

**Description of the outcomes of learning for a field of study**

**Field of study:** veterinary medicine

**Description of the outcomes of learning for a field of study**

**Name of the field of study:** veterinary medicine

**Level:** long-cycle Master's degree studies

**Profile:** general academic

**An academic discipline or disciplines to which the outcomes of learning apply:**

**leading scientific discipline (%):** veterinary medicine 100%

The description of the outcomes of learning takes into account the universal characteristics of first-cycle studies, level 7, specified in the Act of 22 December 2015 on the Integrated Qualifications System (Journal of Laws of 2016 item 64 and 1010, as amended.) and the characteristics of the outcomes of learning of second-cycle studies, level 7, specified in the regulations issued based on Art. 7 sec. 3 of the aforementioned Act.

Characteristics of the outcomes of learning for the qualifications at Polish Qualifications Framework, level 7

Symbols of learning outcomes for the field of study	Directional learning outcomes	The reference to the second level characteristics of the PQF learning outcomes
---	-------------------------------	--

**BASIC SCIENCES  
KNOWLEDGE  
the graduate:**

<b>WE_W01</b>	knows and describes the normal structures of an animal organism: cells, tissues, organs and systems	<b>P7S_WG</b>
<b>WE_W02</b>	knows the structure, describes and explains the functions of individual systems of the animal organism (respiratory, digestive, circulatory, excretory, nervous, movement, reproductive, endocrine, immune) and skin	<b>P7S_WG</b>
<b>WE_W03</b>	describes and interprets the development of organs and the whole organism in relation to the adult organism	<b>P7S_WG</b>
<b>WE_W04</b>	describes and explains metabolic processes at the molecular, cellular, organ and systemic levels	<b>P7S_WG</b>
<b>WE_W05</b>	describes and explains the phenomena of homeostasis, neurohormonal regulation, reproduction, aging and death	<b>P7S_WG</b>

<b>WE_W06</b>	describes, explains and interprets the principles and mechanisms underlying animal health, disease emergence and treatment - from the cell level, through the organ, animal, animal herd to the entire animal population	<b>P7S_WG</b>
<b>WE_W07</b>	knows and interprets pathophysiological changes in organs and systems and biological (including immunological) and pharmacological mechanisms enabling recovery	<b>P7S_WG</b>
<b>WE_W08</b>	identifies and describes the biology of infectious agents causing animal-transmitted diseases and anthroozoonoses, including the mechanisms of disease transmission and the body's defense mechanisms	<b>P7S_WG</b>
<b>WE_W09</b>	defines and describes the principles and processes of inheritance, recognises genetic disorders and knows the basics of genetic engineering	<b>P7S_WG</b>
<b>WE_W10</b>	defines and describes the mechanisms of action of specific groups of drugs, their disposition in the system and mutual interactions	<b>P7S_WG</b>
<b>WE_W11</b>	uses antibiotic therapy	<b>P7S_WG</b>
<b>WE_W12</b>	prescribes medications	<b>P7S_WG</b>
<b>WE_W13</b>	use Polish and Latin medical nomenclature	<b>P7S_WG</b>
<b>WE_W14</b>	uses a modern foreign language to a degree which enables him to communicate with specialists in the field of veterinary and related sciences and to use foreign language source materials	<b>P7S_WG</b>

#### **CLINICAL SCIENCES**

<b>WE_W15</b>	describes, explains and interprets disorders at the cell, tissue, organ, system and organism level in the course of disease	<b>P7S_WG</b>
<b>WE_W16</b>	describes, explains and interprets the mechanisms of organ and systemic pathologies	<b>P7S_WG</b>
<b>WE_W17</b>	describes and interprets the causes and symptoms, describes and interprets anatomopathological changes, applies the principles of treatment and prevention in individual disease entities	<b>P7S_WG</b>
<b>WE_W18</b>	implements the principles of diagnostic (including differential diagnosis) and therapeutic proceedings	<b>P7S_WG</b>
<b>WE_W19</b>	conducts a clinical examination of the patient and monitors the health condition of animals in large-scale farming	<b>P7S_WG</b>
<b>WE_W20</b>	follows the correct procedure for dealing with notifiable diseases	<b>P7S_WG</b>
<b>WE_W21</b>	collects, analyses and appropriately interprets clinical	<b>P7S_WG</b>

	data and the results of laboratory and additional tests	
<b>WE_W22</b>	indicates and interprets the relevant provisions of law, knows the principles of issuing rulings and prepares opinions for courts, state, local government and professional administration bodies	<b>P7S_WK</b>
<b>WE_W23</b>	knows the principles of functioning of the state veterinary service, also in terms of public health protection	<b>P7S_WK</b>

