## STUDY PROGRAMME - VETERINARY MEDICINE

Field of studies: Veterinary Medicine

Level of study: Long-cycle Master's degree programme

Profile of study: general academic

Form of study: intramural, extramural

Duration of degree programme: 11 semesters (5.5 YEAR)

The total number of ECTS required

for graduation: 360

Professional title: lekarz weterynarii (eq. of: veterinary surgeon

doctor of veterinary medicine)

ISCED code for study programme **0841** 

Study programme is assigned to following discipline/disciplines:

LP	Discipline	Leading discipline (YES/NO)	Percentage of learning outcomes related to discipline
1.	WETERYNARIA (VETERINARY MEDICINE)	YES	100%
Total:			100%

## **LEARNING OUTCOMES**

Based on the Regulation of the Ministry of Science and Higher Education from July 17<sup>th</sup> 2019, regarding education standards for veterinary profession.

#### **GENERAL LEARNING EFFECTS**

Regarding basic knowledge graduate knows and understands:

- 1) rules and mechanisms governing animal health, disease and therapy, from the cellular level, through the organs, organisms, herds to the whole population of animals;
- 2) development, structure, functioning behaviour and physiological mechanisms of animals in physiological conditions and mechanisms of disorders in pathology;
- 3) aetiology, pathogenesis and clinical symptoms of disease in various animal species and measures of therapeutic action;
- 4) diagnostic (including differential diagnostics) and therapeutic procedures specific for animal diseases;
- 5) guidelines for prescription of veterinary medical products for prophylaxis and therapy of animals and towards the food chain safety and environmental protection;
- 6) biology of infectious agents inducing diseases transmitted between animals, animals and humans, including mechanisms of the disease transmission and macro-organism defence systems;
- 7) guidelines of clinical evaluation according to the clinical evaluation plan, analysis of clinical symptoms and patomorphological changes;
- 8) guidelines for animal husbandry and breeding, including guidelines for animal feeding, animal well-being and production economics;
- 9) guidelines for use and utilisation of animal by-products and waste;
- 10) guidelines for ante-mortem and post-mortem examination of animals and products of animal origin;
- 11) guidelines for protection of consumer health;
- 12) guidelines for monitoring of production of food of animal origin;
- 13) norms, guidelines and conditions of animal production technology and of the hygiene of the technological process;
- 14) appropriate law regulations concerning veterinary practice;

15) basic information technologies and biostatistic methods utilised in veterinary practice.

## Regarding professional skills graduate knows how to:

- 1) conduct clinical evaluation, according to the principals of medical practice;
- analyse and interpret clinical symptoms, patomorphological changes, results of laboratory tests and other diagnostic methods, formulate diagnosis based on the principles of differential diagnostics, and conduct therapeutic or preventive actions;
- 3) formulate diagnostic plan;
- 4) monitor herd health and implement official epizootic procedures in case of the law-regulated diseases;
- 5) perform ante-mortem and post-mortem examination and examination of meat and other products of animal origin;
- 6) perform actions concerning veterinary supervision, including animal trade, conditions of animal facilities and manufacture of products of animal origin;
- 7) issue official opinion and veterinary verdict;
- 8) use Latin medical nomenclature to accurately understand and describe medical procedures, animal health conditions, diseases and pathological changes;
- 9) use basic computer systems for management of veterinary clinic and animal herd, and for the analysis of epizootic situation;
- 10) conduct basic statistical analyses and utilise appropriate methods to propagate their results;
- 11) utilise nomenclature and grammatic structure of foreign language, considered a language of international communication, to formulate and understand written and spoken expression of both general and veterinary nature;
- 12) maintain physical prowess required for work with selected animal species.

# Regarding social competences, graduate is prepared to:

- 1) take responsibility for his decisions concerning humans, animals and environment;
- act within the current standards and ethical obligations, perform actions based on the code of professional ethics, show tolerance to beliefs and behaviour influenced by different sociological and cultural background;
- 3) show competence in solving of conflicts and pliability in the reactions for sociological changes;
- 4) utilise unbiassed sources of information;
- 5) formulate conclusions from personal measurements or observations;

- 6) formulate opinions regarding various aspects of professional conduct;
- 7) perform critical self-evaluation, formulate constructive criticism regarding veterinary practice, accept criticism regarding postulated solutions, factual respond to that criticism based on the current scientific knowledge;
- 8) constantly update knowledge and skills for professional development;
- 9) communicate with co-workers and share the knowledge;
- 10) operate under stress and duress;
- 11) collaborate with specialists of other professions for the protection of public health;
- 12) engage in the operations of professional and territorial organisations.

## **DETAILED EFFECTS OF LEARNING**

#### A. BASIC ACADEMIC EDUCATION

# Regarding basic knowledge graduate knows and understands:

- A.W.1. morphology of the animal organism: cells, tissues, organs and systems;
- A.W.2. structure, functions, regulatory mechanisms and integration of the systems of the animal organism (respiratory, gastrointestinal, cardiovascular, urinary, nervous, reproductive, endocrine, immune and skin);
- A.W.3. development of organs and the whole organism in relation to the adult organism;
- A.W.4. metabolic processes on the molecular, cellular, organ and organism level;
- A.W.5. mechanisms of homeostasis, water management and acid-base balance;
- A.W.6. basic chemical reactions in water solutions;
- A.W.7. laws of hydrodynamics and factors influencing vascular blood flow;
- A.W.8. physical-chemistry regarding sensory functions;
- A.W.9. mechanisms of neurohormonal regulation, reproduction, ageing and death;
- A.W.10. mechanisms underlining animal health, disease and their therapy from the cellular level, through organs, organism, herd to the whole population of animals;
- A.W.11. relationship between factors influencing homeostasis of biological processes and physiological, and pathological changes;
- A.W.12. patophysiological changes in the organs and systems, biological mechanisms (including immunological) and therapeutical actions facilitating recovery;
- A.W.13.biology of infectious agents inducing diseases transmitted between animals, animals and humans, including mechanisms of the disease transmission and organism defence systems;
- A.W.14. genetic mechanisms, genetic disorders and bases of the genetic engineering;
- A.W.15. basics of microbiological diagnostics;

- A.W.16. mechanisms of drug action, their fate in the organism, adverse actions and drug-todrug interactions of veterinary pharmaceuticals in target animal species;
- A.W.17. the uses of anti-microbial and anti-parasitic chemotherapy;
- A.W.18. mechanisms of antibiotic resistance, including multi-antibiotic resistance by microorganisms and cancer cells;
- A.W.19. procedures and elements required to issue prescription for veterinary pharmaceuticals;
- A.W.20. English and Latin medical nomenclature;
- A.W.21. types of animal poisonings, diagnostic and therapeutic strategies in poisoning cases;
- A.W.22. code of ethics of veterinary surgeon;
- A.W.23. laws governing intellectual property;

# Regarding basic skills graduate knows how to:

- A.U.1. utilise knowledge of physics to explain the influence of external factors (temperature, pressure, electromagnetic force, ionizing radiation) on animal organism;
- A.U.2. utilise basic laboratory techniques, such as: qualitative analysis, titration, colorimetry, pH measurement, chromatography and protein, and nucleic acid electrophoresis;
- A.U.3. calculate molar and percent concentration of substances and compounds in the iso-osmotic solutions;
- A.U.4. describe changes in the function of the organism occurring upon alteration of homeostasis;
- A.U.5. predict direction of biochemical processes depending on the energetic status of the cell;
- A.U.6. describe anatomical bases of veterinary evaluation regarding inter-species variations;
- A.U.7. define physiological status of the animal as an adaptive process to environmental variability;
- A.U.8. under optical microscopy, differentiate and describe histological structures characteristic to organs, tissues and cells, relate their structure to function regarding inter-species variations;
- A.U.9. analyse genetic crosses and individual trait pedigrees from different species;
- A.U.10. conduct basic microbiological evaluation;
- A.U.11. select and implement rational, direct and conceptual antimicrobial chemotherapy regarding target animal species;

- A.U.12. effectively communicate with clients and veterinary surgeons;
- A.U.13. listen and explain in the language that is understandable and appropriate for the situation;
- A.U.14. formulate clear case studies and how to create documentation according to the current laws and regulations, in the form understandable for the owner of the animal and clear for other veterinary surgeons;
- A.U.15. operate in the interdisciplinary team;
- A.U.16. appropriately interpret responsibility of the veterinary surgeon towards animal, its owner, society and the environment;
- A.U.17. evaluate toxicological risk related to various technological directions of animal production;
- A.U.18. evaluates economical and sociological implications of the veterinary practice;
- A.U.19. implement professional skills in order to enhance the quality of veterinary care, animal welfare and public health;
- A.U.20. organise and maintain veterinary practice, calculate fees, issue official invoices, maintain fiscal records and use computer systems for effective communication, accumulation, processing, analysis and propagation of information;
- A.U.21. understand the need of continuous education for professional development;
- A.U.22. adapt professional offer to the dynamically changing situation on the work market;
- A.U.23. use the professional advice and help of the specialists or specialised units in difficult cases;

## **B. PROFESSIONAL EDUCATION**

## Regarding professional knowledge graduate knows and understands:

- B.W.1. disorders on the cellular, tissue, organ, system and organism levels occurring in the course of the disease;
- B.W.2. mechanisms of the organ and system pathologies;
- B.W.3. causes and symptoms of patomorphological changes, procedures for therapy and prevention in the particular diseases;
- B.W.4. diagnostic (including differential diagnostics) and therapeutic procedures;
- B.W.5. rules of clinical evaluation and animal health monitoring;

- B.W.6. how to interpret clinical data, results of the laboratory tests and other diagnostics techniques;
- B.W.7. appropriate law regulations, rules governing issuing of the verdicts and official opinions for the law courts, state, local and veterinary administration;
- B.W.8. official epizootic procedures in case of the law-regulated diseases;
- B.W.9. conditions of animal welfare;
- B.W.10. the interaction between parasite and host, general symptoms and patomorphological changes induced by parasites in the host organism;
- B.W.11. breeds within animal species, describes rules of animal husbandry and breeding;
- B.W.12. rules for animal selection for breeding, methods of breeding, reproductive biotechnology and husbandry selection;
- B.W.13. rules of animal feeding according to the species specifics and age;
- B.W.14. elaborate and analyse diet compositions;
- B.W.15. conditions for appropriate utilisation and disposal of animal by-products and management of waste from animal production;
- B.W.16. functioning of the State Veterinary Service, also in the aspect of public health prevention;
- B.W.17. rules of consumers health protection by the appropriate organ responsible for the production of foods of animal origin;
- B.W.18. HACCP (Hazard Analysis and Critical Control Points) procedures;
- B.W.19. procedures of ante-mortem and post-mortem examination of animals;
- B.W.20. conditions of hygiene and technology of animal production;
- B.W.21. regulations governing food production;
- B.W.22. rules of animal production economics.

