

COURSE CURRICULUM

1. GENERAL INFORMATION

SCHOOL	ANIMAL BIOSCIENCES		
DEPARTMENT	ANIMAL SCIENCE		
STUDY LEVEL	UNDERGRADUATE		
COURSE CODE	0034	SEMESTER	8th
COURSE TITLE	Monogastrics Nutrition		
INDEPENDENT TEACHING ACTIVITIES		WEEKLY TEACHING HOURS	ECTS
<i>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.</i>			
Theory Lectures		3	3
Laboratory practicals		3	3
TOTAL		6	6
<i>Add lines if necessary. Teaching and Learning methods should be described in detail in section 4.</i>			
COURSE TYPE	Field of Science (theory), Skill development (laboratory practicals)		
<i>Background, Basic knowledge, Field of Science, Skill development</i>			
PREREQUISITES	Feedstuffs and Feedstuffs Technology, Nutritional Physiology		
LANGUAGE	Greek		
IS THE COURSE OFFERED to ERASMUS STUDENTS?	Yes (in English)		
COURSE WEB PAGE (URL)	https://mediasrv.aua.gr/eclass/courses/EZPY108/		

2. LEARNING OUTCOMES

<p>Learning outcomes</p> <p><i>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.</i></p> <p><i>Refer to Appendix A.</i></p> <ul style="list-style-type: none"> • <i>Description of the level of learning outcomes for each course of study in line with the European Higher Education Area Qualifications Framework</i> • <i>Descriptive Indicators of Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning</i> • <i>and Annex B</i> • <i>Learning outcomes Writing Guide</i>
<p>The course is essential to understand the basic definitions and principles of monogastrics nutrition. In particular, lectures and practicals aim to:</p> <ul style="list-style-type: none"> • The intensive study on monogastric energy and nutrient requirements depending on the animal species and production phase, as well as the feeding regimes so as to meet those requirements. • Select the appropriate feedstuffs for each species of monogastrics. • Study the effects of nutrients on metabolism and several physiological functions in order to promote health, optimize performance, and improve product quality (by fortifying the products with functional ingredients). • Learn diet formulation techniques by using linear programming software. • Following the lectures and laboratory practicals, the students will: • Possess full knowledge of the basic principles in monogastrics nutrition. • Be able to use the appropriate tools and techniques, and combine with all the necessary data, so as to formulate least-cost diets for each species of monogastrics.
<p>General competencies</p> <p><i>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.</i></p> <p><i>Search, analyze and synthesize data and information, using the necessary technologies</i> <i>Adapt to new situations</i></p> <p><i>Project design and management</i> <i>Respect for diversity and multiculturalism</i> <i>Respect for the natural environment</i></p>

<i>Decision making</i> <i>Autonomous work</i> <i>Teamwork</i> <i>Work in an international environment</i> <i>Work in an interdisciplinary environment</i> <i>Production of new research ideas</i>	<i>Demonstration of social, professional and moral responsibility and sensitivity to gender issues</i> <i>Exercise of criticism and self-criticism</i> <i>Promotion of free, creative and inductive thinking</i>
<ul style="list-style-type: none"> • Search, analyze and synthesize data and information using the necessary technologies • Promotion of free, creative and inductive thinking 	

3. COURSE CONTENT

<ul style="list-style-type: none"> • Pig nutrition (principles and objectives): Effects of nutrition on pig productive performances. Factors affecting the energy, protein, amino acid, mineral and vitamin requirements in pigs. Diet formulation and feeding techniques in sows, boars and piglets. Systems and feeding techniques in prefattening and finishing pigs). • Poultry nutrition: digestive system peculiarities, factors affecting feed intake, diet formulation principles, feeding techniques. Nutrition of layer hens, reproduction birds and broiler chickens. Nutrition of turkeys, ducks, geese, quails, doves, pheasants etc. Effects of diet on meat and egg quality. • Rabbit nutrition: digestive system physiological background and peculiarities, diet formulation and feeding techniques during reproduction and growth, effects of diet on meat quality.
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4. TEACHING and LEARNING METHODS - EVALUATION

<p style="text-align: center;">TEACHING METHOD</p> <p><i>Face to face in classroom, Distance Learning, etc.</i></p>	Face to face in classroom	
<p style="text-align: center;">USE OF INFORMATICS and COMMUNICATION TECHNOLOGIES</p> <p><i>Use of ICT in Teaching, Laboratory Practicals, Communication with Students etc.</i></p>	<ul style="list-style-type: none"> • PowerPoint and video presentations for theory lectures. • Modern linear programming software (diet formulation in PCs) in laboratory practicals. • Communication with students via e-mail. • Teaching support through access to the e-class platform, on-line databases etc. 	
<p style="text-align: center;">TEACHING ORGANIZATION</p> <p><i>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.</i></p> <p><i>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</i></p>	Activity	Work load (h) per semester
	Lectures in theory	39
	Laboratory practicals: diet formulation principles and techniques, using linear programming software.	39
	Training tours (visits in animal farms).	10
	Individual study of students on diet formulation	62
	Total work load (25 h work load per ECTS)	150
<p style="text-align: center;">STUDENTS' EVALUATION</p> <p><i>Description of the evaluation process</i></p> <p><i>Assessment Language, Assessment Methods, Formulation or Conclusion, Multiple Choice Test, Short Response Questions, Test Questions, Problem Solving, Written Work, Reporting, Oral Examination, Public Presentation, Laboratory</i></p>	<p>The evaluation on the course's theory consists of final written examination with long-answer questions.</p> <p>The evaluation on the course's laboratory practicals consists of formulating diets using linear programming (by proper</p>	

<p><i>Work, Clinical Patient Examination, Artistic Interpretation, Other</i></p> <p><i>Identify certain evaluation criteria and state if and where they are accessible by the students.</i></p>	<p>combination of animal requirements and feedstuffs chemical composition)</p> <p>The final mark is calculated as the average of the theory (50%) and lab practicals (50%) marks.</p> <p>Marking Scale: 0-10.</p> <p>Minimum Passing Mark: 5.</p> <p>The students are being informed on the evaluation criteria during their first lesson of the semester.</p>
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5. RECOMMENDED BIBLIOGRAPHY

- Proposed Literature:

- Kalaisakis P. Applied Animal Nutrition. Ed. 2a 1982, Library of the Agricultural University of Athens.
- Zervas G., Kalaisakis P., Fegeros K. Farm Animal Nutrition. Ed. b 2004, Stamoulis Editions.
- Zervas G. Farm Animal Diet Formulation. Ed. a 2007, Stamoulis Editions.

- Related Scientific Journals:

- Animal Science Review
- Animal
- Poultry Science
- Animal Feed Science and Technology
- World Rabbit Science