#### **LIVESTOCK PRODUCTION**

<b>WE_W24</b>	describes breeds within animal species and explains the principles of animal husbandry	<b>P7S_WG</b>
<b>WE_W25</b>	describes the principles of selecting animals for mating, methods of reproduction and selection of animals	<b>P7S_WG</b>
<b>WE_W26</b>	describes the principles of animal nutrition (including species differences), arranges and analyses food rations	<b>P7S_WG</b>
<b>WE_W27</b>	describes and evaluates conditions that ensure animal welfare	<b>P7S_WG</b>
<b>WE_W28</b>	describes and interprets the principles of production economics	<b>P7S_WG</b> <b>P7S_WK</b>
<b>WE_W29</b>	describes the conditions for proper management and disposal of by-products and waste associated with animal production	<b>P7S_WG</b>

#### **FOOD HYGIENE**

<b>WE_W30</b>	describes and interprets the principles of protecting consumer health through proper supervision of the production of foodstuffs of animal origin	<b>P7S_WG</b> <b>P7S_WK</b>
<b>WE_W31</b>	describes, interprets and evaluates conditions of hygiene and technology of production and food safety, and uses appropriate legal acts regulating veterinary supervision	<b>P7S_WG</b>
<b>WE_W32</b>	carries out ante- and post-mortem inspection of animals	<b>P7S_WG</b>
<b>WE_W33</b>	describes and implements the procedures related to HACCP( <i>Hazard Analysis and Critical Control Points</i> )	<b>P7S_WG</b> <b>P7S_WK</b>

#### **GENERAL PROFESSIONAL SKILLS**

**the graduate is able to:**

<b>WE_U1</b>	communicate effectively with clients, other veterinarians, and employees of inspection authorities and offices, state and local government	<b>P7S_UK</b>
<b>WE_U2</b>	demonstrate the ability to listen and respond in clear, appropriate language	<b>P7S_UK</b>
<b>WE_U3</b>	prepare clear case descriptions and maintain records, in accordance with applicable regulations, in a form that is understandable to the animal owner and readable by other veterinarians;	<b>P7S_UK</b> <b>P7S_UW</b>
<b>WE_U4</b>	demonstrate the ability to work in a multidisciplinary	<b>P7S_UO</b>

	team	
<b>WE_U5</b>	correctly interpret the veterinarian's responsibilities to the animal and its owner, and to the society and natural environment	<b>P7S_UU</b>
<b>WE_U6</b>	evaluate economic and social conditions under which the veterinary profession is practiced	<b>P7S_UU</b>
<b>WE_U7</b>	Is aware of the need to maximise professional skills to enhance the quality of veterinary care, animal welfare and public health	<b>P7S_UU</b> <b>P7S_UW</b>
<b>WE_U8</b>	has the ability to organise and run a veterinary practice	<b>P7S_UW</b>
<b>WE_U8A</b>	is aware of his own and the employer's responsibility for knowledge of and compliance with labour law and occupational safety and health	<b>P7S_UW</b>
<b>WE_U8B</b>	calculate fees and issue invoices and is aware of the importance of correct financial and medical record keeping	<b>P7S_UW</b>
<b>WE_U8C</b>	use IT systems to effectively communicate, collect, process, transmit, and analyse information	<b>P7S_UW</b>
<b>WE_U8D</b>	act in accordance with applicable standards and ethical principles	<b>P7S_UW</b>
<b>WE_U9</b>	demonstrate an understanding of the need and necessity for continuing education for ongoing professional development	<b>P7S_UU</b>
<b>WE_U10</b>	adapt his job offer to the changing situation on the labour market	<b>P7S_UU</b>
<b>WE_U11</b>	is aware of his own limitations and is able to use the advice and assistance of specialised units or persons in solving difficult problems	<b>P7S_UU</b> <b>P7S_UO</b> <b>P7S_UK</b>
<b>WE_U12</b>	use Polish and Latin medical nomenclature	<b>P7S_UW</b>
<b>WE_U13</b>	is able to communicate in a modern foreign language and use foreign language source materials	<b>P7S_UK</b>