## Regarding professional skills graduate knows how to:

- B.U.1. handle animals in safe and humane way, and instructs others to do alike;
- B.U.2. conduct anamnesis in order to acquire precise information on animal or group of animals (heard), and their environment;
- B.U.3. carry out full clinical evaluation;

- B.U.4. perform first aid procedures for all animal species for haemorrhage, wounds, respiratory disorders, eye and ear injuries, loss of consciousness, cahexia, burns, tissue injuries, internal injuries and heart block;
- B.U.5. evaluate nutritional state of the animal and ordains information on proper animal nutrition;
- B.U.6. collect and safeguard the biological material, conduct basic laboratory analyses, properly evaluate and interpret results of laboratory analyses;
- B.U.7. use diagnostic devices including x-ray, ultrasound, endoscopy, according to its manuals and health and safety regulations concerning animals and humans, interpret the results obtained from those diagnostic devices;
- B.U.8. implement according official epizootic procedures in case of the law-regulated diseases;
- B.U.9. acquire and use information on registered veterinary pharmaceuticals;
- B.U.10. prescribe and use veterinary pharmaceuticals and medical materials, including their safe storage and utilisation;
- B.U.11. use methods of safe sedation, general and local anaesthesia, and methods for pain evaluation and relief;
- B.U.12. monitor patient status during surgery and intensive care upon the basic life parameters;
- B.U.13. chose the treatment adequate for the diagnosed disease;
- B.U.14. implement rules of aseptic and antiseptic surgery procedures, and use proper methods of tools sterilisation;
- B.U.15. evaluate the need for euthanasia, properly informs the owner of the animal and carry out the euthanasia procedure according to rules and obligations of professional ethics and proper care and utilisation of the body;
- B.U.16. carry out patomorphological examination, prepare proper protocol, collect samples and safeguard them for transport;
- B.U.17. conduct ante-mortem and post-mortem examination of animals;
- B.U.18. evaluate quality of the products of animal origin;
- B.U.19. conduct epizootic investigation to establish onset and source of the infectious disease on farm before its diagnosis, identification of other involved farms, routes of

- communication of people, animals, and farm implements that may facilitate disease transmission to or from the affected farm;
- B.U.20. use documentation of the health, welfare and, in certain cases, the productivity of animals (herd);
- B.U.21. prepare the preventive schemes according to the species specifics;
- B.U.22. evaluate the risk of chemical and biological contamination of foods of animal origin;
- B.U.23. collect samples for monitoring of presence of prohibited substances, chemical, biological, pharmaceutical and radioactive traces from animals, their secretions and excretions, tissues, products of animal origin, food, feed and water;
- B.U.24. evaluate the conditions of slaughter animal protection concerning various slaughter systems;
- B.U.25. evaluate the risk and prepare the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment.

# C. SUPPLEMENTARY EDUCATION

# Regarding general knowledge graduate knows and understands:

- C.W.1. nomenclature and grammatic structure of at least one foreign language, considered a language of international communication on the minimal level of B2+ (Common European Framework of Reference for Languages, CEFR), including specialised nomenclature required for professional veterinary practice;
- C.W.2. functioning of institutions associated with veterinary profession and social role of veterinary surgeon;
- C.W.3. occupational health and safety regulations in veterinary practice.

# Regarding general skills graduate knows how to:

- C.U.1. use at least one foreign language, considered a language of international communication, to formulate and understand written and spoken expression of both general and veterinary nature on the minimal level of B2+ (Common European Framework of Reference for Languages, CEFR), including specialised nomenclature required for professional veterinary practice;
- C.U.2. critically analyse veterinary literature and formulate conclusions based on available literature;
- C.U.3. utilise computer systems and current sources of veterinary knowledge for effective use

and process of information;

C.U.4. effectively communicate with authorities of control offices and local, and national government.

## ASSESSMENT OF LEARNING OUTCOMES

Verification of learning outcomes requires varied formal assessment methods, appropriate to categories of knowledge, skills and social competences to which these outcomes refer to.

The achievement of learning outcomes in regard to knowledge can be evaluated with written and oral exams, review papers, dissertations and presentations.

Appropriate forms of written exams are as follows: essays, reports, short structured questions, multiple choice tests, multiple answer tests, true/false choice tests or answer matching tests.

The aim of oral exams is not merely to evaluate basic knowledge, but to verify the competences and skills in comprehension, analysis, information synthesis, problem solving and communication.

The verification of learning outcomes in regard to communication and procedural (manual) skills requires direct observation of the student performing certain task during exam.

## **CONCEPT OF EDUCATION**

The concept and education aims for veterinary medicine are direct representation of policy for quality learning and strategy of WULS-SGGW formulated until 2020 and strategical aims of education. The five major strategic aims: *Improve education, Improve scientific research, Collaboration and internationalisation, Development of technology transfer, Finances and administration* formulate the guiding path which coherently, yet on multiple levels allow the concept of modern teaching and scientific activity in the scope of agricultural sciences in the discipline if veterinary medicine.

Study offering in veterinary medicine at the Faculty of Veterinary Medicine, WULS-SGGW formulates an answer to current social situation and challenges of global professional market. According to Strategy of development of WULS-SGGW, quality of education, "a guarantee for knowledgeable and skill-full graduate useful for the economic and intellectual development of the country", results from systematic verification and improvement of study offering fulfilled within a wide collaboration with internal and external stakeholders.

Warsaw University of Life Sciences – SGGW "conducts scientific research within widely-defined frame of natural sciences as well as economical, humane and technical sciences" (Mission of

WULS-SGGW). Constant enhancement of scientific research, development of study offering, popularisation of research results, international collaboration via joint research actions and joint educational programs which coincides with the progress of the level of graduate – are the main aims of the University. Graduating students are knowledgeable and skill-full within distinct taught WULS-SGGW disciplines, as well as widely educated towards open opinion, tolerance, patriotism, honesty, scientific integrity and respect for all the people.

Concept of education for veterinary sciences and learning effects acquired during studies are based on the Regulation of the Ministry of Science and Higher Education from July 17<sup>th</sup> 2019, regarding education standards for veterinary profession, Faculty Teaching Quality Assurance and Improvement System for 2013-2020, requirements of the EAEVE (European Association of Establishments for Veterinary Education) and general European Guidelines for Higher Education.

Mission of the Faculty is to conduct actions promoting social development through state-of-theart scientific research and constant development of professional staff. Furthermore, study offering for veterinary medicine reflects fluctuating needs and changes of the professional market through permanent collaboration with the socio-economic environment in the field of teaching and research activities.

# Study offering for veterinary medicine through the careful and competent selection of programme content provides students of long-cycle Master's degree programme with:

- knowledge required to describe rules and mechanisms underlining animal health, disease and therapy, from the cellular level, through tissue, organ, organism to the whole animal population and ecosystem;
- competence in analysis and interpretation of clinical symptoms, patomorphology changes, and results of laboratory and supplementary diagnostics;
- competence in disease diagnosis (with specific impact on differential diagnostics);
- skills in therapeutic and prophylactic actions;
- competences in soft skills: problem solving, accumulation, elaboration and propagation of knowledge, working in the multidisciplinary team.

This concept predicts that graduate is at a basic competence level to conduct scientific and analytical tasks, and knows how to utilise acquired competences to adapt to the constantly changing global professional market in both private and public sectors.

# ELECTIVE MODULES, CLINICAL ROTATIONS AND WORK PRACTICES IN THE EDUCATION PROGRAMME OF VETERINARY SCIENCES

According to the Regulation of the Ministry of Science and Higher Education from July 17<sup>th</sup> 2019, regarding education standards for veterinary profession (Dz. U. z 2019, poz. 1364), veterinary education is realised through the student participation in three distinct types of classes: lectures; practical classes;

clinical rotations and work practices. Basic and directional subjects are taught as mandatory and elective modules. Recruitment to the elective modules is realised through the eHMS system and are carried out within last two weeks prior to the new semester (including 1<sup>st</sup> semester). Student may pick any of the single (not blocked) modules or is obliged to pick one of the offered elective blocks (10<sup>th</sup> and 11<sup>th</sup> semesters).

# Minimal clinical rotations included in the Ministry of Science and Higher Education regulations:

Type of the rotation	hours	ECTS
Avian diseases	30	2
Farm animal diseases	90	6
Equine diseases	90	6
Dog and cat diseases	90	6

Farm animal diseases rotation and Equine diseases rotation are realised within single modules of 90 curricular hours each, similarly Avian diseases rotation is realised as a single module of 30 hours. The rotation in dog and cat diseases is split into two modules: Rotation – dog and cat diseases of 85 curricular hours and Rotation – veterinary laboratory diagnostics of 15 hours. Exceeding Ministry regulations, following consultations with external stakeholders, the Rotation – laboratory class of parasitology was introduced with 15 curricular hours. All rotations excluding Rotation – veterinary laboratory diagnostics (which is realised at 11<sup>th</sup> semester) are scheduled for 10<sup>th</sup> semester.

# Work practices:

According to the Regulation of the Ministry of Science and Higher Education from July 17<sup>th</sup> 2019 work practices in the veterinary education programme consider mandatory modules, of 15 ECTS total, oriented towards practical aspects of functioning and the role of veterinarian on animal production / reproduction farms, veterinary clinics, slaughterhouses and food of animal origin production facilities.

Type of words processes	Period -	Tiı	me	ECTS
Type of work practice	Period	weeks	hours	ECIS
Husbandry practice	after 4 <sup>th</sup> semester	2	80	1
Clinical practice module 1	after 8 <sup>th</sup> semester	4	160	5
Vet. inspection practice, slaughter house	after 8 <sup>th</sup> semester	2	80	2
Clinical practice module 2	after 10 <sup>th</sup> semester	4	160	5
Vet. inspection, meat hygiene	after 10 <sup>th</sup> semester	2	80	2

Considering the weight of the subject, from the 15 Ministry-regulated ECTS, the clinical practices

received highest number of the ECTS, followed by veterinary inspection practice and husbandry practice. All work practices are realised by external stakeholders. During work practice, student is obliged to fill in the summer practice diary, which must be authenticated by the external stakeholder. Within first two weeks of semester following the summer work practice, student undergoes examination with designated University teachers to obtain the grade which will be recorded in the eHMS system.

## STUDY OFFERING SUCCEEDS FROM THE FOLLOWING ACTIONS:

- broad discussions within the staff of the Faculty of Veterinary Medicine (from the level of Division, Department, through Faculty Committee for Education to Faculty Council);
- adaptation of the programme to the current legal provisions;
- regular supervision of classes, semester analysis of learning outcomes, systematic discussions on class improvement;
- consultations with external stakeholders (employers, practice and rotation supervisors);
- regular monitoring of professional fate of graduates, meetings and consultations, and permanent communication with the WULS-SGGW Careers Office.

# SKILLS AND COMPETENCES OF THE GRADUATE OF LONG-CYCLE MASTER'S DEGREE PROGRAMME IN VETERINARY MEDICINE

Graduate of long-cycle master's degree programme in veterinary medicine knows and understands disorders at the level of cell, tissue, organ, system and organism, knows the the factors underlying therapeutic and preventive actions in various diseases. He knows and understands legal acts and law regulations, rules governing issuing of the verdicts and official opinions for the law courts, state, local and veterinary administration as well as professional self-government. Knows how to conduct and implement official epizootic procedures in case of the law-regulated diseases and rules regarding well-being of animals. Possesses, general knowledge regarding animal selection for breeding, methods of breeding, reproductive biotechnology and husbandry selection. Knows the rules of animal feeding according to the species specifics and age. Understands conditions for appropriate utilisation and disposal of animal by-products and management of waste from animal production. Recognizes the State Veterinary Inspection, also in the aspect of public health prevention. Knows rules of consumers health protection by the appropriate organ responsible for the production of foods of animal origin and HACCP (Hazard Analysis and Critical Control Points) procedures.

