COURSE DESCRIPTION

1. ΓΕΝΙΚΑ

SCHOOL	**Animal Biosciences**		
TEACHING DEPARTMENT	**Animal Science**		
STUDY LEVEL	**Undergraduate – Compulsory**		
COURSE CODE	**125**	**semester**	1ο και 3ο
DEPARTMENT TO WHICH IS OFFERED:	**ΑΟΑ (1ο Υ) , ΕΤΔΑ (3ο Υ), ΑΦΠΓΜ (3ο Υ), ΕΦΠ (3ο Υ), ΒΙΟ (3ο Ε) ΔΙΓΕΣΕ (1ο)**		
COURSE TITLE	ANIMAL HUSBANDRY (Zootechnia)		

INDEPENDENT TEACHING ACTIVITIES *In case ECTS are awarded for distinct parts of the course e.g. Theory Lectures, Laboratory Practicals etc. If ECTS are awarded uniformly for the entire course, give the weekly teaching hours and total ECTS.*	**WEEKLY TEACHING HOURS**	**ECTS**
Theory Lectures	2	2
Laboratory practicals	2	2
TOTAL		4

COURSE TYPE *Background, Basic knowledge, Field of Science, Skill development*	Field of Science
PREREQUISITES	no
LANGUAGE	Greek
IS THE COURSE OFFERED to ERASMUS STUDENTS?	Yes (in English)
COURSE WEB PAGE (URL)	https://oeclass.aua.gr/eclass/courses/2705/
INSTRUCTOR(S):	Theory: Koutsouli P., Politis I., Karakatsouli N. Laboratory: Theodorou G., Goliomytis M., Laliotis G., Simitzis P., Kominakis A.

2. LEARNING OUTCOMES

Learning outcomes

Describe the learning outcomes of the course, the specific knowledge, skills and competences of an appropriate level that students will acquire after successfully completing the course.

Refer to Appendix A.

- *Description of the level of learning outcomes for each course of study in line with the European Higher Education Area Qualifications Framework*
- *Descriptive Indicators of Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning*
- *and Annex B*
- *Learning outcomes Writing Guide*

The aim of the course is to present students with the necessary and up-to-date knowledge on basic issues of animal husbandry.

More specifically: Upon successful completion of this course, the student will have an understanding of (1) the biological basis of farm animal performance, i.e., the phenomena of growth, reproduction and dairy production with the ultimate goal of producing higher quality meat, the emergence of better reproductive capacity and the production of the highest quality and quantity of dairy production, respectively, (2) the creation of genotypes adapted to a specific environment, (3) ensuring welfare to achieve the development of their genetic potential, and (4) the organisation of production systems where appropriate animal products are produced with the maximum economic benefit

General competencies

Considering the general competencies that the graduate (as reported in the Diploma Supplement and listed below) must have acquired, describe in which one(s) the course is intended.

Search, analyze and synthesize data and information, using the necessary technologies
Adapt to new situations
Decision making
Autonomous work
Teamwork
Work in an international environment
Work in an interdisciplinary environment
Production of new research ideas
Project design and management
Respect for diversity and multiculturalism
Respect for the natural environment
Demonstration of social, professional and moral responsibility and sensitivity to gender issues
Exercise of criticism and self-criticism
Promotion of free, creative and inductive thinking

- The six (6) laboratory exercises within the course refer to tours of the GPA's Livestock Farm, so that the student can get in touch with the way of rearing the agricultural - productive animals available at the GPA. Through these exercises, the student will be able to familiarize himself with the animal as a single organism, with its conformation, characteristics and movements, so that he can distinguish the merits and demerits of the animal, elements necessary for the understanding of the course of animal husbandry.

3. SYLLABUS

Importance of animal production: Usefulness of animals. Food competition between humans and animals. Animal production and the environment.

Origin and domestication of farm animals. Causes of domestication of livestock. Time and place of domestication.

Breeds of farm animals: definition and evolution of the concept of breed. Criteria for classification and subdivision of breeds of cattle, sheep, goats and pigs.

Definition and importance of conservation of rare breeds.

Population and quantitative genetics of farm animals. Hardy-Hardy and Weinberg.