### **PRACTICAL VOCATIONAL SKILLS**

**the graduate is able to:**

<b>WE_U14</b>	conduct a medical and veterinary interview in order to obtain accurate information about a single animal or group of animals and its or their habitat	<b>P7S_UW</b>
<b>WE_U15</b>	handle animals safely and humanely and instructs others to do so	<b>P7S_UW</b>
<b>WE_U16</b>	perform a complete clinical examination of the animal	<b>P7S_UW</b>
<b>WE_U17</b>	provide first aid to all animal species for hemorrhage, wounds, respiratory distress, eye and ear injuries, unconsciousness, cachexia, burns, tissue damage, internal injuries, and cardiac arrest	<b>P7S_UW</b>
<b>WE_U18</b>	evaluate and advises on an animal's proper nutritional status	<b>P7S_UW</b>

<b>WE_U19</b>	collect, secure, and knows how to transport samples and perform standard laboratory tests, and correctly analyses and interprets laboratory test results	<b>P7S_UW</b>
<b>WE_U20</b>	use diagnostic apparatus, including radiographic, ultrasound and other equipment, in accordance with their intended use and safety rules for animals and humans	<b>P7S_UW</b>
<b>WE_U21</b>	implement appropriate procedures when a notifiable disease is identified	<b>P7S_UW</b>
<b>WE_U22</b>	obtain and use information about authorised drugs	<b>P7S_UW</b>
<b>WE_U23</b>	prescribe and administer drugs and medical materials in accordance with current regulations, including their safe storage and disposal	<b>P7S_UW</b>
<b>WE_U24</b>	apply methods of safe sedation, general and local anesthesia, and pain assessment and relief	<b>P7S_UW</b>
<b>WE_U25</b>	select and apply appropriate treatment	<b>P7S_UW</b>
<b>WE_U26</b>	implement the principles of surgical aseptics and antisepsis and applies appropriate methods of sterilisation of equipment	<b>P7S_UW</b>
<b>WE_U27</b>	assess the need for euthanasia and informs the animal owner accordingly, and can perform the euthanasia in accordance with professional ethics and proper handling of the remains	<b>P7S_UW</b>
<b>WE_U28</b>	perform autopsy with description and take samples and secure them for transport	<b>P7S_UW</b>
<b>WE_U29</b>	perform ante- and post-mortem inspection and assesses the quality of animal products	<b>P7S_UW</b>
<b>WE_U30</b>	document and use the information collected related to the health and welfare and, in some cases, productivity of the herd	<b>P7S_UW</b>
<b>WE_U31</b>	develop and implement species-specific prevention programmes	<b>P7S_UW</b>
<b>WE_U32</b>	evaluate and implement recommendations to minimise the risk of contamination, cross-contamination, and accumulation of pathogens in veterinary facilities and the environment	<b>P7S_UW</b>

**SOCIAL COMPETENCE**  
the graduate is ready to:

<b>WE_K1</b>	demonstrate responsibility for decisions made toward people and animals	<b>P7S_KO</b> <b>P7S_KR</b>
<b>WE_K2</b>	observe ethical principles	<b>P7S_KR</b>
<b>WE_K3</b>	show tolerance for attitudes and behaviours resulting from different social and cultural conditions	<b>P7S_KK</b>
<b>WE_K4</b>	has the ability to resolve conflicts and the flexibility to respond to social changes	<b>P7S_KK</b>
<b>WE_K5</b>	critically evaluate own and others' actions and improve	<b>P7S_KK</b>

	proposed solutions	
<b>WE_K6</b>	has the habit of continuous improvement of knowledge and skills	<b>P7S_KR</b>
<b>WE_K7</b>	is aware of his own limitations	<b>P7S_KK</b>
<b>WE_K8</b>	put the patient's best interests first	<b>P7S_KR</b>
<b>WE_K9</b>	cooperate with representatives of other professions in the field of public health	<b>P7S_KK</b>
<b>WE_K10</b>	operate under conditions of uncertainty and stress	<b>P7S_KK</b>
<b>WE_K11</b>	organise the work of the team	<b>P7S_KO</b>
<b>WE_K12</b>	is aware of the necessity of involvement in professional and local government organisations	<b>P7S_KO</b> <b>P7S_KR</b>
<b>WE_K13</b>	is aware of the consequences of decisions taken, especially those that interfere with the natural environment	<b>P7S_KK</b> <b>P7S_KR</b>
<b>WE_K14</b>	knows the legal basis and principles of intellectual property protection	<b>P7S_KK</b>

**OTHER LEARNING OUTCOMES:**

**WE\_OTHER KNOWLEDGE**

**WE\_OTHER SKILLS**