Regarding professional skills, graduate knows how to handle animals in safe and humane way, and instructs others to do alike, conduct anamnesis in order to acquire precise information on animal or group of animals (heard), and their environment, finally carry out full clinical evaluation. Graduate perform first aid procedures for all animal species for haemorrhage, wounds, respiratory disorders, eye

and ear injuries, loss of consciousness, cahexia, burns, tissue injuries, internal injuries and heart block, collects and safeguards the biological material, conducts basic laboratory analyses, properly evaluates and interprets results of laboratory analyses. He is competent in the use of diagnostic devices including x-ray, ultrasound, endoscopy, according to its manuals and health and safety regulations concerning animals and humans, interpret the results obtained from those diagnostic devices. Is capable of implementation of adequate official epizootic procedures in case of the law-regulated diseases, acquires and uses information on registered veterinary pharmaceuticals, prescribes and uses veterinary pharmaceuticals and medical materials, knows how to safe storage and utilise them. Graduate is skilled in methods of safe sedation, general and local anaesthesia, and methods for pain evaluation and relief, and is capable to monitor patient status during surgery and intensive care upon the basic life parameters. Skills include implementation of rules of aseptic and antiseptic surgery procedures, and use of proper methods of tools sterilisation. Graduate can evaluate the need for euthanasia, properly informs the owner of the animal and carry out the euthanasia procedure according to rules and obligations of professional ethics and proper care and utilisation of the body. Knows how to perform patomorphological examination, prepare formal dissection protocol, collect samples and safeguard them for transport, how to conduct ante-mortem and post-mortem examination of animals and evaluation of quality of the products of animal origin. He is able to conduct epizootic investigation to establish onset and source of the infectious disease on farm before its diagnosis, identification of other involved farms, routes of communication of people, animals, and farm implements that may facilitate disease transmission to or from the affected farm, use documentation of the health, welfare and, in certain cases, the productivity of animals (herd), and prepare the preventive schemes according to the species specifics.

Other skills of a graduate include use of at least one foreign language, considered a language of international communication, to formulate and understand written and spoken expression of both general and veterinary nature on the minimal level of B2+ (Common European Framework of Reference for Languages, CEFR), including specialised nomenclature required for professional veterinary practice, critically analysis of veterinary literature and ability to formulate conclusions based on available literature by utilisation of computer systems and current sources of veterinary knowledge in effective use and process of information. Finally, graduate knows how to effectively communicate with authorities of control offices and local, and national government.

**STUDY OFFERING** – attachment No 1

**LEARNING OUTCOMES MATRIX** – attachment No 2

**OPINION OF THE STUDENT COUNCIL** – attachment No 3

SYLLABI OF THE MODULES – attachment No 4

#### STUDY OFFERING, CURRICULUM HOUR MATRIX

Unit: Faculty of Veterinary Medicine Field of studies: Veterinary Medicine

Level of study: Long-cycle Master's degree programme Profile of study: General Academic (GA)

YEAR 1, SEMESTER 1

1 11 111

No	Year	Sem.	Old catalogue number	New catalogue number	Type of the module (Basic/ Directional/ Social sciences)	Mandatory	General academic / Practical	Module	Lectures	Practicals	Seminars	Field exercices	e-learning	ECTS	ECTS_k	Estimated hours for ECTS	Curricular hours
1	1	1		FVM-V-JMSS-01W-B07/1_19	В	m	GA	Animal anatomy module 1	30	60				8	4	240	90
2	1	1		FVM-V-JMSS-01W-B06/1_19	В	m		Histology and embroylogy module 1	15	15				5	2	190	30
3	1	1		FVM-V-JMSS-01W-B02_19	В	m	GA	Cell biology	15	15				2	1	45	
4	1	1	B1	FVM-V-JMSS-01W-B01_19	В	m	GA	Biology	30					2	1	30	30
5	1	1	A3	FVM-V-JMSS-01W-A03_19	В	m		Information technology		30				2	1	52	30
6	1	1	B4	FVM-V-JMSS-01W-B04_19	В	m	GA	Biophysics	30					2	1	42	
7	1	1	A4	FVM-V-JMSS-01W-A04_19	В	m		Latin		30				2	1	30	
8	1	1	B5	FVM-V-JMSS-01W-B05_19	В	m	GA	Chemistry	15	30				3	2	75	45
9	1	1	A7/1	FVM-V-JMSS-01W-A07/1_19	В	m		Physical education module 1		30				0	0	0	30
10	1	1	A8	FVM-V-JMSS-01W-A08_19	S	m	GA	Copyrights in academia	15					1	1	30	
11	1	1	A2	FVM-V-JMSS-01W-A02_19	В	е	GA	Molecular cell physiology	30					2	1	45	30
12	1	1	E6	FVM-V-JMSS-01W-E06_19	S	е		Intercultural communication	30					2	1	45	30
13	1	1	E65	FVM-V-JMSS-01W-E65_19	В	е	GA	Calculus	7	8				1	1	30	
14	1	1	A6/2	FVM-V-JMSS-01W-A06/2_19	В	е		English language for university student		15				1	1	30	
15	1	1		FVM-V-JMSS-01W-E95_19	S	е		Successful learning	15					1	1	30	
16	1	1	E96	FVM-V-JMSS-01W-E96_19	S	е		Critical thinking	15					1	1	30	
17	1	1	A6/1	FVM-V-JMSS-01W-A06/1_19	S	е		Polish language		30				2	1	45	30
								Sum of hours:	247	263	0	0	0				

Curricular ECTS social sciences: 7 **ECTS** electives: 10 ECTS total: 37 21 510 hours: ECTS social sciences: 7 37 21 ECTS for student: **ECTS** electives: 10 ECTS total: Hours: 510

YEAR 1, SEMESTER 2

No	Year	Sem.	Old catalogue number	New catalogue number	Type of the module (Basic/ Directional/ Social sciences)	Mandatory	General academic / Practical	Module	Lectures	Practicals	Seminars	Field exercices	e-learning	ECTS	ECTS_k	Estimated hours for ECTS	Curricular hours
18	1	2	B7/2	FVM-V-JMSS-02S-B07/2_19	В	m	GA	Animal anatomy module 2	30	60				8	4	370	90
19	1	2	B6/2	FVM-V-JMSS-02S-B06/2_19	В	m	GA	Histology and embryology Module 2	30	30				5	3	190	60
20	1	2	B3/1	FVM-V-JMSS-02S-B03/1_19	В	m	GA	Biochemistry module 1	15	45				4	3	100	60
21	1	2	B12	FVM-V-JMSS-02S-B12_19	В	m	GA	General and veterinary genetics	15	15				2	1	45	30
22	1	2	B18	FVM-V-JMSS-02S-B18_19	В	m		Environmental protection	30					2	1	60	30
23	1	2	B19	FVM-V-JMSS-02S-B19_19	В	m	GA	Biostatistics and methods of documentation	15	15				2	1	60	30
24	1	2	D29	FVM-V-JMSS-02S-D29_19	D	m	GA	History of veterinary and deontology	30					2	1	60	30
25	1	2	D1	FVM-V-JMSS-02S-D01_19	D	m		Agronomy	15					1	1	28	15
26	1	2	A7/2	FVM-V-JMSS-02S-A07/2_19	В	m		Physical education module 2		30		•		0	0	0	30
27	1	2	A5/1	FVM-V-JMSS-02S-A05/1_19	S	m		Polish language module 1		30				2	1	35	30
28	1	2	E7	FVM-V-JMSS-02S-E07_19	D	е	GA	Aquaculture and exotic animals care	30					2	1	45	30
29	1	2	E68	FVM-V-JMSS-02S-E68_19	D	е	GA	Breeds and varieties of dogs and cats	15					1	1	30	15

	Sum of hours:	225	225 0	0 0				
	ECTS social sciences:	2	ECTS electives:	3 ECTS total:	31	18	Curricular hours:	450
ECTS for student:	ECTS social sciences:	2	<b>ECTS</b> electives:	3 ECTS total:	31	18	Hours:	450

