

Study Programme: Animal Production
Course Unit Title: Basis of Animal Nutrition
Course Unit Code: 19.ANM018
Name of Lecturer(s): Dragan Glamočić, PhD, Full Professor; Igor M. Jajić, PhD, Full Professor
Type and Level of Studies: Undergraduate Academic Studies
Course Status (compulsory/elective): compulsory
Semester (winter/summer): summer
Language of instruction: Serbian
Mode of course unit delivery (face-to-face/distance learning): face-to-face
Number of ECTS Allocated: 6
Prerequisites: None
<p>Course Aims:</p> <p>Introducing students to the importance, functions and methods of utilization and symptoms of deficiency of nutrients in animal nutrition. Also, students will be familiar with methods of determining nutrients and calculating the nutritional value of animal feed and feeding mixtures.</p>
<p>Learning Outcomes:</p> <p>Students have gained basic knowledge in animal nutrition. They are trained with the methods of sampling for laboratory analysis, the basic chemical analysis of feed, digestibility determination and calculation of nutritional value of feed and feeding mixtures by different systems of assessment.</p>
<p>Syllabus:</p> <p><i>Theory</i></p> <p>Composition of plants and animals. Nutrients and their role in nutrition: Water - importance, functions, meeting the needs, water quality. Proteins - importance, composition, biological value, amino acids, non-protein nitrogen. Metabolism in non-ruminants and ruminants. Fat - importance in nutrition, and classification. Fat in animal feed. Metabolism, synthesis and deposition in organism. Essential fatty acids. Carbohydrates - importance in nutrition, and classification. Mono-, di-, and polysaccharides. Metabolism in non-ruminants and ruminants. Vitamins - importance and needs. Fat- and water-soluble vitamins. Their content and utilization from nutrients. Mineral elements - macro and micronutrients. Additives. Feeding experiments. Digestibility and balance in the diet. Metabolism of energy and systems of energy value assessment in feed and feeding mixtures.</p> <p><i>Practice</i></p> <p>Testing the quality of feed. Feed sampling. Mass measurement. Determination of basic parameters of animal feed: moisture, protein, fat, crude fiber and NFE (Weende method). Determination of crude fiber fractions - NDF, ADF, ADL (Van Soest method). Determination of Ca, P and trace elements. Energy value of nutrients. The Yugoslav net energy system, NRC energy systems. Digestibility and balance in the diet.</p>
<p>Required Reading:</p> <p>Glamočić, D., Jajić, I., Ivković, M.: Osnovi ishrane domaćih životinja, Poljoprivrednifakultet, Novi Sad, 2019.</p> <p>Obračević, Č.: Osnovi ishrane domaćih životinja. Naučn knjiga, Beograd, 1990.</p> <p>Jovanović, R., Glamočić, D., Dujić, D. Ishranadomaćih životinja, Poljoprivrednifakultet, Novi Sad, 2001.</p> <p>Glamočić, D.: Ishranapreživara – Praktikum. Poljoprivrednifakultet, Novi Sad, 2002.</p>

Weekly Contact Hours:	Lectures:3	Practical work:3	
Teaching Methods: Lectures, Practical classes, Consultations, study, research work			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Active class participation	5	written exam	20
Practical work	5	oral exam	30
Preliminary exam(s)	40	
Seminar(s)			
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			