COURSE OUTLINE

(1) GENERAL

SCHOOL	ANIMAL BIOSCIENCES		
ACADEMIC UNIT	DEPARTMENT OF ANIMAL SCIENCE		
LEVEL OF STUDIES	Undergraduate [Required]		
COURSE CODE	495	**SEMESTER**	9th
COURSE TITLE	ECONOMICS IN ANIMAL PRODUCTION		

INDEPENDENT TEACHING ACTIVITIES *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*	**WEEKLY TEACHING HOURS**	**CREDITS (ECTS)**
Lectures and practical exercises	4	4
Total	**4**	**4**
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Skills development
PREREQUISITE COURSES:	Rural Economics and Policy (3rd Semester)
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS:	-
COURSE WEBSITE (URL):	https://mediasrv.aua.gr/eclass/courses/EZPY133/

(2) LEARNING OUTCOMES

Learning outcomes

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.

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 purpose of the course, which follows a series of economics-focused courses taught in previous semesters (Political Economy, Agricultural Economics and Policy), is to introduce students of the Department of Animal Science and Aquaculture to the concepts of recording and evaluating farm operations, as well as decision-making in livestock enterprises.

The course content aims to familiarize students with methods for calculating production costs and economic outcomes of livestock farms, considering the specific characteristics of the production process in the livestock sector. Furthermore, the course introduces methods for the techno-economic evaluation of farm operations in relation to both the external and internal environment of production units. Finally, the course aims to introduce and familiarize students with decision-making methods regarding the establishment or operation of livestock enterprises, using examples and appropriate software tools.

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

- Understand the concept of techno-economic recording of livestock farm operations.
- Have knowledge of methods for calculating production costs and economic outcomes in animal production.
- Understand the concept of evaluating the techno-economic performance of livestock farms and be familiar with the methods and tools for its implementation.
- Understand the decision-making process in livestock enterprises and use the corresponding methods and tools.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear 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	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	.....
Production of new research ideas	*Others...*
	.....

- Search, analysis, and synthesis of data and information, using the necessary technologies
- Adaptation to new situations
- Decision-making

(3) SYLLABUS

i. Factors of agricultural production (land, labor, capital), classification of capital, farm assets, and their valuation.
ii. Expenses and production costs (definition, basic production expenses, categories and classification of production expenses, types of costs).
iii. Calculation of production expenses for intermediate and final branches of the agricultural enterprise. Applications in livestock farms that produce their own animal feed.
iv. Calculation of production costs for joint products of livestock activity. Applications in livestock farms with combined production of milk, meat, wool, and manure.
v. Economic results of mixed crop-livestock activity.
vi. Farm operation analysis (group analysis). Applications in livestock farms.
vii. Isolated analysis of production factors. Analysis of farm machinery utilization, cost of use relative to the optimal limit. Efficiency limits between two or more machines. Analysis of labor utilization (calculation of required vs. employed labor). Applications in livestock farm management problems.
viii. Decision-making using Agricultural Budgeting methods (partial budget, break-even budget, parametric budget, cash-flow budget, total budget). Applications in livestock farms.
ix. Decision-making using Linear Programming methods (graphical method, Simplex algorithm, Big M method, dual problem, sensitivity analysis). Applications in livestock farms.

(4) TEACHING and LEARNING METHODS - EVALUATION

TEACHING METHOD *Face-to-face, Distance learning, etc.*	In the classroom
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Use of specialized software for the calculation of production costs and economic outcomes, as well as for the application of partial budgeting and linear programming.

TEACHING METHODS
The manner and methods of teaching are described in detail.

Activity	***Semester workload***
Lectures	52

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*	Independent study: 48 **Course total (25 h of workload per ECTS): *100***
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	I. The language of assessment is Greek. II. The grade for the theoretical component is based on the final written examination.

(5) ATTACHED BIBLIOGRAPHY

- **Suggested Bibliography:**

1. Spathis, P., Tsimpoukas, K., *Business Economics: Applications in Food and Agricultural Enterprises*, Ellinoekdotiki, 2010.
2. Papanagiotou, E., *Economics of Animal Production*, Graphema Publications, 2008.

- **Relevant Scientific Journals:**

Agricultural Systems, ISSN: 0308-521X
Small Ruminant Research, ISSN: 0921-4488
Journal of Agricultural Economics, Print ISSN: 0021-857X, Online ISSN: 1477-9552