

**Annotation of elective educational component  
«Production of fodder and feed additives»**

<b>Academic discipline</b>	<b>Production of fodder and feed additives</b>
<b>Tutor</b>	Bomko Vitalii Doctor of agricultural sciences Professor of the Department of technology of feed, feed additives and feeding of animals
<b>Courses and semesters, when the discipline is planning to study</b>	1 course (master degree), 2 semester
<b>Faculties whose students are invited to study discipline</b>	Biological-technological faculty
<b>List of competencies and learning-related outcomes that discipline provides</b>	<p>According to the requirements of the educational-professional program "Technology of production and processing of livestock products" applicants should acquire the ability to obtain the following competencies:</p> <p>GC 1 (general competence). Ability to abstract thinking, analysis and synthesis.</p> <p>PC 1 (professional competence). Ability to analyze and control the safety and quality of feed and feed products and animal nutrition.</p> <p>PC 6. The ability to practically manage working or educational processes in the field of production and processing of products of animal origin, which are complex, unpredictable and require new strategic approaches.</p> <p>PC 8. The ability to develop and implement scientific and applied projects in the field of technologies for the production and processing of livestock products and related interdisciplinary areas, taking into account technical, economic, social, legal and environmental aspects.</p> <p>PC 10. The ability to clearly and unambiguously convey one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to students.</p> <p>The result of studying the discipline is the acquisition by students of the following knowledge and skills:</p> <ul style="list-style-type: none"> <li>- to evaluate and ensure the quality and safety of technologies for the production of animal husbandry products, fodder and fodder, animal nutrition levels and products of animal origin (to evaluate the nutritional value of fodder; to evaluate the safety of fodder);</li> <li>- to develop, implement and modernize effective</li> </ul>

	<p>technologies and processes in the field of production and processing of livestock products (to develop recipes of compound feed for animals of various species; to develop recipes of premixes, PVA and PVMA for various types of animals and poultry);</p> <p>- to search for the necessary data in the scientific literature, databases and other sources, analyze and evaluate these data (to find the current norms of animal feeding of various species; to analyze the results of studies on nutrition and the composition of feed products).</p>
<p><b>Description of the discipline</b></p>	
<p><b>Prerequisites needed for studying the discipline</b></p>	<p>The selective educational discipline "Production of fodder and feed additives" is based on the knowledge of such disciplines as "Mechanization in animal husbandry", "Animal feeding", "Production, storage and quality control of fodder and feed additives", "Physiology of farm animals", "Microbiology of farm animals", "Higher mathematics", "Hygiene and welfare of animals", "Information systems and technologies", "Technology of fodder and animal nutrition".</p>
<p><b>Students' limit in a group</b></p>	<p>25 students</p>
<p><b>Topics of in-class activity</b></p>	<p><b>Lectures</b></p> <ol style="list-style-type: none"> <li>1. The state and prospects for the development of the production of feed, compound feed, feed additives and premixes in Ukraine</li> <li>2. Production and use of roughage as a part of full-rational feed mixtures for ruminants.</li> <li>3. Production and use of juicy fodder as part of full-rational fodder mixtures for ruminants.</li> <li>4. Production and use of concentrated fodder as part of complete ration fodder mixtures for ruminants and complete ration compound feeds for monogastric animals.</li> <li>5. Production and use of feed additives in the composition of complete feed mixes for ruminants and complete feed for monogastric animals.</li> <li>6. Technology of preparation, dosing, mixing, introduction of feed additives and liquid components into the composition of complete ration feed mixtures and complete ration compound feeds.</li> <li>7. General technological process of compound feed production and general technology of granulation of loose compound feed.</li> </ol>

	<p>8. Production technology of PVMA and premixes and evaluation of the quality of raw materials and finished products.</p> <p><b>Practical classes</b></p> <ol style="list-style-type: none"> <li>1. Analysis of the nutritional value of components and development of recipes for fodder mixtures, compound feeds.</li> <li>2. Preparation of grain components for the production of feed concentrates and complete feed.</li> <li>3. Peculiarities of the use of grain cereal and leguminous crops, feed of animal origin as part of compound feed.</li> <li>4. Inclusion of feed additives, BVMD and premixes in compound feed.</li> <li>5. Inclusion of chemical and microbiological synthesis of fodder in feed mixtures and combined feeds.</li> <li>6. Calculations of the introduction of molasses, urea and fat into feed mixtures and compound feed.</li> <li>7. Development of PVMA recipes and premixes for their inclusion in compound feed.</li> <li>8. Introduction of mineral additives, liquid acidifiers, probiotics and prebiotics and individual amino acid additives into compound feed.</li> </ol>
<b>Language of teaching</b>	Ukrainian, English