRAPHY

Books offered to students through the *Eudoxus* platform:

- Vrahnakis M. 2015. Rangeland Science. Kallipos, Open Academic Edition, p. 229. <https://repository.kallipos.gr/handle/11419/1191> (Eudoxus code: 320084, in Greek)
- Nastis A.S. and K.N. Tsiouvaras. 1991. Rangeland Management and Improvement. Aristotle University of Thessaloniki, p. 142 (Eudoxus code: 17206)
- Papanastasis V.P. 2009. Rangeland Livestock Development. Thessaloniki: Giahoudis Publications, p. 157 (Eudoxus code: 12545).

Books offered besides the *Eudoxus* platform:

- Heady H.F. and R.D. Child. 1994. Rangeland Ecology and Management. Westview Press, 519 p.
- Wallis de Vries M.F., J.P. Bakker and S.E. van Wieren. 1998. Grazing and Conservation Management. Kluwer Academic Publishers, pp. 374.