31		YEAR 2,	SEMEST	ER 3															
No   Vear   Sem.   Order   New catalogue number   New catalogue nu						I	II	III											
31	No	Year	Sem.	catalogue	New catalogue number	module (Basic/ Directional/ Social	•	academic /	Module		Lectures	Practicals	Seminars		e-learning	ECTS	ECTS_k	hours for	
32   2   3   50   2   FVM-VIMS-SG3W-002 19   0   m   GA   Animal husbandly and breeding   30   15     3   2   60   45   63   63   63   63   63   63   63   6	30	2	3	B3/2	FVM-V-JMSS-03W-B03/2_19	В	m	GA	Biochemistry module 2		30	45				6	3	150	75
33   2   3   03   FVM-V-IMSO3W-D03 19   D   m   GA   Technologies in animal production   30     2   1   36   30   35   2   3   08   FVM-V-IMSO3W-D08 19   D   m   Nettology   30     2   1   1   1   1   25   15   15	31	2	3	B9/1	FVM-V-JMSS-03W-B09/1_19	В	m	GA	Animal physiology module 1		30	39	6			6	4	89	75
35   2   3   DE   VVVV-MASS-03W-006 19   D   m   Ethology   30     2   1   50   30   30     35   35   35   35	32	2	3	D2	FVM-V-JMSS-03W-D02_19	D	m	GA	Animal husbandry and breeding		30	15				3	2	60	45
36   2   3   0.8   PVM-VMSS-03W-005 19   D   m   Veterinary economics   15         1   1   2.5   1.5	33	2	3	D3	FVM-V-JMSS-03W-D03_19	D	m	GA	Technologies in animal production							2	1		
38	34	2	3	D6		D	m		Ethology		30					2	1		
38	35	2	3	D8	_	D	m		Veterinary economics		15					1	1	25	
38		2	3			В	m	GA								2	1		30
39   2   3   A1   FVM-V-JMSS-03W-R01   19   B   e   GA   Comparative anatomy     45     4   2   120   45			-	A5/2	· -	_	m		Ü Ü							2	1		60
A		2	3	B10/1			m				30					5	4		75
Sum of hours:   210   279   6   0   0		2	3				е									4	2		
ECTS social sciences:   2   ECTS electives:   5   ECTS total:   34   21   hours:   495	40	2	3	E69	FVM-V-JMSS-03W-E69_19	D	е	GA	Medical botany							1	1	30	15
No   Vear   Sem.   Catalogue   number   New catalogue number   New catalogue number   New catalogue number   New catalogue number   Directional   Social sciences   Social sciences   New catalogue number   Directional   Social sciences   New catalogue number   Directional   Social sciences   New catalogue number   New catalogue number   Directional   Social sciences   New catalogue number   Directional   New catalogue number   Directi		YEAR 2,	SEMEST	ER 4						ECTS social sciences:	2	E	CTS electives:	5	ECTS total:	34		hours:	495 495
42         2         4         B10/2         FVM-V-JMSS-04S-B10/2_19         B         m         GA         Veterinary microbiology module 2         30         45         5         4         150         75           43         2         4         D4         FVM-V-JMSS-04S-D04_19         D         m         GA         Animal nutrition and feeding         30         20         6         4         4         2         109         60           44         2         4         A5/3         FVM-V-JMSS-04S-A05/3_19         S         m         Polish language module 3         60         2         1         65         60           45         2         4         B11         FVM-V-JMSS-04S-B11_19         B         m         GA         Immunology         15         15         15         4         3         97         45           46         2         4         B8         FVM-V-JMSS-04S-B08_19         B         m         GA         Topographic anatomy         15         24         6         4         2         120         45           47         2         4         E8         FVM-V-JMSS-04S-E08_19         B         e         GA         Physiology of exercise	No	Year	Sem.	catalogue	-	module (Basic/ Directional/ Social	Mandatory	General academic /	Module		Lectures	Practicals	Seminars		e-learning	ECTS	ECTS_k	hours for	
43       2       4       D4       FVM-V-JMSS-04S-D04_19       D       m       GA       Animal nutrition and feeding       30       20       6       4       4       2       109       60         44       2       4       A5/3       FVM-V-JMSS-04S-A05/3_19       S       m       Polish language module 3       60       2       1       65       60         45       2       4       B11       FVM-V-JMSS-04S-B11_19       B       m       GA       Immunology       15       15       15       4       3       97       45         46       2       4       B8       FVM-V-JMSS-04S-B08_19       B       m       GA       Topographic anatomy       15       24       6       4       2       120       45         47       2       4       E8       FVM-V-JMSS-04S-E08_19       B       e       GA       Physiology of exercise       30       2       1       50       30         48       2       4       E97       FVM-V-JMSS-04S-E97_19       D       e       GA       Principles of animal handling       30       2       1       60       30         49       2       4       WP1       FVM-V-J		4	4				m									6	4		
44     2     4     A5/3     FVM-V-JMSS-04S-A05/3_19     5     m     Polish language module 3     60     2     1     65     60       45     2     4     B11     FVM-V-JMSS-04S-B11_19     B     m     GA     Immunology     15     15     15     15     4     3     97     45       46     2     4     B8     FVM-V-JMSS-04S-B08_19     B     m     GA     Topographic anatomy     15     24     6     4     2     120     45       47     2     4     E8     FVM-V-JMSS-04S-E08_19     B     e     GA     Physiology of exercise     30     2     1     50     30       48     2     4     E97     FVM-V-JMSS-04S-E97_19     D     e     GA     Principles of animal handling     30     2     1     50     30       49     2     4     WP1     FVM-V-JMSS-04S-WP1_19     D     sp     GA     Husbandry practice (summer practice)     80     1     0     80     80		4	-		• -											5	4		
45         2         4         B11         FVM-V-JMSS-04S-B11_19         B         m         GA         Immunology         15         15         15         4         3         97         45           46         2         4         B8         FVM-V-JMSS-04S-808_19         B         m         GA         Topographic anatomy         15         24         6         4         2         120         45           47         2         4         E8         FVM-V-JMSS-04S-E08_19         B         e         GA         Physiology of exercise         30         2         1         50         30           48         2         4         E9         FVM-V-JMSS-04S-E97_19         D         e         GA         Principles of animal handling         30         2         1         50         30           49         2         4         WP1         FVM-V-JMSS-04S-WP1_19         D         sp         GA         Husbandry practice (summer practice)         80         1         0         80         80		4	-					GA			30			4		4	2		
46         2         4         B8         FVM-V-JMSS-04S-808_19         B         m         GA         Topographic anatomy         15         24         6         4         2         120         45           47         2         4         E8         FVM-V-JMSS-04S-E08_19         B         e         GA         Physiology of exercise         30         2         1         50         30           48         2         4         E97         FVM-V-JMSS-04S-E97_19         D         e         GA         Principles of animal handling         30         2         1         60         30           49         2         4         WP1         FVM-V-JMSS-04S-WP1_19         D         sp         GA         Husbandry practice (summer practice)         80         1         0         80         80		-1	-			_										2	1		
47         2         4         E8         FVM-V-JMSS-04S-E08_19         B         e         GA         Physiology of exercise         30         2         1         50         30           48         2         4         E97         FVM-V-JMSS-04S-E97_19         D         e         GA         Principles of animal handling         30         2         1         60         30           49         2         4         WP1         FVM-V-JMSS-04S-WP1_19         D         sp         GA         Husbandry practice (summer practice)         80         1         0         80         80		4	-													4	3		
48     2     4     E97     FVM-V-JMSS-04S-E97_19     D     e     GA     Principles of animal handling     30     2     1     60     30       49     2     4     WP1     FVM-V-JMSS-04S-WP1_19     D     sp     GA     Husbandry practice (summer practice)     80     1     0     80     80		4	-										6			4	2		45
49 <b>2 4</b> WP1 FVM-V-JMSS-04S-WP1_19 <b>D sp</b> GA Husbandry practice (summer practice) 80 1 0 80 80		1 -	4				е				30					2	1		30
		2	4		_							30				2	1		30
	49	2	4	WP1	FVM-V-JMSS-04S-WP1_19	D	sp	GA	Husbandry practice (summer practice)	- 41			<u> </u>			1	0	80	80

Sum of hours:

ECTS social sciences:

ECTS social sciences:

150

2

2

**ECTS** electives:

**ECTS** electives:

4 ECTS total:

4 ECTS total:

30

30

Curricular

hours:

Hours:

500

500

18

18

ECTS for student:

#### YEAR 3, SEMESTER 5

					ı	II	III										
No	Year	Sem.	Old catalogue number	New catalogue number	Type of the module (Basic/ Directional/ Social sciences)	Mandatory Elective	General academic / Practical	Module	Lectures	Practicals	Seminars	Field exercices	e-learning	ECTS	ECTS_k	Estimated hours for ECTS	Curricular hours
50	3	5	B14	FVM-V-JMSS-05W-B14_19	В	m	GA	Animal pathophysiology	60	39	6			10	6	300	105
51	3	5	B15/1	FVM-V-JMSS-05W-B15/1_19	В	m	GA	Veterinary pharmacology module 1	30	30				4	2	175	60
52	3	5	D13/1	FVM-V-JMSS-05W-D13/1_19	D	m	GA	Parasitology and invasiology module 1	30	30				5	2	100	60
53	3	5	D11/1	FVM-V-JMSS-05W-D11/1_19	D	m	GA	Pathomorphology module 1	30	45				8	3	200	75
54	3	5	A5/4	FVM-V-JMSS-05W-A05/4_19	S	m		Polish language module 4		30				2	1	35	30
55	3	5	D10/1	FVM-V-JMSS-05W-D10/1_19	D	m	GA	Clinical and laboratory diagnostics Module 1	30	30				3	2	90	60
56	3	5	E11	FVM-V-JMSS-05W-E11_19	D	е	GA	Veterinary virology	15					1	1	25	15
57	3	5	E10	FVM-V-JMSS-05W-E10_19	D	е	GA	Bacteriological and mycological laboratory diagnostics of skin infections in dogs and cats		15				1	1	30	15
58	3	5	E77	FVM-V-JMSS-05W-E77_19	D	е	GA	One Health in veterinary practice	15					1	1	30	15

Sum of hours: 210 219 6 0 0

Curricular

ECTS social sciences: 2 **ECTS** electives: 3 ECTS total: 35 19 435 hours: ECTS for student: 2 35 19 ECTS social sciences: **ECTS** electives: 3 ECTS total: Hours: 435

YEAR 3, SEMESTER 6

Ш

ECTS for student:

No	Year	Sem.	Old catalogue number	New catalogue number	Type of the module (Basic/ Directional/ Social sciences)	Mandatory	General academic / Practical	Module	Lectures	Practicals	Seminars	Field exercices	e-learning	ECTS	ECTS_k	Estimated hours for ECTS	Curricular hours
59	3	6	B15/2	FVM-V-JMSS-06S-B15/2_19	В	m	GA	Veterinary pharmacology module 2	15	45				4	2	175	60
60	3	6	D11/2	FVM-V-JMSS-06S-D11/2_19	D	m	GA	Pathomorphology module 2	30	45				8	3	200	75
61	3	6	B16	FVM-V-JMSS-06S-B16_19	В	m	GA	Veterinary pharmacy	15					1	1	25	15
62	3	6	D12	FVM-V-JMSS-06S-D12_19	D	m	GA	General surgery and anesthesiology	15	30				3	2	90	45
63	3	6	D9	FVM-V-JMSS-06S-D09_19	D	m	GA	Diagnostic imaging	15	45				3	2	118	60
64	3	6	D27	FVM-V-JMSS-06S-D27_19	D	m	GA	Response to public health related disasters	15	15				2	1	56	30
65	3	6	D13/2	FVM-V-JMSS-06S-D13/2_19	D	m	GA	Parasitology and invasiology module 2	15	30				3	2	80	45
66	3	6	D10/2	FVM-V-JMSS-06S-D10/2_19	D	m	GA	Clinical and laboratory diagnostics module 2	30	30				4	2	60	60
67	3	6	D21	FVM-V-JMSS-06S-D21_19	D	m	GA	Bee diseases	15	8		7		1	1	40	30
68	3	6	E13	FVM-V-JMSS-06S-E13_19	В	е	GA	Advances in biomedical sciences - joint course			15			2	1	45	15
69	3	6	E71	FVM-V-JMSS-06S-E71_19	В	е	GA	Experimental immunology	6	3	6			1	1	30	15

171 21 Sum of hours: 251 Curricular ECTS social sciences: 0 **ECTS** electives: 3 ECTS total: 18 450 32 hours: ECTS social sciences: 0 **ECTS** electives: 3 ECTS total: 32 18 Hours: 450

	YEAR 4,	, SEMEST	ER 7														
No	Year	Sem.	Old catalogue number	New catalogue number	Type of the module (Basic/ Directional/ Social sciences)	Mandatory Elective	General academic / Practical	Module	Lectures	Practicals	Seminars	Field exercices	e-learning	ECTS	ECTS_k	Estimated hours for ECTS	Curricular hours
70	4	7		FVM-V-JMSS-07W-D16_19	D	m		Farm animal diseases	105	129		21		15	10		
71	4	7		FVM-V-JMSS-07W-D22/1_19	D	m		Meat hygiene module 1	15	45				3	2	100	60
72	4	7		FVM-V-JMSS-07W-D11/3_19	D	m		Pathomorphology module 3	30	30				8	3	200	60
73	4	7		FVM-V-JMSS-07W-D26_19	D	m		Feed hygiene	20			10		2	1	56	30
74	4	7	E46	FVM-V-JMSS-07W-E45_19	D	е	GA	Radiographic anatomy of dog and cat		15				1	1	30	15
75	4	7	E50	FVM-V-JMSS-07W-E50_19	D	е	GA	Clinical and functional neuroanatomy in dogs and cats		15				1	1	30	15
76	4	7	E78	FVM-V-JMSS-07W-E78_19	D	е	GA	Management of laboratory animal facility	15					1	1	30	15
	YEAR 4,	, SEMEST	ER 8		ı	ECTS	6 for student:	Sum of hours: ECTS social sciences: ECTS social sciences:	185 0 0	EC	O CTS electives: CTS electives:	31 3 3	ECTS total:	31 31	19 19	Curricular hours: Hours:	450
No	Year	Sem.	Old catalogue number	New catalogue number	Type of the module (Basic/ Directional/ Social sciences)	Mandatory Elective	General academic / Practical	Module	Lectures	Practicals	Seminars	Field exercices	e-learning	ECTS	ECTS_k	Estimated hours for ECTS	Curricular hours

