

## Model of a graduate of the specialty 6B09101 – "Veterinary Medicine"



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

# 1. Graduate competencies

- **1.1 Professional skills**

- 1. Diagnosis and treatment of animal diseases: Use of modern diagnostic methods, including ultrasound, radiography, endoscopy and laboratory tests; Development and implementation of therapeutic and surgical interventions; Vaccination and prevention of infectious diseases.
- 2. Management of care and feeding: Development of feeding standards for various types of animals; Quality control of feed and agrochemical analysis; Introduction of resource-saving feeding technologies.
- 3. Organization of breeding work: Conducting selection activities to improve the genetic stock of animals; Use of computer programs for analyzing genetic data.
- 4. Quality control of livestock products: Conducting veterinary and sanitary examination of meat, milk and other products; Assessment of the conditions of processing livestock products.
- 5. Application of digital technologies: Use of automated systems for managing livestock enterprises; Data analysis using drones, sensors and software.
- 6. Conducting scientific research: Formulating scientific tasks and hypotheses; Organizing experiments, analyzing and systematizing the data obtained; Preparing scientific publications and proposals.

## 1.2 Graduate education



- Anatomy, physiology and pathology of animals.
- Principles of zoohygiene and sanitation.
- Fundamentals of microbiology, biochemistry and pharmacology.
- Laws of heredity, fundamentals of genetics and biotechnology.
- Regulatory and legal framework, including laws on labor protection and environmental safety.
- Methods for assessing and forecasting digitalization in the agro-industrial complex.

## 1.3 General cultural competencies



- **1. Ethical principles:**
  - Respect for the life and welfare of animals;
  - Adherence to professional ethics and environmental standards.
- **2. Communication skills:**
  - Ability to communicate clearly and competently, both orally and in writing;
  - Ability to communicate effectively with colleagues, clients, and government officials.
- **3. Self-development and critical thinking:**
  - Continuous pursuit of professional development; Ability to objectively evaluate one's own performance and take action to improve it.

## 1.4 General professional competencies



- **1. Knowledge of the regulatory framework:**
  - Understanding the legislation governing veterinary services, including international standards;
  - Mastering the basics of labor protection, industrial sanitation and ecology.
- **2. Working with information:**
  - Analyzing data from scientific and industrial sources;
  - Using information systems for planning and monitoring



## 1.5 Мамандандырылған құзыреттер



- **1. Economic literacy:**
  - Evaluation of technical and economic indicators of the enterprise's activities;
  - Development of business plans and analysis of competitiveness.
- **2. International aspects:**
  - Knowledge of several languages (state, Russian, English and additional European or Asian);
  - Knowledge of international veterinary standards and norms.
- **3. Environmental safety:**
  - Development and implementation of environmentally safe technologies for animal husbandry;
  - Participation in activities to preserve biological diversity.

## 1.6 Social and personal competencies



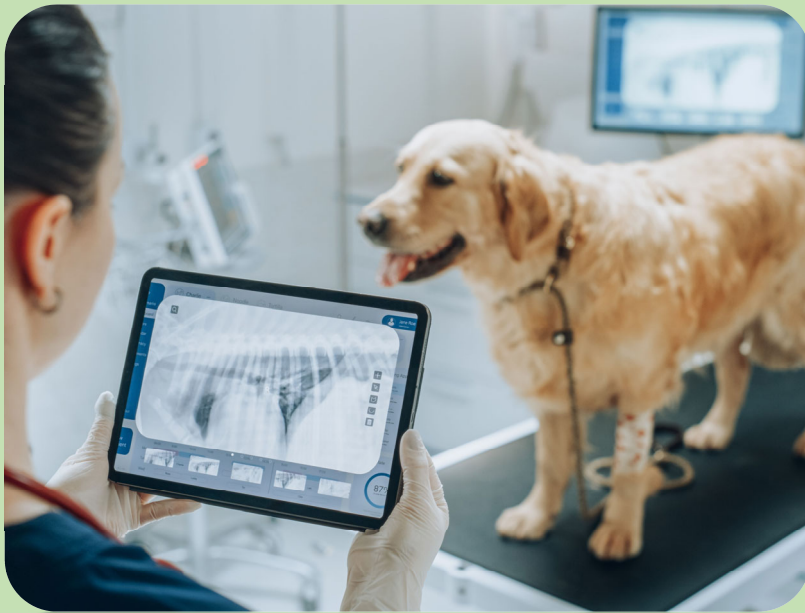
- **1. Teamwork:**
  - Ability to cooperate with colleagues, livestock owners, and government officials.
- **2. Management skills:**
  - Planning and coordinating veterinary activities;
  - Managing time and material resources.
- **3. Flexibility and stress tolerance:**
  - Ability to make decisions in difficult and emergency situations;
  - Readiness to work in conditions of resource or time constraints.

## 2. Use of professional skills

- **2.1 In the context of agricultural enterprises:**
  - Planning and monitoring of animal care activities;
  - Organization of veterinary care on farms;
  - Analysis of technical and economic indicators of farms.
- **2.2 In the laboratory setting:**
  - Conducting research on product quality;
  - Development and testing of innovative raw material processing technologies.
- **2.3 In scientific research activities:**
  - Participation in conferences and seminars;
  - Preparation of scientific articles and practical recommendations.
- **2.4 In educational activities:**
  - Conducting lectures and practical classes on veterinary subjects;
  - Mentoring students and young specialists.



### 3. Model success criteria



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