ACADEMIC YEAR 2023/2024

General information	
Academic subject	**ANIMAL NUTRITION** integrated exam of ANIMAL PRODUCTION II
Degree course	Animal Science L38
Academic Year	II year
European Credit Transfer and Accumulation System (ECTS)	6
Language	Italian
Academic calendar (starting and ending date)	II semester: 26/02/2024 – 14/06/2024
Attendance	

Professor/ Lecturer	
Name and Surname	Vincenzo Tufarelli
E-mail	vincenzo.tufarelli@uniba.it
Telephone	+39080 544 3918
Department and address	Campus of Veterinary Medicine, S.P. 62 to Casamassima km 3, 70010 Valenzano (Ba)
Virtual headquarters	Microsoft Teams platform if necessary
Tutoring (time and day)	Monday and Wednesday 2.30- 3.30 pm According to an appointment requested by e-mail.

Syllabus	
Learning Objectives	Nutritional evaluation of animal feeds. Rationing of the main livestock species: cattle, sheep, goat, pig, horse, poultry, rabbit and pets.
Course prerequisites	Exam: Principles of Physiology and Endocrinology of Domestic Animals. Basic knowledge of biochemistry, animal anatomy and physiology.
Contents	Chemical composition of feeds of zootechnical interest: carbohydrates, lipids, nitrogenous substances, minerals and vitamins. Evaluation feeds quality. Digestion, absorption, and metabolism in ruminant and non-ruminant species. Nutritional value: digestibility, systems of expression of the energy and protein value in the different species. Animal feeds: green and preserved fodder (hay, haylage, silage), cereals and their by-products, oilseeds and by-products. Residues from the food/feed industry, mineral and vitamin supplements, natural additives. Nutritional requirements and rationing factors of animals in maintenance, gestation, growth and production (meat, milk, eggs). Rationing of livestock species: cattle, sheep, goat, pig, horse, rabbit, poultry and pets. Feed technology: principles of legislation on feed preparation and innovative technological treatments of animal feeds.
Books and bibliography	M. Antongiovanni, A. Buccioni, M. Mele. Nutri*zione e Alimentazione degli Animali in Produzione Zootecnica*. Edagricole-New Business Media. B. Ronchi, G. Savoini, M. Trabalza Marinucci. *Manuale di Nutrizione dei Ruminanti da Latte*. EdiSES Università. Z. Davies. *Introduzione alla Nutrizione Equina*. Edizione italiana a cura di Marcello Hinxman-Allegri e Giuseppe Iardella. Raffaello Cortina Editore.

U.O. Didattica e servizi agli studenti
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	G. Biagi, B. Chiofalo, M.I. Cutrignelli, A. De Angelis, E. Fusi, G. Meineri, L. Prola, R. Ricci, M. Sandri. *Nutrizione e Alimentazione del Cane e del Gatto*. Edagricole-New Business Media. Scientific papers.
Additional materials	Lessons distributed during the course integrate the reference bibliography.

Work schedule			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
Hours			
150	***40***	***10***	***100***
ECTS			
6	***5***	***1***	

Teaching strategy	
	The course contents will be treated with the support of Microsoft PowerPoint presentations in the classroom.
Expected learning outcomes	
Knowledge and understanding on:	○ Knowledge of the field and laboratory techniques for the nutritional evaluation of feeds of zootechnical interest.
Applying knowledge and understanding on:	○ The student must be able to relate the quantitative and qualitative characteristics of the animal production to the characteristics of the diet supplied.
Soft skills	• *Making informed judgments and choices* ○ Ability to independently judge data related to zootechnical issues or to represent and solve problems inherent to animal feeding. • *Communicating knowledge and understanding* ○ Rationing of livestock and companion animals: cattle, sheep and goat, pig, horse, poultry, rabbit and pets. • *Capacities to continue learning* ○ Ability to maintain, develop and expand the knowledge acquired.

Assessment and feedback	
Methods of assessment	Oral exam on topics as for program. The student must demonstrate the skills acquired during the course, the knowledge of the principles of animal nutrition; the student will have to demonstrate mastery of technical language and the relationship between animal nutrition and quality of livestock production.
Evaluation criteria	• *Knowledge and understanding* ○ Knowledge of the field and laboratory techniques for the nutritional evaluation of feeds of zootechnical interest. • *Applying knowledge and understanding* ○ The student must be able to relate the quantitative and qualitative characteristics of the animal production to the characteristics of the diet supplied. • *Autonomy of judgment* ○ The student will have to demonstrate that he is able to make his own judgments, including through the autonomous processing and application of the knowledge and skills acquired. • *Communicating knowledge and understanding*

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	○ Rationing of livestock and companion animals: cattle, sheep and goat, pig, horse, poultry, rabbit and pets. • *Communication skills* ○ The student must have property of language and expository clarity, also in using of specific scientific and technical terminology. • *Capacities to continue learning* ○ Ability to maintain, develop and expand the knowledge acquired.
Criteria for assessment and attribution of the final mark	The final grade is in thirtieths. The exam is passed when the grade is greater than or equal to 18/30. The evaluation acquired in this exam, to that of Rabbit, Poultry Science and Aquaculture, will contribute to the final evaluation of the integrated examination of Animal Production II.
Additional information	
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