No	Year	Sem.	Old catalogue number	New catalogue number	Type of the module (Basic/ Directional/ Social sciences)	Mandatory	General academic / Practical	Module	Lectures	Practicals	Seminars	Field exercices	e-learning	ECTS	ECTS_k	Estimated hours for ECTS	Curricular hours
77	4	8	D15	FVM-V-JMSS-08S-D15_19	D	m	GA	Equine diseases	60	120				12	7	300	180
78	4	8	D22/2	FVM-V-JMSS-08S-D22/2_19	D	m	GA	Meat Hygiene module 2	15	30				4	2	90	45
79	4	8	D25	FVM-V-JMSS-08S-D25_19	D	m	GA	Zoonoses	15					1	1	25	15
80	4	8	B17	FVM-V-JMSS-08S-B17_19	В	m	GA	General toxicology	30	30				3	2	75	60
81	4	8	D17	FVM-V-JMSS-08S-D17_19	D	m	GA	Andrology and artificial insemination	14	20		6		3	2	80	40
82	4	8	B20	FVM-V-JMSS-08S-B20_19	В	m	GA	Veterinary jurisprudence	15		15			2	1	60	30
83	4	8	D20	FVM-V-JMSS-08S-D20_19	D	m	GA	Fish diseases	15	10				1	1	25	25
84	4	8	E19	FVM-V-JMSS-08S-E19_19	D	е	GA	Clinical immunology			15			1	1	30	15
85	4	8	E85	FVM-V-JMSS-08S-E85_19	D	е	GA	Clinical haematology	3	12				1	1	30	15
86	4	8	WP2	FVM-V-JMSS-08S-WP2_19	D	sp	GA	Clinical practice module 1 (summer practice)				160		5	0	160	160
87	4	8	WP3	FVM-V-JMSS-08S-WP3_19	D	sp	GA	Vet. inspection practice, slaughter house (summer practice)				80		2	0	80	80

Sum of hours: 167 222 30 246 0 Curricular ECTS social sciences: 0 **ECTS** electives: 2 ECTS total: 18 665 35 hours: ECTS for student: ECTS social sciences: 0 **ECTS** electives: 2 ECTS total: 35 18 Hours: 665

YEAR 5, SEMESTER 9

					ı	II	Ш										
No	Year	Sem.	Old catalogue number	New catalogue number	Type of the module (Basic/ Directional/ Social sciences)	Mandatory	General academic / Practical	Module	Lectures	Practicals	Seminars	Field exercices	e-learning	ECTS	ECTS_k	Estimated hours for ECTS	Curricular hours
88	5	9	D14	FVM-V-JMSS-09W-D14_19	D	m	GA	Dog and cat diseases	75	150				14	9	450	225
89	5	9	D5	FVM-V-JMSS-09W-D05_19	D	m	GA	Dietetics	15		15			1	1	40	30
90	5	9	D18	FVM-V-JMSS-09W-D18_19	D	m	GA	Avian diseases	45	45				6	3	180	90
91	5	9	D28	FVM-V-JMSS-09W-D28_19	D	m	GA	Administration and legal aspects in veterinary	15		30			2	1	60	45
92	5	9	D19	FVM-V-JMSS-09W-D19_19	D	m	GA	Fur animals diseases	10	9		6		1	1	35	25
93	5	9	D23/1	FVM-V-JMSS-09W-D23/1_19	D	m	GA	Hygiene of food of animal origin module 1	30	45				4	3	195	75
94	5	9	E20	FVM-V-JMSS-09W-E20_19	D	е	GA	Clinical toxicology of large animals	15					1	1	25	15
95	5	9	E21	FVM-V-JMSS-09W-E21_19	D	е	GA	Clinical toxicology of small animals	15					1	1	25	15
96	5	9	E80	FVM-V-JMSS-09W-E80_19	D	е	GA	Veterinary at the border control	6	6		3		1	1	30	15
97	5	9	E84	FVM-V-JMSS-09W-E84_19	D	е	GA	Reptile and amphibian dietetics	15					1	1	30	15
								Sum of hours:	241	255	45	9	0				

social sciences: 0 ECTS electives: 4 ECTS total: 32 22 Curricular

ECTS social sciences: 0 ECTS electives: 4 ECTS total: 32 22 hours: 550
ECTS for student: ECTS social sciences: 0 ECTS electives: 2 ECTS total: 30 20 Hours: 520

YEAR 5, SEMESTER 10

					1	II	Ш										
No	Year	Sem.	Old catalogue number	New catalogue number	Type of the module (Basic/ Directional/ Social sciences)	Mandatory Elective	General academic / Practical	Module	Lectures	Practicals	Seminars	Field exercices	e-learning	ECTS	ECTS_k	Estimated hours for ECTS	Curricular hours
98	5	10	D7	FVM-V-JMSS-10S-D07_19	D	m	GA	Veterinary prevention	45	25		5		5	3	137	75
99	5	10	D23/2	FVM-V-JMSS-10S-D23/2_19	D	m	GA	Hygiene of food of animal origin module 2	15	30				4	2	105	45
100	5	10	D24	FVM-V-JMSS-10S-D24_19	D	m	GA	Milk hygiene	15	15				2	1	56	30
101	5	10	R2	FVM-V-JMSS-10S-R02_19	D	m	GA	Rotation - Farm animal diseases				90		4	3	142	90
102	5	10	R3	FVM-V-JMSS-10S-R03_19	D	m	GA	Rotation - Dog and cat diseases		85				6	3	170	85
103	5	10	R4	FVM-V-JMSS-10S-R04_19	D	m	GA	Rotation - Equine diseases		50		40		4	3	142	90
104	5	10	R1	FVM-V-JMSS-10S-R01_19	D	m	GA	Rotation - Avian diseases		30				2	1	60	
105	5	10	R6	FVM-V-JMSS-10S-R06_19	D	m	GA	Rotation - Laboratory class of parasitology		7.5	7.5			2	1	25	15
								Block I: Small Animal Electives [4 ECTS]									
106	5	10	E23	FVM-V-JMSS-10S-E23_19	D	е	GA	Behavioural medicine of cats and dogs	15		15			2	1	45	30
107	5	10	E15	FVM-V-JMSS-10S-E15_19	D	е	GA	Clinical and laboratory diagnostics in emergency veterinary medicine		5	10			1	1	30	15
108	5	10	E52	FVM-V-JMSS-10S-E52_19	D	е	GA	Differential diagnostics based on laboratory results	15					1	1	30	15
								Block II: Large Animal Electives [4 ECTS]									
109	5	10		FVM-V-JMSS-10S-E81_19	D	е	GA	Behavioural medicine of horses		15				1	1	30	
110	5	10		FVM-V-JMSS-10S-E12_19	D	е	GA	Veterinary of pig herd	2			13		1	1	30	15
111	5	10	E38	FVM-V-JMSS-10S-E38_19	D	е	GA	Veterinary of the racing horse	15			15		2	1	45	30
								Block III: Food Hygiene Electives [4 ECTS]									
112	5	10	E51	FVM-V-JMSS-10S-E51_19	D	е	GA	Management of seafood safety	15					1	1	30	15
113	5	10	E42	FVM-V-JMSS-10S-E42_19	D	е	GA	Management of food and feed safety	15					1	1	30	15
114	5	10	E83	FVM-V-JMSS-10S-E83_19	D	е	GA	Nutraceuticals in farm animals	15					1	1	30	
115	5	10	E17	FVM-V-JMSS-10S-E17_19	D	е	GA	Applied pharmacology of farm animals	15					1	1	30	15

YEAR 5, SEMESTER 10

							III										
No	Year	Sem.	Old catalogue number	New catalogue number	Type of the module (Basic/ Directional/ Social sciences)	Mandatory	General academic / Practical	Module	Lectures	Practicals	Seminars	Field exercices	e-learning	ECTS	ECTS_k	Estimated hours for ECTS	Curricular hours
		·				-		Other Electives [4 ECTS]									
116	5	10	E43	FVM-V-JMSS-10S-E43_19	D	е	GA	Ophthalmology in small animals	3	12				1	1	31	15
117	5	10	E86	FVM-V-JMSS-10S-E86_19	D	е	GA	Breed-related disorders	15					1	1	30	15
118	5	10	E14	FVM-V-JMSS-10S-E14_19	D	е	GA	From symptoms to diagnosis - skin			15			1	1	30	15
119	5	10	E89	FVM-V-JMSS-10S-E89_19	D	е	GA	Veterinary otology	6	9				1	1	30	15
120	5	10	WP4	FVM-V-JMSS-10S-WP4_19	D	sp	GA	Clinical practice module 2 (summer practice)				160		5	0	160	160
121	5	10	WP5	FVM-V-JMSS-10S-WP5_19	D	sp	GA	Veterinary inspection, meat hygiene (summer practice)				80		2	0	85	80

ECTS social sciences:

206 283.5 47.5 403 Sum of hours: 0

hours ECTS for student: ECTS social sciences: 0 **ECTS** electives: 8 ECTS total: 44 Hours: 820

ECTS electives:

16 ECTS total:

52

Curricular

940

31

#### YEAR 6, SEMESTER 11

Ш Type of the module Old General Estimated (Basic/ Mandatory Field Curricular catalogue ECTS k Nο Year Sem. New catalogue number academic / Module Lectures **Practicals** Seminars e-learning ECTS hours for Directional Elective exercices hours Practical ECTS number Social sciences) 6 11 R5 FVM-V-JMSS-11W-R05 19 D m Rotation - Veterinary laboratory diagnostics 15 123 6 11 D30 FVM-V-JMSS-11W-D30 19 30 33 12 D m GΑ Herd health management Block I: Small Animal Electives [9 ECTS] F22 FVM-V-JMSS-11W-E22 19 GA Cardiology diagnostics in small animals 15 124 6 11 D 0 125 E24 FVM-V-JMSS-11W-E24 19 30 30 D GA Small animal bone and joint surgery 6 11 E53 FVM-V-JMSS-11W-E53 19 15 126 6 11 D GA Daily clinical practice 30 15 127 E37 FVM-V-JMSS-11W-E37\_19 D 15 6 11 GΑ linical course of small animal surgery 15 Small animal dermatology 128 6 11 E54 FVM-V-JMSS-11W-E54 19 D GA 9 30 15 129 6 11 E29 FVM-V-JMSS-11W-E29 19 D е GΑ Small animal dentistry 30 15 130 6 11 E36 FVM-V-JMSS-11W-E36 19 GΑ Surgery of genital organs of dogs and cats (solo castration) 15 45 30 е Block II: Large Animal Electives [9 ECTS] 131 6 11 E55 FVM-V-JMSS-11W-E55\_19 D GA 8 15 Equine diseases - clinical cases 30 е E56 16 132 FVM-V-JMSS-11W-E56\_19 30 16 6 11 D е GΑ Common surgical procedures in horses Ultrasound diagnostics of the reproductive tract in farm 133 26 6 11 E31 FVM-V-JMSS-11W-E31 19 D GΑ 45 30 inimals FVM-V-JMSS-11W-E57 19 15 134 11 E57 D е GA Horse dentistry 6 30 135 11 E58 FVM-V-JMSS-11W-E58 19 D е GΑ Horse arthroscopy 30 15 136 11 E76 FVM-V-JMSS-11W-E76 19 D 30 6 е GΑ Hoof management in cattle 137 11 E59 FVM-V-JMSS-11W-E59 19 D Mastitis prevention and treatment in dairy herds 25 45 30 6 е GΑ Block III: Advanced Imaging Electives [3 ECTS] 138 F44 FVM-V-JMSS-11W-E44 19 ם GΔ Veterinary oncology 15 6 11 E39 FVM-V-JMSS-11W-E39\_19 15 139 6 11 D GA Ultrasound diagnostics in companion animals 15 140 E60 FVM-V-JMSS-11W-E60\_19 D GA 15 30 15 6 11 Imaging diagnostics in companion animals Block IV: Advanced Internal Medicine Electives [3 ECTS] Management of life-threatening situations in small animal 141 6 11 E61 FVM-V-JMSS-11W-E61 19 D GΑ 15 30 15 е naesthesia 142 E30 30 15 6 11 FVM-V-JMSS-11W-E30 19 D е GΑ Intensive care of dogs and cats 15 143 6 11 E62 FVM-V-JMSS-11W-E62 19 GA From symptoms to diagnosis - advanced course