Genotypic, phenotypic and hereditary values. Heritability coefficient. Selection index.

Selective progress. Heterosis. Crossbreeding of three lines.

Farm animal husbandry systems: intensive, extensive, semi-extensive.

Growth of farm animals: concept and assessment of growth. Growth rate. Concept, definition and definition of livestock production. Muscle and adipose tissue. Body composition. Carcass and meat quality.

Reproduction of farm animals: structure and function of the male and female reproductive systems. Reproductive hormones. The male and female reproductive system, male and female reproductive organs. Gametogenesis. Estrous cycle. Fertilization. Physiology of childbirth. Synchronization of oestrus. Artificial insemination.

Dairy production in farm animals: structure of the breast in dairy animals. Chemical composition of milk. Milking curve. Dry period of cows. Factors influencing milk yield.

Aquaculture:
Aquaculture farming systems worldwide and in Greece. Suitability
of water temperature, salinity in aquaculture. Breeding Mediterranean fish species.

4.TEACHING and LEARNING METHODS - EVALUATION

TEACHING METHOD *Face to face in classroom, Distance Learning, etc.*	In classroom (Power Point presentations in theory and in laboratory)
USE OF INFORMATICS and COMMUNICATION TECHNOLOGIES *Use of ICT in Teaching, Laboratory Practicals, Communication with Students etc.*	1. Face to face in the classroom 2. Use of ICT in Teaching, Laboratory Education and Communication with students. 3. Use of the integrated e-course management system. Power point presentations with audio, video presentations. 4. Communication with students via Open e-class and via e-mail. 5. References to selected scientific websites.
TEACHING ORGANIZATION *Describe in detail the methods of teaching: Lectures, Seminars, Laboratory Practicals, Field Exercise, Study and Analysis of Bibliography, Tutorial, Practice (Placement), Clinical Exercise, Art Workshop, Interactive Teaching, Educational Visits, Project Work, Authoring, Artistic creation etc.* *The student's study hours for each learning activity and hours of non-guided study are indicated so that the total workload at the semester corresponds to the ECTS*	

Activity	***Work load (h) per semester***
Lectures in theory	26
Laboratory Exercises in large groups of students	26
Independent Study	48
Total work load (25 h work load per ECTS)	***100***

STUDENTS' EVALUATION *Description of the evaluation process* *Assessment Language, Assessment Methods, Formulation or Conclusion, Multiple Choice Test, Short Response Questions, Test Questions,*	**I.** Theory Written final exams (100%) with open-ended questions, short answer questions and multiple-choice questions.

Problem Solving, Written Work, Reporting, Oral Examination, Public Presentation, Laboratory Work, Clinical Patient Examination, Artistic Interpretation, Other *Identify certain evaluation criteria and state if and where they are accessible by the students.*	**II.** Laboratory Assessment of skills in laboratory measurements and written examination with questions. **III.** Evaluation is conducted in Greek **IV.** The grade in theory results 100% from the final written examination. **V.** The grade in laboratory results 100% from the final written examination.

5.BIBLIOGRAPHY

Theory:

(A) Printed Related scientific journals - Publications:

Rogdakis Emm. (2008): Genetic Improvement of Farm Animals, Publ. Stamoulis, Athens.

Zygogiannis D. (2006): Sheep farming, Ruminants farming (vol. A), Synchroni paideia, Thessaloniki.

Katsaounis N. (1994): Sheep farming, Kyriakidis Publishers, Thessaloniki.

(B) Digital Educational Materials (e-class):

Koutsouli P., Lectures on relevant chapters of the course (pdf files), 2024

Politis I., Lectures on relevant chapters of the course (pdf files), 2024

Karakatsouli N., "Aquaculture" (ppt), 2018.

(C) Recommended Textbooks (EUDOXOS):

Rogdakis Emm. (2006): General Animal Husbandry, Publisher Ath. Stamoulis / Code in «EVDOXOS»: 22680

Laboratory:

files pdf [(Charismiadou M. (cow farm), P. Koutsouli (sheep farm), M. Goliomytis (poultry farm), 2015)].