**Model of a graduate of the specialty "Veterinary"**

**Target graduate image**

The graduate is a highly qualified specialist with fundamental knowledge and practical skills in veterinary medicine, competent in diagnostics, prevention and treatment of diseases of farm and domestic animals. He/she is prepared for professional activity in the conditions of modern agro-industrial complex taking into account digitalization, environmental standards and requirements of sustainable development.

**1. Graduate competencies**

**1.1 Professional skills**

1. **Diagnosis and treatment of animal diseases:**
   * Use of modern diagnostic techniques, including ultrasound, radiography, endoscopy and laboratory tests;
   * Development and implementation of therapeutic and surgical interventions;
   * Vaccination and prevention of infectious diseases.
2. **Maintenance and feeding management:**
   * formulation of feeding rations for different animal species;
   * control of fodder quality and agrochemical analyses;
   * introduction of resource-saving feeding technologies.
3. **Organization of breeding work:**
   * conducting breeding activities to improve the genetic stock of animals;
   * The use of computer programs to analyze genetic data.
4. **Quality control of livestock products:**
   * conducting veterinary and sanitary examination of meat, milk and other products;
   * evaluation of conditions for processing of livestock products.
5. **Application of digital technologies:**
   * use of automated management systems for livestock enterprises;
   * analyzing data using drones, sensors and software.
6. **Conducting scientific research:**
   * formulation of scientific problems and hypotheses;
   * organization of experiments, analysis and systematization of the obtained data;
   * preparation of scientific publications and recommendations.

**1.2 Graduate knowledge**

1. Anatomy, physiology and pathology of animals.
2. Principles of animal hygiene and sanitation.
3. Fundamentals of microbiology, biochemistry and pharmacology.
4. Laws of heredity, basics of genetics and biotechnology.
5. Legal and regulatory framework, including occupational health and safety and environmental safety laws.
6. Methods for assessing and predicting digitalization in agribusiness.

**1.3 General cultural competences**

1. **Ethical Principles:**
   * respect for the life and well-being of animals;
   * adherence to professional ethics and environmental standards.
2. **Communication Skills:**
   * the ability to express thoughts clearly and competently in oral and written form;
   * Ability to interact effectively with colleagues, clients and government representatives.
3. **Self-development and critical thinking:**
   * Continuous pursuit of professional development;
   * Ability to objectively assess their performance and take action to improve.

**1.4 General professional competencies**

1. **Knowledge of the regulatory framework:**
   * understand the legislation governing veterinary activities, including international standards;
   * knowledge of the basics of labor protection, industrial sanitation and ecology.
2. **Working with information:**
   * Analyze data from scientific and industrial sources;
   * Use information systems for planning and monitoring.

**1.5 Specialized competencies**

1. **Economic literacy:**
   * assessment of technical and economic indicators of the enterprise's activity;
   * Developing business plans and analyzing competitiveness.
2. **International Aspects:**
   * proficiency in several languages (state, Russian, English and an additional European or Asian language);
   * Knowledge of international standards and norms of veterinary medicine.
3. **Environmental Safety:**
   * development and implementation of environmentally safe technologies for animal housing;
   * participation in biodiversity conservation activities.

**1.6 Social and personal competencies**

1. **Teamwork:**
   * Ability to cooperate with colleagues, animal owners, and government officials.
2. **Management Skills:**
   * planning and coordination of veterinary activities;
   * management of time and material resources.
3. **Flexibility and stress tolerance:**
   * the ability to make decisions in complex and extreme situations;
   * Willingness to work under resource or time constraints.

**2. Application of professional skills**

**2.1 In the context of agricultural enterprises:**

* Plan and supervise animal care activities.
* Organization of veterinary care on farms.
* Analysis of technical and economic indicators of farms.

**2.2 In vitro:**

* Conducting product quality studies.
* Development and testing of innovative raw material processing technologies.

**2.3 In research and development activities:**

* Participation in conferences and seminars.
* Preparation of scientific articles and practical recommendations.

**2.4 In educational activities:**

* Conducting lectures and practical classes in veterinary disciplines.
* Mentoring for students and young professionals.

**3. Criteria for success of the model**

1. High level of employment of graduates in the specialty.
2. Positive assessment by employers of the level of specialists' training.
3. Graduate's ability for career growth and professional development.

**Outcome competency**

A graduate should possess a set of knowledge, skills and personal qualities that enable him/her to:

* Solve both standard and non-standard problems.
* Innovate and adapt to market changes.
* Represent the profession with dignity locally and internationally.