No	Year	Sem.	Old catalogue number	New catalogue number	Type of the module (Basic/ Directional/ Social sciences)	Mandatory Elective	academic / Practical		Lectures	Practicals	Seminars	Field exercices	e-learning	ECTS	ECTS_k	Estimated hours for ECTS	Curricular hours
								Other Electives [10 ECTS]									
144	6	11	E4	FVM-V-JMSS-11W-E04_19	D	е	GA	Communication and negotiations skills in veterinary practice	5	10				1	1	25	15
145	6	11	E41	FVM-V-JMSS-11W-E41_19	D	е	GA	Exotic animals medicine	24	6				2	1	45	30
146	6	11	E63	FVM-V-JMSS-11W-E63_19	D	е	GA	Clinical course of exotic animal diseases (ZOO)	9			21		2	1	60	30
147	6	11	E32	FVM-V-JMSS-11W-E32_19	D	е		Management of veterinary practice	7	8				1	1	30	15
148	6	11	E64	FVM-V-JMSS-11W-E64_19	D	е	GA	Introduction to cynology and dog show essentials	12	1	2			1	1	30	15
149	6	11	E34	FVM-V-JMSS-11W-E34_19	D	е	GA	Herd health management in small ruminants	5	10		15		2	1	45	30
150	6	11	E74	FVM-V-JMSS-11W-E74_19	D	е	GA	Clinical anaesthesiology		15				1	1	30	15
151	6	11	E83	FVM-V-JMSS-10S-E83_19	D	е	GA	Nutraceuticals in farm animals	15					1	1	30	15
			·	·			·	Sum of hours:	175	327	47	67	0				· · · · · · · · · · · · · · · · · · ·

Curricular ECTS social sciences: 0 **ECTS** electives: 55 ECTS total: 59 35 1066 hours: ECTS social sciences: 0 46 871

42 ECTS total:

Hours:

**ECTS** electives: Total curricular hours excluding research project: 6511, including research project: 6961

> **Total offered ECTS:** Social sciences: **Electives:** 128 428 15 Max ECTS per student: 385 Social sciences: 15 **Electives:** 105 Min ECTS per student: 360 Social sciences: 12 **Electives:** 80

YEAR 6, SEMESTER 11

Ш

ECTS for student:

No	Year	Sem.	Old catalogue number	New catalogue number	Type of the module (Basic/ Directional/ Social sciences)	Mandatory	General academic / Practical	Module	Lectures	Practicals	Seminars	Field exercices	e-learning	ECTS	ECTS_k	Estimated hours for ECTS	Curricular hours
152	6	11	E66	FVM-V-JMSS-11W-E66_19	В	е	GA	Individual research project, completed with dissertation		450				20	5	450	450
								Sum of hours:	0	450	0	0	0				<u> </u>

Curricular ECTS social sciences: 0 **ECTS** electives: 20 ECTS total: 20 450 hours

#### **LEARNING OUTCOMES MATRIX**

Unit: Faculty of Veterinary Medicine Field of studies: Veterinary Medicine

regulated diseases

Level of study: Long-cycle Master's degree programme

Profile of study: General Academic (GA)

#### KNOWLEDGE

#### Graduate knows and understands:

Basic sciences knows and describes regular morphology of the animal WW NP1 1 1 3 3 3 organism: cells, tissues, organs and systems knows structure, describes and explains functions of the systems of the animal organism (respiratory, WW\_NP2 1 3 3 1 gastrointestinal, cardiovascular, urinary, nervous, locomotion, reproductive, endocrine, immune and skin) describes and interprets development of organs and the WW NP3 1 1 whole organism in relation to the adult organism describes and explains metabolic processes on the 3 WW NP4 3 3 1 3 molecular, cellular, organ and organism levels describes and explains homeostasis, neurohormonal WW NP5 3 1 regulation reproduction, ageing and death describes, explains and interprets rules and mechanisms governing animal health, disease and therapy, from the WW NP6 cellular level, through the organs, organisms, herds to the whole population of animals knows and interprets patophysiological changes in the organs and systems, biological mechanisms (including WW\_NP7 immunological) and pharmacological mechanisms facilitating recovery identifies and describes biology of infectious agents inducing diseases transmitted between animals, animals WW\_NP8 and humans, including mechanisms of the disease transmission and organism defence systems defines and describes genetic mechanisms, identifies WW\_NP9 genetic disorders and knows bases of the genetic 3 engineering defines and describes mechanisms of drug action, their WW\_NP10 fate in the organism and drug-to-drug interactions WW NP11 utilises chemoterapeutics WW\_NP12 prescribes drugs 3 3 WW\_NP13 knows and uses English and Latin medical nomenclature knows and uses Polish language to the effect of 2 3 3 WW NP14 communication with the specialists in the veterinary and related sciences, uses Polish source materials Clinical sciences describes, explains and interprets disorders on the cellular W\_NK1 3 tissue, organ, system and organism levels occurring in the course of the disease describes, explains and interprets mechanisms of the 3 W NK2 3 organ and organism pathologies describes and interprets causes and symptoms of the disease, describes and interprets patomorphological W NK3 changes, uses procedures for therapy and prevention in the particular diseases implements diagnostic (including differential diagnostics) W NK4 and therapeutic procedures carries out clinical evaluation and monitors heard health in W NK5 the intensive production implements official epizootic procedures in case of the law W\_NK6

W_NK7	collects, analyses and correctly interprets clinical data, results of the laboratory tests and other diagnostics techniques																											
W_NK8	indicates and interprets appropriate law regulations, knows rules governing issuing of the verdicts and creates official opinions for the law courts, state, local and veterinary administration																										2	
W_NK9	knows bases of the functioning of state veterinary service, also in the aspect of public health prevention																									T		
		Δ	nin	nal	nro	du	ctio	าท		<u> </u>	<u> </u>											Ш	_			Щ	Щ	Ш
	describes breeds within animal species, describes rules of			Iai	ριο	uu	Ctit	111	Π	T	T	Π				T	Т			1	T		П	$\neg$	1	$\top$	Т	П
W_PZ1	animal husbandry and breeding	3																									3	3
W_PZ2	describes rules for animal selection for breeding, methods of breeding and selection																											3
W_PZ3	describes rules of animal feeding (according to the species specifics), elaborates and analyses diet compositions																										1	
W_PZ4	describes and evaluates conditions for animal welfare																										1	1
W_PZ5	describes and interprets rules of produce economics																						П	$\Box$		I	L	
W_PZ6	describes conditions for appropriate utilisation and disposal of animal by-products and management of waste																						ı					
VV_F20	from animal production																						ı					
	non animal production		Fc	od	hy	gie	ne		-	-								-!	-		-		_					
W_HŻ1	describes and interprets methods of consumers health protection by the appropriate organ responsible for the production of foods of animal origin																											
W_HŻ2	describes, interprets and evaluates conditions of hygiene and technology of production, food safety, also uses appropriate law regulations of the veterinary supervision																											
W_HŻ3	conducts ante-mortem and post-mortem examination of animals	3																						Ī				
W_HŻ4	describes and implies HACCP (Hazard Analysis and Critical Control Points) procedures																									T		
	,			S	KIL	LS																						
		rad																										
U_OUZ1	effectively communicates with clients, veterinary surgeons and employees of the state sanitary control, state and local administration	oasi	ср	rof	ess	ion	al s	skil	ls															1				
U_OUZ2	knows how to listen and explain in the language that is	3					2					3	2					3				1			1	T		1
	understandable and appropriate for the situation formulates clear case studies and knows how to create									<u> </u>												H		$\forall$	1	+	+	Ħ
U_OUZ3	documentation according to the current laws and regulations, in the form understandable for the owner of the animal and clear for other veterinary surgeons																						3					
U_OUZ4	knows how to operate in the interdisciplinary team														T								П	7		T	1	П
U_OUZ5	appropriately interprets responsibility of the veterinary surgeon towards animal, its owner, society and																					2		2				2
U_OUZ6	environment evaluates economical and sociological implications of the veterinary practice																						3	1		$\dagger$	+	П
U_OUZ7	understands the need of the best possible utilisation of professional skills in order to enhance the quality of	3																3	1					2	1	T		1
	veterinary care, animal welfare and public health  Graduate knows how to orga	nic	$\Box$	nd	im	مام	<u></u>	nt	1/0	tori	ina	r., r	\	tice		sch.	din			<u> </u>		Ш	_	_				Ш
	knows self and employer responsibilities and obligations in		e a	IIu		pie	IIIe	111	ve	len	IIIa	' <b>y</b>	лас	·LICE	=,	ICIU	Ium	5. T		T			П	$\overline{}$	Т	$\top$	$\top$	П
U_OUZ8	light of the law and occupational health and safety regulations lcan calculate fees, knows how to issue an official invoice																							_		_		
U_OUZ9	and respects rules of proper financial and medical documentation luses computer systems for effective communication,																									#	_	
U_OUZ10	accumulation, processing, analysis and propagation of information					3																	3					
U_OUZ11	acts within the current standards and ethical obligations																					Ш		2			L	
U_OUZ12	understands the need of continuous education for professional development	1																3				1		1	1			
U_OUZ13	can adapt professional offer to the dynamically changing situation on the work market																					Ц	Ш			1	L	
U_OUZ14	knows his limitations and knows how to use the professional advice and help of the specialists or specialised units in difficult cases	3																					3					
U_OUZ15	uses English and Latin medical nomenclature	3							3						I	Ţ	I	3	_			П	Д	コ	7	Ţ	T	口
U_OUZ16	can communicate in Polish and knows how to use Polish professional source materials	3																3					,					
	The orespional pource materials	acti	ral	nro	of o	ssic	nna	ı I sl	kille	<u> </u>			_						1	1	<u> </u>	ш		L				ш
	pr	ucti	Cai	ρ, ,	JIC.		, u																					_
U_PUZ1	performs veterinary investigation in order to acquire precise information on single animal and group of animals		Cai	PI.	JIE.		7110																					
U_PUZ1	performs veterinary investigation in order to acquire precise information on single animal and group of animals (heard), and their environment handles animals in safe and humane way, and instructs		Cai	P1.	JIE.		-																	<b>-</b>			-	
	performs veterinary investigation in order to acquire precise information on single animal and group of animals (heard), and their environment		Cai		JIE.																					\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\		

