

<b>Study program:</b> Organic crop and livestock production			
<b>Type and level of study:</b> Bachelor academic studies			
<b>Course Title:</b> NUTRITION OF RUMINANT			
<b>Teachers:</b> Dr. Mihailo Radivojević, Assistant professor			
<b>Status:</b> Elective 5, VII semester			
<b>ECTS:</b> 8			
<b>Prerequisite:</b> None			
<b>The goal of course</b> Introducing students with the basic nutrients, feed nutrition, and the needs in nutrients, nutrition basics and specifics of the most important domestic and wild animals belonging to non-ruminants as well as fish and learning about animal testing methods.			
<b>The outcome of the subject</b> If students are trained basic knowledge and the specifics of individual food animal species as well as to gain information on how the analysis of feed and preparing meals for quality organic livestock production.			
<b>Syllabus</b> <i>Theoretical study</i> – The science of nutrition; Nutrients and their metabolism - carbon- hydrates, fats, proteins, vitamins, minerals, water; Assessment of the nutritional value of food; Animal feed – production, processing and utilisation in organic livestock breeding; Animal feed - green forages and pasture, continius green chops, hay and other dry forages, silage and chemistry of ensiling, objects for ensiling, haylage, root and tuberous feeds, grain feeds - cereals, legumes and oilseeds; by-products of the milling industry and the oil industry; Animal feed - by-products of sugar factories, alcohol industry, brewery, starch; Animal feed - animal feeds, yeast and algae, mineral nutrients, preparing feed and feed mixtures, preserving animal feed; The animal requirements for maintance, reproduction, lactation, growth, fattening, work; Ruminant Nutrition – nutrition of cattle, sheeps, goats, deer and roe deer. <i>Practical classes</i> – Sampling, packaging and shipping of samples of animal feed for examination; Methods of animal feed testing. Determination of the nutritional value of animal feed - Weende procedure, Van Soest procedure and quick methods (NIR, NIRS); Review and hygiene evaluation of green feeds, dried forages, silage, root and tuberous feeds, grain feeds, farinaceous feeds and oil meal and cake; Review and evaluation of animal feeds, mineral nutrients, feeds of vegetable origin (voluminous and concentrated) and feed mixtures. Balancing of rations and computer analysis and correction of ration prescriptions for ruminant nutrition, in organic livestock breeding and animal husbandry; Contemporary informatics solutions balancing of rations.			
<b>Literature</b> 1. Subcommittee on Beef Cattle Nutrition; Committee on Animal Nutrition; Board on Agriculture; National Research Council (2000): Nutrient Requirements of Beef Cattle. 7th revised edition. 2. Subcommittee on Dairy Cattle Nutrition; Committee on Animal Nutrition; Board on Agriculture and Natural Resources; Division on Earth and Life Studies; National Research Council (2001): Nutrient Requirements of Dairy Cattle. 7th revised edition. 3. Mendenhall, K. (2009): The Organic Dairy Handbook. Northeast Organic Farming Association of New York, Inc. (NOFA-NY). <a href="https://www.nofany.org/files/TheOrganicDairyHandbook.pdf">https://www.nofany.org/files/TheOrganicDairyHandbook.pdf</a> 4. Producers Coffey, L., Baier, A. H. (2012): Guide for Organic Livestock Producers. National Center for Appropriate Technology (NCAT) Agriculture Specialists. 5. NCAT (2004): Organic Livestock Workbook. National Center for Appropriate Technology (NCAT). 6. Schmuller, J. (2013): Statistical Analysis with Excel For Dummies 3rd Edition. <a href="http://pdf.th7.cn/download/files/1312/statistical_analysis_with_excel_for_dummies_3rd_edition.pdf">http://pdf.th7.cn/download/files/1312/statistical_analysis_with_excel_for_dummies_3rd_edition.pdf</a> .			
<b>Number of lectures: 6</b>			Other Classes
Lectures: 3	Practices: 3	Other forms of teaching:	
Student research work:			
<b>Teaching methods:</b> The method of oral presentations and discussions, written work (seminars and colloquium). The method of practical work on animal farms in clinical and chemical analytical laboratories.			
Score (maximum 100 points)			
<b>Pre-commitments</b>	<b>Poens</b>	<b>The final exam</b>	Poens
Activity during lectures	10	Written exam	
Practical classes	10	Oral examination	30
Colloquia	40		
Seminars	10		
<i>Total</i>	70		30