

## DIETARY NUTRITION

<b>Study program</b>	Veterinary Medicine
<b>Year of study</b>	III
<b>Semester</b>	I
<b>Regime of discipline</b>	DOP
<b>Category of discipline</b>	Dpa
<b>Number of lectures hours per week</b>	1
<b>Number of seminar/laboratory/project hours per week</b>	2
<b>Total number of hours according to the curriculum: lectures/seminars/laboratory/project</b>	14 hours of course/ 28 hours of laboratory
<b>Number of transferable credits</b>	2

### SPECIFIC SKILLS

<b>Professional Competence</b>	<p><i>C 5.</i> The discipline of Dietary Nutrition ensures:</p> <ul style="list-style-type: none"> <li>• Specification of appropriate techniques for animal care in the treatment of diseases, as well as during pre- and post-operative periods.</li> <li>• Application of therapeutic principles in prescribing dietary treatments and formulating personalized diets according to the physiological and pathological condition of animals.</li> <li>• Knowledge of the nutritional value of the main groups of feed and food used in therapeutic diets.</li> <li>• Compliance with and implementation of feeding standards that ensure conditions similar to those of a healthy animal, through the use of knowledge in physiology and metabolism.</li> <li>• Development and management of appropriate diets, respecting rearing technology, animal welfare, and environmental protection.</li> <li>• Authorization of the production, marketing, storage, and consumption of commercial feeds and homemade recipes, in accordance with safety standards and applicable legislation.</li> <li>• Quality and safety control of food products intended for animals through the use of modern analytical methods.</li> <li>• Conducting scientific research and professional training activities in the field of veterinary dietary nutrition, integrating the principles of One Health and sustainable development.</li> </ul>
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### LEARNING OUTCOMES

<b>Knowledge</b>	The student expresses the need and conditions for feeding and housing animals, with the aim of ensuring their welfare and protection, as well as environmental protection and increasing economic efficiency.
<b>Skills</b>	<p>The student estimates the relationships of animals with the natural and artificial living environment, created through housing (feeding, maintenance, etc.).</p> <p>The student applies the necessary hygiene measures to ensure the health and economic efficiency of livestock and estimates the main environmental protection measures against the resulting pollutants.</p>
<b>Responsibility and autonomy</b>	<p>The student evaluates, through specific methods, the main characteristics of raw materials and feed and of all microclimate factors in the shelter and the main indicators of animal welfare.</p> <p>The student analyzes international and national legislation regarding the welfare and protection of livestock, in terms of economic efficiency and companion and leisure animals.</p>

### COURSE OBJECTIVES

<b>General objective of the course</b>	<ul style="list-style-type: none"> <li>• The discipline of Dietary Nutrition introduces students to the principles of a healthy diet, aimed at preventing the occurrence of diseases or even forming an integral part of their therapeutic management.</li> <li>• Most diseases occurring in animals benefit from a hygienic-dietary treatment as the first therapeutic measure. The dietary component refers to the selection of easily digestible feeds, rich in nutrients, and presented in a highly accessible form.</li> <li>• Knowledge of data on nutrition and the specifics of feed utilization in domestic animal species allows the formulation of dietary rations and recipes based on an accurate diagnosis.</li> </ul>
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	<ul style="list-style-type: none"> <li>Data on the dietary nutrition of domestic animal species are also based on the knowledge acquired in the disciplines of Animal Nutrition and Agronomy, Physiology, Anatomy, and Biochemistry, and extend toward the hygienic-dietary treatment of all diseases taught in clinical disciplines, especially in the diagnosis of nutritional and metabolic diseases, cardiovascular, allergic, renal diseases, etc.</li> </ul>
<b>Specific objectives</b>	<p>The specific objectives of the Dietary Nutrition discipline aim at acquiring knowledge and understanding of terms, concepts, and both general and specific principles of the subject, its subdivisions, and its relationships with other disciplines. The focus is on how students understand, know, explain, and interpret the principles of a dietary, healthy, and economically efficient nutrition, while ensuring the health and welfare of animals.</p> <p>Affective-attitudinal relationships are developed in students who later choose to engage in the research activities of the discipline or complete their studies by writing their bachelor's thesis within the framework of the discipline.</p>

