



## SYLLABUS OF THE DISCIPLINE

### "Animal feeding and feed technology"

Degree of higher education - **Bachelor**

Speciality 204 – "**Technology of production and processing of livestock products.**"

Educational program "**Technology of production and processing of livestock products.**"

Study years **1,2** semester **2,3**

The form of study is **full-time.**

The number of ECTS credits is **11**

The language of instruction is **Ukrainian**

Lecturer of the course  
Contact information of the lecturer (e-mail)  
Course page in eLearn

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<https://elearn.nubip.edu.ua/course/view.php?id=2562>

<https://elearn.nubip.edu.ua/course/view.php?id=1020>

## DESCRIPTION OF THE DISCIPLINE

(up to 1000 printed characters)

The discipline aims to form the student's system of knowledge and skills in the organisation of a scientifically based system of feeding agricultural animals, storage and rational use of feed by the qualification characteristics.

The task of the discipline is to provide the future specialist with the necessary set of knowledge: the biology of nutrition of individual species and sex-age groups of animals and the role of individual nutrients in the body's vital functions and ensuring maximum productivity, from the importance of the fodder base for animal husbandry, characteristics of the fodder value of certain groups of fodder and feed additives and their role in feeding animals, methods of harvesting, storage, preparation of fodder for feeding and their rational use; on the organisation of full feeding of animals based on detailed norms under different conditions of keeping. To educate students in a creative approach to solving the issues of organising full feeding of animals in certain production conditions, to develop and apply rational technologies for harvesting fodder and preparing them for feeding.

### **Competencies of OP:**

**Integral competencies (IC): The ability to solve complex,** specialized tasks and practical problems in the technology of production and processing of animal husbandry products or in the learning process, which involves the application of theories and methods of zootechnical science and is characterised by the complexity and uncertainty of conditions.

General competencies (CG):

ZK 3. Ability to apply knowledge in practical situations.

ZK 7. Ability to evaluate and ensure the quality of performed works

### **professional (unique) competencies (FC):**

SC 1. Ability to use professional knowledge in the field of production and processing of livestock products

SK 3. Knowledge of the fundamental technologies of procurement, production and storage of fodder.

SK 4. The ability to prepare rations for different species and sex-age groups of animals and to organise their standardised feeding, taking into account the annual need of the enterprise for feed.

### **Program learning outcomes (PRP) OP:**

PRN1. Implement parameters and control technological processes for producing and processing animal husbandry products.

PRN5. Control the quality of the work performed.

PRN9. Choose the procurement, production, and storage technologies of fodder.

PRN10. Use standardised animal feed.

PRN20. Apply international and national standards and practices in professional activities.

PRN21. Demonstrate knowledge of the main historical stages of development of the subject area.

### STRUCTURE OF THE DISCIPLINE

Topic	Hours (lectures/ laboratory, practical, seminar)	Learning outcomes	Task	Assessment
<b>1-st semester</b>				
<b>Module 1. Scientific basis of complete feeding of animals</b>				
Topic 1. Scientific basis of complete feeding of animals	14/21	The student should <u>know</u> the peculiarities of digestion and metabolism in animals of different species and age groups; the role of nutrients, minerals and biologically active substances in the body, their influence on the physiological state and productivity; <u>Understand</u> the peculiarities of digestion in different species of animals. <u>Distinguish</u> between different units of measurement of energy nutrition in feed	Submission of laboratory works. Performing independent work (including in elearn)	<b>17</b>
<b>Module 2. Feed technology and quality assessments</b>				
Topic 2. Feed technology and assessment of their quality	14/21	The student must <u>To know</u> the leading technologies of procurement, production and storage of fodder for the formation of the fodder base of the enterprise. <u>To be able</u> to classify fodder, carry out their organoleptic assessment, and establish the appropriate class of fodder <u>To distinguish</u> fodder by origin and animal life. To analyse the chemical composition of fodder	Submission of laboratory works. Performing independent work (including in elearn)	<b>17</b>

