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Дата подписания: 22.05.2024 16:42:41 PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA **RUDN University** 

**Agrarian and Technological Institute** 

educational division (faculty/institute/academy) as higher education programme developer

#### **COURSE SYLLABUS**

Feeding Animals with the Basics of Forage Production

course title

Recommended by the Didactic Council for the Education Field of:

36.05.01 Veterinary

field of studies / speciality code and title

The course instruction is implemented within the professional education programme of higher education:

Veterinary

higher education programme profile/specialisation title

#### 1. GOALS AND OBJECTIVES OF THE COURSE

The aim of mastering the course "Feeding animals with the basics of forage production" is to study the basics of animal nutrition, the organization of feeding different types of animals to obtain genetically determined productivity with high quality, preservation of health and reproduction.

# 2. REQUIREMENTS FOR LEARNING OUTCOMES

The implementation of the course "Feeding animals with the basics of forage production" is aimed at creating the following competencies (parts of competencies) for students:

Table 2.1. List of competencies formed by students during the development of the course (results of the development of the discipline)

Competence	Competence descriptor Indicators of competence		
code	accomplishment (within the discipling		
GPC-2	Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological state of the animal organism	GPC-2.1 Have knowledge of the influence of natural, socio-economic, genetic and economic factors on the animal body.  GPC-2.2 Can establish the presence and validity of cause-effect relationships between the impact of certain etiological factors on the animal body and the development of diseases  GPC-2.3 Knows the methods of preventive and therapeutic correction of the impact of unfavorable environmental factors that can cause deterioration of animal health	
PC-10	Ability to analyze and adjust animal feeding to improve the effectiveness of the therapeutic process, prescribe therapeutic diets.	PC-10.1 Able to analyze a patient's diet to identify factors predisposing to the development of disease.  PC-10.2 Able to justify the prescription of special food to an animal for therapeutic purposes for various diseases  PC-10.3 Can recommend approximate composition of therapeutic diets, desirable ratio of nutrients, availability of special additives and components that enhance the therapeutic effect of the diet  PC-10.4 Able to use special programs and databases to select industrial therapeutic diets and dietary supplements, as well as to compose	

	individual therapeutic diets for animals
	of different species.

# 3. COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE

The course "Feeding animals with the basics of forage production" refers to the mandatory part of block B1 of the Educational Program of Higher Education.

As part of the Educational Program of Higher Education, students also master other disciplines and /or practices that contribute to achieving the planned results of mastering the course "Feeding animals with the basics of forage production".

Table 3.1. List of Higher Education Program components disciplines that contribute to expected learning outcomes

Competence code	Competence descriptor	Previous courses/modules, internships*	Subsequent courses/modules, internships*
GPC-2	Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological state of the animal organism	Biology with the basics of ecology Veterinary genetics Breeding with the basics of private animal husbandry Animal health and welfare	General and Veterinary Ecology Base component Study practice Clinical internship Industrial practice Academic research practice with the preparation of a scientific qualification project Preparation for and passing the state exam
PC-10	Ability to analyze and adjust animal feeding to improve the effectiveness of the therapeutic process, prescribe therapeutic diets.		Medicinal and poisonous plants Fodder plants Horse diseases Diseases of productive animals Diseases of small pets Diseases of bees and entomophages Fish pathology and aquaculture Diseases of exotic animals Clinical internship

	Industria	Industrial practice		
	Academ	c res	earch	
	practice	with	the	
	preparati	on of	a	
	scientific	qualific	ation	
	project			
	Preparat	on for	and	
	passing t	he state ex	am	

# 4. COURSE WORKLOAD AND TRAINING ACTIVITIES

Course workload of the course "Feeding animals with the basics of forage production" is 7 credits.

Table 4.1. Types of academic activities during the period of the HE program mastering for **full-time** study

Types of academic activities		HOURS	Semesters			
			4	5	-	-
Contact academic hours		68	34	34	-	-
including						
Lectures		34	17	17	-	-
Lab work		34	17	17	•	-
Seminars (workshops/tutorials)		-	-	-	-	-
Self-study		144	28	116	-	-
Evaluation and assessment (ex-	am/pass/fail	40	10	30	•	-
grading)						
	Academic	252	72	180	-	-
Course workload hour Credit						
		7	2	5	-	-
	unit					

# **5. COURSE CONTENTS**

Table 5.1 Content of the course (module) by type of academic work

Modules	Content of the modules (topics)	Types of academic activities
Module 1. Assessment of feed nutrition.	Topic 1.1 Chemical composition of feed as a primary indicator of their nutritional value. The content and concentration of nutrients in feed.	Lectures, Lab work.
	Topic 1.2 Determination of digestibility of feeds and diets. The use of nutrients in the animal's body.	Lectures, Lab work.

	Topic 1.3 Energy nutrition of feed. CE and feed units. Energy nutritional value of feed. Exchange energy.	Lectures, Lab work.
	Topic 1.4 Protein nutrition of feed.	Lectures, Lab work.
	Topic 1.5 Mineral and vitamin nutrition of feed.	Lectures, Lab work.
Module 2. Feed.	Topic 2.1 Production evaluation of feed.	Lectures, Lab work.
	Topic 2.2 Analysis of feeds of various origins.	Lectures, Lab work.
	Topic 2.3 Types of feed and their purpose.	Lectures, Lab work.
Module 3. Normalized feeding of animals of	Topic 3.1 Norms of animal feeding.	Lectures, Lab work.
different species.	Topic 3.2 The technique of making rations.	Lectures, Lab work.
	Topic 3.3 Analysis of diets.	Lectures, Lab work.
	Topic 3.4 Feeding cattle.	Lectures, Lab work.
	Topic 3.5 Feeding sheep.	Lectures, Lab work.
	Topic 3.6 Feeding goats.	Lectures, Lab work.
	Topic 3.7 Feeding horses.	Lectures, Lab work.
	Topic 3.8 Feeding pigs.	Lectures, Lab work.
	Topic 3.9 Feeding birds.	Lectures, Lab work.
	Topic 3.10 Feeding dogs and cats.	Lectures, Lab work.