U_PUZ1 U_									_		-																
Injuries, internal injuries, heart block, loss of consciousness, chanks Jurns and tissue injuries evaluates nutritional state of the animal and ordains information on progree animal nutrition. Collects and safeguards the biological material, knows the rules of sample transport and basic laboratory analyses, use of sample transport and basic laboratory analyses, analyses.  U_PUZ7  L_PUZ7		performs first aid procedures for all animal species for																				l					
Injuries, internal injuries, heart block, loss of consciousness, chests, burns and tissue injuries evaluates nutritional state of the animal and ordains information on proper animal nutrition collects and safeguards the biological material, knows the collects and safeguards the biological materials according to sample transport and basic laboratory analyses, properly evaluates and interprets results of laboratory analyses, properly evaluates and interprets results of laboratory analyses.  U_PUZ7 implements proper official epizootic procedures in case of the law-regulated diseases and uniques and uses information on registered drugs prescribes and uses drugs and medical materials according to upper solutions, including rules of their safe storage and utilisation uses methods of safe sedation, general and local uses methods for pain evaluation and relief upper unit in the procedures, and uses proper methods of tools sterilisation evaluation and evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedures, and uses proper methods of tools sterilisation professional ethics and proper utilisation of the body carries out patomorphological examination, prepares proper protocol, collects and labels samples and sacetures and used documents and uses documentation of the beard and, in certain cases, the productory of the heard and, in certain cases, the productory of the heard and, in certain cases, the productivity of the heard and, in certain cases, the productivity of the heard and	U PUZ4	•																				l					
evaluates nutritional state of the animal and ordains information on progress animal nutrition collects and safeguards the biological material, knows the running of safeguards the biological material, knows the soft of sample transport and basic laboratory analyses, properly evaluates and interprets results of laboratory analyses or sample transport and basic laboratory analyses, properly evaluates and interprets results of laboratory analyses of sample transport and basic laboratory analyses or sample transport and basic laboratory analyses or soft and others, according to its manuals and health and safety regulations concerning animals and humans implements proper official epizotic procedures in case of the law-regulated diseases or soft the safe sedation, general and local prescribes and uses drugs and medical materials according to current regulations, including rules of their safe storage and utilisation uses methods of safe sedation, general and local uses methods of safe sedation of their safe storage and utilisation or word real results and methods for pain evaluation and relief uses the safe sedation of the diagnosed disease.  U_PUZ13 implements rules of aseptic and antiseptic surgery procedures, and uses proper methods of tools sterilisation or service of the safe and antiseptic surgery procedures, and uses proper methods of tools sterilisation or services of the safe and antiseptic surgery procedure according to rules and obligations of professional ethics and proper utilisation of the body professional ethics and proper utilisation of the body professional ethics and proper utilisation of the body professional ethics and proper utilisa																						l					
U_PUZ10 Information on proper animal nutrition collects and safeguards the biological material, knows the rules of sample transport and basic laboratory analyses, properly evaluates and interprets results of laboratory analyses, properly evaluates and interprets results of laboratory analyses uses diagnostic apparatuses including x-ray, ultrasound and others, according to its manuals and health and safety regulations concerning animals and humans implements proper official epizootic procedures in case of the understanding the un					_		_	_	4		_	4	_			_	4	_	_	<u> </u>		Н		_	_		
U_PUZ10 U_PUZ11 U_PUZ11 U_PUZ11 U_PUZ11 U_PUZ12 Implements rules of sample transport and basic laboratory analyses, regulations concerning animals and health and safety regulations concerning animals and health and safety regulations concerning animals and health and safety regulations concerning animals and humans U_PUZ27 Implements proper official epizootic procedures in case of the law-regulated diseases U_PUZ39 Implements proper official epizootic procedures in case of the law-regulated diseases U_PUZ39 Implements grupared diseases U_PUZ30 Implements grupared diseases U_PUZ10 Independent proper official epizootic procedures in case of the law-regulated diseases U_PUZ31 Implements grupared diseases U_PUZ310 Implements grupared diseases U_PUZ311 Implements grupared diseases U_PUZ311 Implements grupared diseases U_PUZ312 Implements grupared diseases Implements grupared grupar	U PUZ5																					l		2			
rules of sample transport and basic laboratory analyses, properly evaluates and interprets results of laboratory analyses used diagnostic apparatuses including x-ray, ultrasound used divers, according to its manuals and health and safety regulations concerning animals and humans implements proper official epizootic procedures in case of the unregulated diseases upgrates and uses information on registered drugs prescribes and uses drugs and medical materials according to current regulations, including rules of their safe storage and utilisation uses methods of safe sedation, general and local anaesthesia, and methods for pain evaluation and relief upper procedures, and uses proper methods of tools sterilisation upper procedures, and uses proper methods of sterilisation evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body carries out patomorphological examination, prepares proper protocol, collects and labels samples and segurates then for transport performs ante-mortem and post-mortem examination and examination of the products of animal origin upper protocol, collects and labels samples and segurates then for products of animal origin upper protocol, collects and labels samples and segurates the products of animal origin upper protocol, collects and labels samples and segurates the products of animal origin upper protocol, collects and labels samples and segurates the productivity of the heard upper upper protocol, collects and labels samples and segurates the productivity of the heard upper upper protocol, collects and labels samples and segurates the productivity of the heard upper upper upper protocol, collects and labels samples and segurates the productivity of the heard upper uppe							_		_		4	_	_			_	_	4	4	<u> </u>		ш		_	_	4	Ш
U_PUZ12  U_PUZ13  Implements proper decorate and interprets results of laboratory analyses and others, according to its manuals and health and safety regulations concerning animals and humans implements proper official epizootic procedures in case of the law-regulated diseases  U_PUZ9 acquires and uses information on registered drugs prescribes and uses drugs and medical materials according to current regulations, including rules of their safe storage and utilisation  U_PUZ10 uses methods of safe sedation, general and local anaesthesia, and methods for pain evaluation and relief anaesthesia, and methods for pain evaluation and relief anaesthesia, and methods for pain evaluation and relief procedures, and uses proper methods of tools sterilisation evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedures, and uses proper methods of tools sterilisation evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedures according to rules and obligations of professional ethics and proper utilisation of the body  U_PUZ15 carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport performs ante-mortem and post-mortem examination and examination of the products of animal origin documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard and, in certain cases, the productivity of the heard and, in certain cases, the productivity of the heard when the proper protocol of the disease agents in veterinary facilities and the environment and accumulation of the disease agents in veterinary facilities and the environment																						i l					
properly evaluates and interprets results of laboratory analyses  uses diagnostic apparatuses including x-ray, ultrasound and others, according to its manuals and health and safety regulations concerning animals and humans  U_PUZB implements proper official epizootic procedures in case of the law-regulated diseases  U_PUZB prescribes and uses drugs and medical materials according prescribes and uses drugs and medical materials according to current regulations, including rules of their safe storage and utilisation uses methods of safe sedation, general and local anaesthesia, and methods for pain evaluation and relief  U_PUZ11 choses the treatment adequate for the diagnosed disease  U_PUZ12 choses the treatment adequate for the diagnosed disease  U_PUZ13 implements rules of aseptic and antiseptic surgery procedures, and uses proper methods of tools sterilisation of procedures according to rules and obligations of professional ethics and proper utilisation of the body  u_PUZ15 professional ethics and proper utilisation of the body  carries out patomorphological examination, prepares professional ethics and proper protocol, collects and labels samples and safeguards them for transport performs ante-mortem and post-mortem examination and examination of the products of animal origin  u_PUZ16 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard and, in certain cases, the productivity of the heard and, in certain cases, the productivity of the heard the evaluation of the disease agents in veterinary facilities and the environment.	U PUZ6	, , ,							,											3		i l					
uses diagnostic apparatuses including x-ray, ultrasound and others, according to its manuals and health and safety regulations concerning animals and humans implements proper official epizootic procedures in case of the law-regulated diseases  U_PUZ9 acquires and uses information on registered drugs prescribes and uses drugs and medical materials according to current regulations, including rules of their safe storage and utilisation  U_PUZ11 uses methods of safe sedation, general and local anaesthesia, and methods for pain evaluation and relief  U_PUZ12 choses the treatment adequate for the diagnosed disease  U_PUZ13 implements rules of aseptic and antiseptic surgery procedures, and uses proper methods of tools sterilisation  U_PUZ13 evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport performs ante-mortem and post-mortem examination and examination of the products of animal origin  U_PUZ16 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard prepares the preventive scheme according to the species specifics  U_PUZ18 prepares the preventive scheme according to the species specifics in the environment.		properly evaluates and interprets results of laboratory							-											ľ		i l					
U_PUZ12 and others, according to its manuals and health and safety regulations concerning animals and humans  U_PUZ2 sequitions concerning animals and humans  U_PUZ3 acquires and uses information on registered drugs prescribes and uses information on registered drugs prescribes and uses furgs and medical materials according to current regulations, including rules of their safe storage and utilisation  U_PUZ10 to current regulations, including rules of their safe storage and utilisation  U_PUZ11 uses methods of safe sedation, general and local anaesthesia, and methods for pain evaluation and relief  U_PUZ12 choses the treatment adequate for the diagnosed disease  U_PUZ13 implements rules of aseptic and antiseptic surgery procedures, and uses proper methods of tools sterilisation  U_PUZ14 evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport errorms ante-mortem and post-mortem examination and examination of the products of animal origin  U_PUZ16 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18 prepares the preventive scheme according to the species specifics  U_PUZ19 the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment		analyses					_	_	_		_	4				_	_	4	4	<u> </u>		Н			_		Ш
U_PUZ12 and others, according to its manuals and health and safety regulations concerning animals and humans  U_PUZ2 sequitions concerning animals and humans  U_PUZ3 acquires and uses information on registered drugs prescribes and uses information on registered drugs prescribes and uses furgs and medical materials according to current regulations, including rules of their safe storage and utilisation  U_PUZ10 to current regulations, including rules of their safe storage and utilisation  U_PUZ11 uses methods of safe sedation, general and local anaesthesia, and methods for pain evaluation and relief  U_PUZ12 choses the treatment adequate for the diagnosed disease  U_PUZ13 implements rules of aseptic and antiseptic surgery procedures, and uses proper methods of tools sterilisation  U_PUZ14 evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport errorms ante-mortem and post-mortem examination and examination of the products of animal origin  U_PUZ16 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18 prepares the preventive scheme according to the species specifics  U_PUZ19 the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment		uses diagnostic apparatuses including x-ray, ultrasound																				l					
regulations concerning animals and humans  U_PUZB implements proper official epizootic procedures in case of the law-regulated diseases  U_PUZ9 acquires and uses information on registered drugs prescribes and uses drugs and medical materials according to current regulations, including rules of their safe storage and utilisation  U_PUZ10 uses methods of safe sedation, general and local anaesthesia, and methods for pain evaluation and relief  U_PUZ12 choses the treatment adequate for the diagnosed disease  U_PUZ13 implements rules of aseptic and antiseptic surgery procedures, and uses proper methods of tools sterilisation  U_PUZ13 evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body  U_PUZ15 proper protocol, collects and labels samples and safeguards them for transport errorms ante-mortem and post-mortem examination and examination of the products of animal origin  U_PUZ16 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18 prepares the preventive scheme according to the species specifics  U_PUZ18 repares the preventive scheme according to the species specifics  U_PUZ19 repares the preventive scheme according to the species specifics  U_PUZ19 repares the preventive scheme according to the species specifics  U_PUZ19 repares the preventive scheme according to the species specifics  U_PUZ19 repares the preventive scheme according to the species specifics  U_PUZ19 repares the preventive scheme according to the species specifics  U_PUZ19 repares the preventive scheme according to the species specifics  U_PUZ19 repares the preventive scheme according to the species specifics  U_PUZ19 repares the preventive scheme according to the species specifics  U_PUZ19 repares the preventive scheme according to the species specifics  U_PUZ19 repares the preventive scheme according to the species specifics  U_PUZ1	U PUZ7	9 11							2													3					