<b>Module 3. Standardised feeding of ruminants and horses</b>				
Topic 3. Standard feeding of ruminants	13/25	The student must <u>Know</u> the biological characteristics of cattle, goats and sheep. <u>To</u> determine the norm and make a daily ration for cattle, goats and sheep. <u>Analyse</u> farm rations for compliance with existing standards. <u>Understand</u> the principles of feed preparation for feeding <u>Distinguish</u> the energy and nutrient needs of different sexes and ages груп тварин	Submission of laboratory works. Performing independent work (including in elearn)	<b>19</b>
Topic 4. Standard feeding of horses	4/8	The student must <u>To know</u> the biological features of horses. To determine the norm and make up a daily ration for horses. <u>To analyse</u> farm rations for compliance with existing norms. <u>Understand</u> the principles and features of feed preparation for feeding <u>Distinguish</u> the energy and nutrient requirements for different sex and age groups of animals	Submission of laboratory works. Performing independent work (including in elearn)	<b>17</b>
<b>Total academic work for 1 semester</b>				<b>70</b>
<b>Test</b>				<b>30</b>
<b>Just for 1 semester</b>				<b>100</b>
<b>2-nd semester</b>				
<b>Module 4. Standardised feeding of pigs</b>				
Topic 5. Standardised feeding of pigs	10/15	The student must <u>know</u> the biological characteristics of pigs <u>To</u> determine the norm and make a daily ration for pigs of various industrial groups. <u>To analyse</u> farm rations for compliance with existing norms. <u>Understand</u> the principles of using compound feed in pig	Submission of laboratory works. Performing independent work (including in elearn)	<b>23</b>

		farming. <u>Distinguish</u> the energy and nutrient needs of different sex and age groups of pigs.		
<b>Module 5. Standardised poultry feeding</b>				
Topic 6. Standardised feeding of agricultural poultry	10/15	The student must <u>To know</u> the biological features of poultry. <u>To be able to determine</u> the norm and make daily rations and recipes of combined feed for poultry <u>Analyse</u> farm rations for compliance with existing standards. <u>Understand</u> the principles of feed preparation for feeding and the features of using complete ration combined feed.	Submission of laboratory works. Performing independent work (including in elearn)	<b>24</b>
<b>Module 6. Standardised feeding of rabbits, fur animals and domestic animals</b>				
Topic 7. Standardised feeding of rural and urban areas. rabbits, fur animals and pets	10/15	The student must <u>Know</u> the biological features of rabbits, fur animals and domestic animals <u>Be able to determine</u> the norm and make daily rations and recipes of compound feed for rabbits, fur animals and pets <u>Analyse</u> rations for compliance with existing standards. <u>Understand</u> the principles of preparing feed for feeding <u>Distinguish</u> the energy and nutrient requirements of different types of rabbits, fur animals and domestic animals, taking into account the direction of their productivity and the period of use	Submission of laboratory works. Performing independent work (including in elearn)	<b>23</b>
<b>Total academic work for the 2nd semester</b>				<b>70</b>
<b>Study work for two semesters (study work for 1,2/2)</b>				<b>70</b>
<b>Exam</b>				<b>30</b>
<b>Total for the course</b>				<b>100</b>

### **ASSESSMENT POLICY**

<b><i>Deadlines and Rescheduling Policy:</i></b>	Works submitted late without good reason will be assigned a lower grade. Modules can be rearranged with the lecturer's permission if there are good reasons (for example, sick leave).
<b><i>Academic Integrity Policy:</i></b>	Copying during tests and exams is prohibited (including using mobile devices). Abstracts and presentation materials must have correct text references to the used literature.
<b><i>Attendance Policy:</i></b>	Attending classes is mandatory. For objective reasons (for example, illness, international internship), training can take place individually (in online form with the agreement of the dean of the faculty).