## COURSE CONTENT

<b>LECTURES</b>	Number of hours
Dietary Nutrition – Introduction, General Considerations	1
Dietary Nutrition According to Life Stages	1
Dietary Nutrition in Nutritional and Metabolic Diseases – Obesity	1
Dietary Nutrition in Nutritional and Metabolic Diseases – Hyperlipidemia	1
Dietary Nutrition in Exocrine Pancreatic Disorders and Diabetes	1
Dietary Nutrition in Gastrointestinal and Hepatic Disorders	1
Dietary Nutrition in Renal System Disorders	1
Dietary Nutrition in Dermatological Conditions and Food Allergies	1
Dietary Nutrition in Cardiovascular Disorders	1
Dietary Nutrition in Osteoarticular Disorders	1
Dietary Nutrition in Vitamin and Mineral Deficiencies	1
Dietary Nutrition in Oncological Diseases	1
Dietary Nutrition – Introduction, General Considerations	1
Dietary Nutrition According to Life Stages	1
<b>SEMINAR/LABORATORY</b>	Number of hours
Dietary Preparations	2
Formulation of Feed/Food Diets Used at Different Life Stages	2
Formulation of Feed/Food Diets Used in Nutritional and Metabolic Diseases – Feed Diets for Obesity	2
Formulation of Feed/Food Diets Used in Nutritional and Metabolic Diseases – Feed Diets for Hyperlipidemia	2
Formulation of Feed/Food Diets Used in Exocrine Pancreatic Disorders and Diabetes	2
Formulation of Feed/Food Diets Used in Gastrointestinal and Hepatic Disorders	2
Formulation of Feed/Food Diets Used in Renal System Disorders	2
Formulation of Feed/Food Diets Used in Dermatological Conditions and Food Allergies	2
Formulation of Feed/Food Diets Used in Cardiovascular Disorders	2
Formulation of Feed/Food Diets Used in Osteoarticular Disorders	2
Formulation of Feed/Food Diets Used in Oncological Diseases	2
Formulation of Feed/Food Diets Used for Sick Animals or Those in Special Physiological States	2
Formulation of Commercial and Homemade Feed/Food Diets	2
The knowledge check	2

### BIBLIOGRAPHY:

- Hotea Ionela, 2022- Note from course and laboratory – electronic material
  - Hotea Ionela, Colibar Olimpia, 2019 – Introduction to animal nutrition, Ed. Agroprint, Timisoara
  - Wu Guoyao, 2018 – Principles of animal nutrition, CRC Press.
- Bibliography supplementary:
- Hotea Ionela, Dragomirescu Monica, Berbeca Adina, Radulov Isidora, 2022 - Phytochemicals as Alternatives to Antibiotics in Animal Production, In: Antibiotics and Probiotics in Animal Food-Impact and Regulation, Publisher Intech Open.

## ASSESSMENT

Activity type	Assessment criteria	Assessment methods	Percentage of final grade
<b>Lectures</b>	Communication of information using specialized scientific language correctly circulated within the discipline of Dietary Nutrition	Periodic assessment (through oral evaluation tests on pre-established topics from the course)	<b>30%</b>
	Knowledge of basic concepts and acquire their own discipline		
	Originality and correctness of answers to building arguments pro / against		
	Demonstration of coherent thinking, logic, the exposure to ideas and the ability to apply theoretical knowledge to solve practical problems		
<b>Seminar/laboratory/clinical sessions</b>	Application acquisitions providing examples in conducting analyzes in solving exercises and problems, supporting arguments, etc.	Periodic assessment (through oral/written assessment tests).	<b>20%</b>
	Using their procurement discipline in addressing intra-, inter-, multi-and / or transdisciplinary issues / problem situations		
<b>Other activities</b>	Presentation of a paper on a topic selected from the field of the discipline.	PowerPoint and oral presentation	<b>50%</b>

**Course coordinator:** Assoc. Prof. PhD Ionela HOTEA

**Practical activities coordinator L/S/P:** Asist. Prof. PhD St. Ana-Maria PLOTUNA