

Farming of Domestic Ruminants [2995]

COURSE OUTLINE

(1) GENERAL

SCHOOL	ANIMAL BIOSCIENCES		
ACADEMIC UNIT	DEPARTMENT OF ANIMAL SCIENCE		
LEVEL OF STUDIES	Undergraduate [Required]		
COURSE CODE	2995	SEMESTER	7th
COURSE TITLE	FARMING OF DOMESTIC RUMINANTS		
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>		WEEKLY TEACHING HOURS	CREDITS
Theory		3	2
Laboratory Practicals		3	3
TOTAL		6	5
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Field of Science		
PREREQUISITE COURSES:	-		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK		
IS THE COURSE OFFERED TO ERASMUS STUDENTS:	Yes (in English)		
COURSE WEBSITE (URL):	Theory: https://oeclass.aua.gr/eclass/courses/EZPY104/ (in Greek) Laboratory: https://oeclass.aua.gr/eclass/courses/EZPY110/ (in Greek)		
TEACHING STAFF:	THEORY: P. Simitzis, G. Laliotis LABORATORY: P. Koutsouli, P. Simitzis, G. Laliotis		

(2) LEARNING OUTCOMES

Learning outcomes
<i>The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.</i>
Consult Appendix A - Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area - Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B - Guidelines for writing Learning Outcomes
The course "Farming of Domestic Ruminants" aims to familiarize students, in theoretical and practical level, with the contemporary methods applied in husbandry of large and small ruminants. Upon successful completion of the course, students will be able (according to Bloom) to: - Explain the necessary conditions for efficient farming and analyze the possibilities for development and perspectives of dairy, beef, sheep, and goat production through estimation of global livestock metrics (live animals, meat, and milk production) (Comprehension / Analysis). - Describe the characteristics of the most common breeds of cows, sheep, and goats and evaluate their performance using appropriate breeding systems (Knowledge / Comprehension / Evaluation). - Identify and analyze the factors influencing conception rate, gestation duration, and parturition, as well as the factors used to estimate reproductive potential (prolificacy rate, viability rate, profitability rate) (Comprehension / Analysis / Evaluation). - Explain the factors affecting milk production, mammary gland growth, and lactation development in ruminants (Comprehension / Analysis). - Analyze the factors influencing carcass and meat production in ruminants and propose management strategies to optimize outcomes (Analysis / Evaluation / Application).
General Competences
<i>Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear</i>

below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information,
with the use of the necessary technology
Adapting to new situations
Decision-making
Working independently
Team work
Working in an international environment
Working in an interdisciplinary environment
Production of new research ideas

Project planning and management
Respect for difference and multiculturalism
Respect for the natural environment
Showing social, professional and ethical responsibility and sensitivity to gender issues
Criticism and self-criticism
Production of free, creative and inductive thinking
.....
Others...
.....

- Individual and group work
- Producing new research ideas
- Promotion of free, creative and inductive thinking

(3) SYLLABUS

1. Cattle and beef farming

- Origin. Breeds, cow meat productive, milk productive, dual purpose productive and indigenous breeds.
- Cattle and beef farming in Greece, Europe and Worldwide.
- Management of cattle breeding.
- Cattle reproduction: Body condition, reproductive management during mating and gestation. Cow birth. The care of newborn calf. The nursing calf. Feeding and growth of calf. Reproductive performance of the herd. Troubleshooting in reproductive performance.
- Milk production: Milking. Factors affecting milk production. Milk productive efficiency. Troubleshooting in milk production.
- Fattening calves: conditions of effective fattening. Weaning. Requirements for calf fattening and different systems. Slaughter conditions and carcass quality. Management of a beef farm enterprise unit.

2. Sheep farming

- Origin, domestication and evolution of sheep and goat. Global animal production and distribution.
- Global meat production, milk and wool production.
- Breeds of milk-, meat-, wool- producing sheep and goats
- Estimation of sheep and goat body condition.
- Reproduction and reproductive control.
- Sheep and goat milk production and quality.
- Growth and fattening. Quality of lamb carcass and meat.
- Genetic improvement. Management of the flock. Productive systems in sheep farming.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	In class, face to face.	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	PowerPoint and video presentations. Communication with students via e-mail. Teaching support through access to the e-class platform, to on-line databases etc	
TEACHING METHODS <i>The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc. The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i>	Activity	Semester workload
	Lectures	39
	Laboratory practice	39
	Individual study	47
	Course total (25 h of workload per ECTS)	125
STUDENT PERFORMANCE EVALUATION <i>Description of the evaluation procedure Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions,</i>	The evaluation on the course's theory consists of: 1. final written examination on the course's theory (80-100%), consisting of: • Evaluation of elements of the course's theory • Short-answer questions • Multiple choice questions 2. Personal written essay and its presentation	

<i>problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i> <i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i>	The evaluation on the course's laboratory practice is determined by the final written examination (100%) consists of: • Evaluation of elements of the course's theory • Short-answer questions • Multiple choice questions
---	---

(5) ATTACHED BIBLIOGRAPHY

Proposed Literature: • John Webster (2020): Understanding the Dairy Cow, 3rd Edition, Wiley Blackwell. • Yapp W and Nevens W.B. (2017): Dairy Cattle Management : Selection, Feeding And Management. Medtech • Crawford B (2022). Dairy Cattle Management. States Academic Press • Fayed I., Marai M., Owen J.B. (2013). New Techniques in Sheep Production • Kaushish S.K. (2019): Sheep Production in Tropics and Subtropics • Solaiman S.G. (2010): Goat Science and Production • Kukovics S. (2023): Goat Science: Environment, Health and Economy -Related Scientific Journals: Animal Science, Small Ruminant Research, Animals, Animal, Journal of Dairy Science, Journal of Animal Science -Digital Education Material: Sheep and Goat Production 1: Introduction – Statistics – Breeds Sheep and Goat Production 2: Reproduction – Milk and Meat Production Cattle Production. Lecture notes.