# 6. COURSE EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

Table 6.1. Material and technical support of the discipline

Classroom for		Specialized educational/laboratory
Academic Activity Type	Equipping the classroom	equipment, software and materials for the development of the course (if necessary)

Lecture	An auditorium for conducting lecture-type classes, equipped with a set of specialized furniture; a board (screen) and technical means of multimedia presentations.	-
Laboratory	An auditorium for laboratory work, individual consultations, routine monitoring and interim certification, equipped with a set of specialized furniture and equipment.	-
Self-studies	An auditorium for independent work of students (can be used for seminars and consultations), equipped with a set of specialized furniture and computers with access to an electronic information and educational environment.	-

#### 7. RESOURCES RECOMMENDED FOR COURSE STUDIES

#### Main readings:

- 1. Khaziakhmetov F.S. Rational feeding of animals [Electronic resource]: Textbook / F.S. Khaziakhmetov. St. Petersburg: Publishing House "Lan", 2017. 364 p. http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\_FindDoc&id=464959&idb=0
- 2. Khokhrin S.N. Feeding cattle, sheep, goats and horses: textbook / S.N. Khokhrin. 2nd ed., supplement and revision; Electronic text data. St. Petersburg: Quadro, 2019. 488 p. <a href="http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\_FindDoc&id=487733&idb=0">http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\_FindDoc&id=487733&idb=0</a>
- 3. Priestach Nikolay Vladimirovich. Feeding of farm animals with the basics of feed production / N.V. Priestach, L.N. Priestach. Electronic text data. St. Petersburg: Quadro, 2020. 372 p. http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\_FindDoc&id=487735&idb=0

#### Additional Readings:

- 1. Faritov T.A. Feed and feed additives for animals [Electronic resource]: Textbook / T.A. Faritov. St. Petersburg: Publishing house "Lan", 2010. 304 p.http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\_FindDoc&id=465289&idb=0
- 2. Khokhrin S.N. Feeding dogs [Electronic resource]: Textbook / S.N. Khokhrin, K.A. Rozhkov, I.V. Lunegova. St. Petersburg: Publishing house "Lan", 2015. 288 p. http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\_FindDoc&id=465112&idb=0
- 3. Tokarev V. S., Animal feeding with the basics of feed production. Textbook. M.: Infra-M, 2016. 592 p. Alexandrov S., Kosova T. Rabbits. Breeding growing feeding. St. Petersburg: AST, 2011. 157 p.

- 4. Rakhmanov A. I., Maslova Yu. V. Feeding domestic chickens. St. Petersburg: Aquarium-Print, 2016. 48 p.
- 5. Feeding horses. /Kalashnikov V. V., Draganov I.F., Memedeikin V. G. Ed. Svitova V. I. M.: GEOTAR-Media, 2011. 224 p.

#### *Internet sources*

- 1. Electronic libraries (EL) of RUDN University and other institutions, to which university students have access on the basis of concluded agreements:
- RUDN Electronic Library System (RUDN ELS) <a href="http://lib.rudn.ru/MegaPro/Web">http://lib.rudn.ru/MegaPro/Web</a>
  - EL "University Library Online" <a href="http://www.biblioclub.ru">http://www.biblioclub.ru</a>
  - EL "Yurayt" <a href="http://www.biblio-online.ru">http://www.biblio-online.ru</a>
  - EL "Student Consultant" www.studentlibrary.ru
  - EL "Lan" http://e.lanbook.com/
  - EL "Trinity Bridge"
  - 2. Databases and search engines:
- electronic foundation of legal and normative-technical documentation http://docs.cntd.ru/
  - Yandex search engine <a href="https://www.yandex.ru/">https://www.yandex.ru/</a>
  - Google search engine <a href="https://www.google.ru/">https://www.google.ru/</a>
  - Scopus abstract database <a href="http://www.elsevierscience.ru/products/scopus/">http://www.elsevierscience.ru/products/scopus/</a>

Educational and methodological materials for independent work of students during the development of the discipline/ module\*:

- 1. A course of lectures on the course "Feeding animals with the basics of forage production".
- 2. Laboratory workshop on the course "Feeding animals with the basics of forage production".
- \* The training toolkit and guidelines for the internship are placed on the internship page in the university telecommunication training and information system under the set procedure.

# 8. ASSESSMENT TOOLKIT AND GRADING SYSTEM\* FOR EVALUATION OF STUDENTS' COMPETENCES LEVEL AS COURSE RESULTS

The assessment toolkit and the grading system\* to evaluate the level of competences (competences in part) formation as the course results are specified in the Appendix to the course syllabus.

\* The assessment toolkit and the grading system are formed on the basis of the requirements of the relevant local normative act of RUDN University (regulations / order).

# **DEVELOPER:**

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Position, Basic curriculum	Signature	Full name.

#### **HEAD OF EDUCATIONAL DEPARTMENT:**

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HEAD OF			
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