COURSE LAYOUT

1. GENERAL

SCHOOL	ANIMAL BIOSCIENCES		
DEPARTMENT	ANIMAL SCIENCE		
STUDY LEVEL	Bachelor		
COURSE CODE	171	**SEMESTER**	8th
COURSE TITLE	Feed Manufacturing Technology		

INDEPENDENT TEACHING ACTIVITIES	**WEEKLY TEACHING HOURS**	**ECTS**
Theory: Lectures	2	2

COURSE TYPE	Field of Science, General Knowledge, Skills development
PREREQUISITES	-
LANGUAGE	Greek
IS THE COURSE OFFERED forERASMUS STUDENTS?	No
COURSE WEB PAGE (URL)	https://mediasrv.aua.gr/eclass/courses/EZPY206/

2. LEARNING OUTCOMES

Learning Outcomes

The course is essential to acquire the knowledge necessary in the topic of feedstuffs preparation/processing, as well as the production procedure of composite feedstuffs. Following the lectures, the students will be able to combine data from different topics and successfully manage diet preparation.
In particular, the students will be capable of:

- Understanding the criteria of quantitative and qualitative selection of the appropriate (according to animal species) raw materials (individual feedstuffs).
- Selecting the appropriate raw material process prior to the final diet preparation.
- Understanding the operation and use of all the required equipment (machinery) in feed industries.
- Understanding the structure and management of a feed industry, as well as the aspects of the quality control in the products.
- Conducting proper interventions in several operation parameters, so as to maximize feed production and improve product quality.

General Competenses

- Decision making
- Individual and group work
- Combination of several scientific topics
- Work planning and management
- Respect to the natural enviroment

3. COURSE CONTENT

- Raw material selection according to the digestive physiology of each farm animal species, the age of the animals, the quality and the cost of the individual feedstuffs.
- Preparation/processing of the individual feedstuffs (washing, cutting, grinding, weighing, mixing etc.). Factors affecting the successful preparation of the feedstuffs (cutting and grinding size, feed particle size, grinding time, weighing precision, mixing time, pelleting parameters etc.).
- Buildings and equipment in feed industries (storage, silos, weighing scales, hammer mills, batch and continuous mixers, pellet presses, extruders, cooling systems, crumblers, sieving systems, liquid addition systems, transfer lines etc.).
- Management and operation of feed industries.
- Product categories and quality control (physical properties, chemical composition, antinutritional factors, microbiological control etc.).

4. TEACHING and LEARNING METHODS - Evaluation

TEACHING METHOD	In class, face to face.
USE OF INFORMATICS and COMMUNICATION TECHNOLOGIES	PowerPoint and video presentations for lectures. Communication with students via e-mail. Teaching support through access to the e-class platform, to on-line databases etc.
TEACHING ORGANISATION	

Activities	***Work load (h) per semester***
Lectures	26
Writing and presenting an assignment in the classroom, as a member of a small team (2-3 persons)	8
Individual study	16
Total work load (25 h work load per ECTS)	***50***

STUDENTS EVALUATION	**Theory** 1. Final written exam (80%) which includes: - Questions to develop a topic 2. Written assignment with presentation in the classroom (20%) Marking Scale: 0-10. Minimum Passing Mark: 5. The students are getting informed on the evaluation criteria during their first lesson of the semester.

5. BIBLIOGRAPHY

-Proposed Literature:

- Kalaisakis P. Applied Animal Nutrition. Ed. 2a 1982, Library of the Agricultural University of Athens.
- Kalaisakis P. Feedstuffs and Feedstuffs Technology. Library of the Agricultural University of Athens.
- McEllhiney R.R. Feed manufacturing Technology. American Feed Industry Association, 1994.

-Related Scientific Journals: -