### **STUDENT ASSESSMENT SCALE**

<b>Rating of a higher education applicant points</b>	<b>The assessment is national for the results of passing exams</b>	
	<b>exams</b>	<b>credits</b>
90-100	perfectly	counted
74-89	fine	
60-73	satisfactorily	
0-59	unsatisfactorily	not counted

### **Recommended sources of information**

#### **The main one**

1. Workshop on feeding farm animals: a study guide/[Ibatullin I.I., Melnyk Y.F., Otchenashko V.V., etc.]; edited. Academician of the National Academy of Sciences of Ukraine I.I. Ibatullina. - K.: 2015. - 422 p.
2. Feeding of agricultural animals: Textbook / I.I. Ibatullin, D.O. Melnychuk, G.O. Bohdanov and others; Under the editorship I.I. Ibatullina. - Kyiv, 2006. -179 p.: illustrations.
3. Handbook on complete feeding of farm animals; According to scientific ed. I.I. Ibatullina, O.M. Zhukorsky Kyiv: Agrarian science. 2016, 336 p.
4. Norms, approximate rations and practical advice on cattle feeding [guide]; edited by I.I. Ibatullina, V.I. Kostenko / [H.O. Bohdanov, I.I. Ibatullin, V.I. Kostenko and others]. Zhytomyr: PP "Ruta", 2013. 516 p.
5. Feeding of agricultural animals: a textbook / I.I. Ibatulin, D.O. Melnychuk, G.O. Bogdanov [and others]; under the editorship I.I. Ibatullina. Vinnytsia: New Book, 2007. 612.

#### **Auxiliary**

1. Workshop on feeding agricultural animals / I.I. Ibatullin, V.D. Stolyuk, V.K. Kononenko and others. - K.: Agrarian education, 2009. - 328 p.
2. Production technology of livestock products / O.T. Busenko, V.D. Stolyuk, O.Y. Mohylyny and others Under the editorship of O.T. Busenko. K.: Higher education, 2005. 496 p.
3. Production technology of pig farming products / According to the general edition of Khomenko M.P. / Textbook 6th edition". Vinnytsia: Nova kniga, 2010. 336 p.

4. Growing repair young farm animals / I.I. Ibatulin et al. - K.: Urozhai, 1993. - 247 p.
5. S.Z. Gzytskyi. Digestion and metabolism in ruminants// Forages and feeding - 1973. - Issue 31. - P. 54 - 62. 14.
6. Detailed rules for feeding agricultural animals: Handbook / M.T. Nozdrin, M.M. Karpus, V.F. Karavashenko et al., K.: Urozhai, 1991.-344 p.
7. Dyachenko L.S., Solovyova Z.K., Storozhenko V.V., Kulyk V.V. Feeding sheep. - K.: Urozhai, 1983.-114 p. 18.
8. Intensive methods of using the dairy herd/ V.I. Kostenko, A.Ya. Mankovskyi, G.V. Tansurov et al. - K.: Urozhai, 1990.-188 p.
9. Mineral nutrition of animals / G.T. Klitsenko, M.F. Kulyk, M.V. Kosenko and others. - K.: Svit, 2001. - 575 p.
10. Nozdrin M.G., Karpus M.M., Karavashenko V.F. etc. Detailed norms of feeding agricultural animals / Handbook. - K.: Urozhai, 1991. - 344 p.
11. Provatorov G.V., Provatorava V.O. Feeding of farm animals. - Sumy: University book, 2004. - 509 p.
12. Stolyarchuk P.Z., Boyarskyi L.G. Fodder procurement and standardised feeding of farm animals: Handbook. - Lviv: Kamenyar, 1989.-173p.
13. Theory and practice of rationed cattle feeding. / Under the editorship V.M. Kandyby, I.I. Ibatullina, V.I. Kostenko - Zhytomyr: PP "Ruta", 2012. - 860 p.
14. Ensminger M.E., Oldfield J.E., Heinemann U.U. Food and nutrition. Summary / Sub. Ed. HA. Bohdanova - California: Ensmingera Publishing Company, 1997. - 974 p.

#### **Information resources**

1. Animal husbandry today <https://ait-magazine.com.ua/>
2. Union of Poultry Farmers of Ukraine <https://www.poultryukraine.com/>
3. Tekro company <https://www.tekro.ua/>
4. Big Dutchman company <https://www.bigdutchman.ua/uk/portal-ua/>
5. Bou Matic Company <https://boumatic.com/eu>
6. DeLaval Company <http://www.delaval.com/default.htm>
7. <http://www.afimilk.com/>
8. PromAgro group of companies <http://www.kombinat.com.ua/?section=po>
9. "Kremix" LLC <http://kremix.com.ua/>
10. Group of companies AVA Group <https://av>