U_PUZ13 implements proper official epizootic procedures in case of the law-regulated diseases U_PUZ9 acquires and uses information on registered drugs prescribes and uses drugs and medical materials according to current regulations, including rules of their safe storage and utilisation U_PUZ11 uses methods of safe sedation, general and local anaesthesia, and methods for pain evaluation and relief U_PUZ12 choses the treatment adequate for the diagnosed disease U_PUZ13 implements rules of aseptic and antiseptic surgery procedures, and uses proper methods of tools sterilisation vower of the animal and carries out the euthanasia procedures, and uses proper methods of tools sterilisation owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body U_PUZ15 proper protocol, collects and labels samples and safeguards them for transport performs ante-mortem and post-mortem examination and examination of the products of animal origin U_PUZ18 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard U_PUZ18 prepares the preventive scheme according to the species specifics Specifics U_PUZ19 the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment	_	regulations concerning animals and humans																				ΙÌ					
U_PU212 choses the treatment adequate for the diagnosed disease U_PU212 implements rules of aseptic and antiseptic surgery procedures, and uses proper methods of tools sterilisation U_PU213 implements rules of aseptic and antiseptic surgery procedures, and uses proper methods of tools sterilisation U_PU214 over of the animal and carries out the euthanasia procedure according to rules and obligations of safeguards them for transport U_PU215 performs ante-mortem and post-mortem examination and examination of the products of animal origin documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard U_PU218 prepares the preventive scheme according to the species specifics u_PU219 the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment		<u> </u>				_	4	_	4		+	+		-		_	_	4	4	-		$\vdash$	_	_	_		Ш
U_PUZ12 choses the treatment adequate for the diagnosed disease U_PUZ13 implements rules of aseptic and antiseptic surgery procedures, and uses proper methods of tools sterilisation U_PUZ14 choses the treatment adequate for the diagnosed disease U_PUZ15 choses the treatment adequate for the diagnosed disease U_PUZ16 choses the treatment adequate for the diagnosed disease U_PUZ17 procedures, and uses proper methods of tools sterilisation  U_PUZ18 choses the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body  carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport  U_PUZ17 performs ante-mortem and post-mortem examination and examination of the products of animal origin documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18 prepares the preventive scheme according to the species specifics  U_PUZ19 the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment	U PUZ8							3														l					
U_PUZ11 choses the treatment adequate for the diagnosed disease  U_PUZ12 choses the treatment adequate for the diagnosed disease  U_PUZ13 implements rules of aseptic and antiseptic surgery procedures, and uses proper methods of tools sterilisation  U_PUZ14 choses the treatment adequate for the diagnosed disease  U_PUZ15 choses the treatment adequate for the diagnosed disease  U_PUZ16 evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body  U_PUZ15 carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards then for transport  U_PUZ16 evamination of the products of animal origin documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ17 the prepares the preventive scheme according to the species specifics  y_PuZ18 prepares the preventive scheme according to the species specifics the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment	_				_	_	_	-	4		_	+	-	1		_	_	+	+	<u> </u>	H	Н	_	_	_		$\vdash$
U_PUZ10 to current regulations, including rules of their safe storage and utilisation  U_PUZ11 uses methods of safe sedation, general and local anaesthesia, and methods for pain evaluation and relief  U_PUZ12 choses the treatment adequate for the diagnosed disease  U_PUZ13 implements rules of aseptic and antiseptic surgery procedures, and uses proper methods of tools sterilisation  evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body  carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport  U_PUZ15 performs ante-mortem and post-mortem examination and examination of the products of animal origin  U_PUZ17 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18 prepares the preventive scheme according to the species specifics  u_PUZ19 the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment	U_PUZ9			Ш	]	Щ		_	_		_		1	Ш	Ш		_	_		<u> </u>	Ш	Ш				1	Ш
u_PuZ11 uses methods of safe sedation, general and local anaesthesia, and methods for pain evaluation and relief  U_PuZ12 choses the treatment adequate for the diagnosed disease  U_PuZ13 procedures, and uses proper methods of tools sterilisation  evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body  carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport  U_PuZ15 performs ante-mortem and post-mortem examination and examination of the products of animal origin  U_PuZ17 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PuZ18 prepares the preventive scheme according to the species specifics evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment																						l					
U_PUZ11 uses methods of safe sedation, general and local anaesthesia, and methods for pain evaluation and relief  U_PUZ12 choses the treatment adequate for the diagnosed disease  U_PUZ13 implements rules of aseptic and antiseptic surgery procedures, and uses proper methods of tools sterilisation  U_PUZ14 evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body  carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport  U_PUZ15 performs ante-mortem and post-mortem examination and examination of the products of animal origin  U_PUZ17 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18 prepares the preventive scheme according to the species specifics evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment	U_PUZ10																					l					
U_PUZ12 choses the treatment adequate for the diagnosed disease  U_PUZ13 implements rules of aseptic and antiseptic surgery procedures, and uses proper methods of tools sterilisation  U_PUZ14 evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body  U_PUZ15 carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport performs ante-mortem and post-mortem examination and examination of the products of animal origin  U_PUZ16 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard prepares the preventive scheme according to the species specifics  evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment		and utilisation			_		_	_	_			_				_	4	_		<u> </u>		Ш					
U_PUZ12 choses the treatment adequate for the diagnosed disease  U_PUZ13 implements rules of aseptic and antiseptic surgery procedures, and uses proper methods of tools sterilisation  U_PUZ14 evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body  U_PUZ15 carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport performs ante-mortem and post-mortem examination and examination of the products of animal origin  U_PUZ16 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard prepares the preventive scheme according to the species specifics  evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment		uses methods of safe sedation, general and local																				l					
U_PUZ12 choses the treatment adequate for the diagnosed disease  U_PUZ13 procedures, and uses proper methods of tools sterilisation  U_PUZ14 evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body  U_PUZ15 carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport  U_PUZ16 examination of the products of animal origin  U_PUZ17 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18 prepares the preventive scheme according to the species specifics  evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment	U_PUZ11	. •																				l					
U_PUZ13 implements rules of aseptic and antiseptic surgery procedures, and uses proper methods of tools sterilisation  U_PUZ14 evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body  Carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport  U_PUZ16 examination of the products of animal origin  U_PUZ17 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18 prepares the preventive scheme according to the species specifics evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment		F			_	_	4	_	4	4	+	+	+	-		_	+	+	+	₩	H	Н	_	_	-	-	Ш
procedures, and uses proper methods of tools sterilisation  evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body  Carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport performs ante-mortem and post-mortem examination and examination of the products of animal origin  U_PUZ16  U_PUZ17  documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18  prepares the preventive scheme according to the species specifics  evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment	U_PUZ12	choses the treatment adequate for the diagnosed disease																				l					
procedures, and uses proper methods of tools sterilisation  evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body  U_PUZ15  u_PUZ15  u_PUZ16  u_PUZ16  carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport performs ante-mortem and post-mortem examination and examination of the products of animal origin  u_PUZ16  u_PUZ17  documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  u_PUZ18  prepares the preventive scheme according to the species specifics  evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment					_	-	$\dashv$	+	+	+	+	+	╁	$\vdash$		$\dashv$	+	+	+	╁	H	$\vdash$	-	_	+	╁	+
evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body  U_PUZ15  U_PUZ15  U_PUZ16  U_PUZ16  D_PUZ17  documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18  prepares the preventive scheme according to the species specifics evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment	II PII713																					l					
owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body  Carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport  U_PUZ16  PUZ16  U_PUZ17  documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18  prepares the preventive scheme according to the species specifics evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment	0_1 0213	procedures, and uses proper methods of tools sterilisation																				l					
owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body  Carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport  U_PUZ16  PUZ16  U_PUZ17  documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18  prepares the preventive scheme according to the species specifics evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment							1		T		$^{+}$	T				1	$^{\dagger}$	T				П					H
procedure according to rules and obligations of professional ethics and proper utilisation of the body  carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport performs ante-mortem and post-mortem examination and examination of the products of animal origin  U_PUZ17 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18 prepares the preventive scheme according to the species specifics  evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment																						l					
professional ethics and proper utilisation of the body  Carries out patomorphological examination, prepares  U_PUZ15  U_PUZ16  Porforms ante-mortem and post-mortem examination and examination of the products of animal origin  U_PUZ17  documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18  prepares the preventive scheme according to the species specifics  evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment	U PUZ14																					l					
carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport performs ante-mortem and post-mortem examination and examination of the products of animal origin  U_PUZ17 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18 prepares the preventive scheme according to the species specifics evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment	_																					i l					
U_PUZ15 proper protocol, collects and labels samples and safeguards them for transport  U_PUZ16 performs ante-mortem and post-mortem examination and examination of the products of animal origin  U_PUZ17 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18 prepares the preventive scheme according to the species specifics  evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment		professional ethics and proper utilisation of the body																				l					
Safeguards them for transport  U_PUZ16 performs ante-mortem and post-mortem examination and examination of the products of animal origin  U_PUZ17 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18 prepares the preventive scheme according to the species specifics  evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment		carries out patomorphological examination, prepares					T		T													П					П
U_PUZ16 performs ante-mortem and post-mortem examination and examination of the products of animal origin  U_PUZ17 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18 prepares the preventive scheme according to the species specifics  evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment	U_PUZ15	proper protocol, collects and labels samples and																				l					
U_PUZ17 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard prepares the preventive scheme according to the species specifics evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment		safeguards them for transport																				Ш					
examination of the products of animal origin  U_PUZ17 documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard  U_PUZ18 prepares the preventive scheme according to the species specifics  evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment	II DUZ16	performs ante-mortem and post-mortem examination and																									
U_PUZ19 and, in certain cases, the productivity of the heard  U_PUZ18 prepares the preventive scheme according to the species specifics evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment	0_P0216	examination of the products of animal origin																				Ш					
U_PUZ19 and, in certain cases, the productivity of the heard  U_PUZ18 prepares the preventive scheme according to the species specifics evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment		documents and uses documentation of the health, welfare																				l					
U_PUZ18 prepares the preventive scheme according to the species specifics evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment	U_PUZ17	•					J															i I					
U_PUZ19 specifics evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment		, , ,			_		_	_	_			_				_	4	_		<u> </u>		Ш					
U_PUZ19 evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment	U PUZ18						J															i I					
the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment				Ш		L	_	_	4	_	4	4	1			_	_	_		<u> </u>	Н	Н	_	_	_	1	Ш
U_PUZ19   accumulation of the disease agents in veterinary facilities							J															ıl					
and the environment	U PUZ19	, ,					J															i I					
		,					J															ıl					
			L	Ш		Ш		L		L										<u> </u>	Ш	Ш					Ш

## PERSONAL COMPETENCES

#### Graduate:

K KP1	takes responsibility for his decisions concerning humans																									
	and animals																								1	1
K_KP2	observes the ethical rules and obligations											2										3				
K KP3	shows tolerance to beliefs and behaviour influenced by											3										2				
K_KI 3	different sociological and cultural background											J										_			⊥	L.
K KP4	shows the competence in solving of the conflicts and	1															3									
K_KF4	pliability in the reactions for sociological changes																3								⊥	┸
K KP5	can critically evaluate personal actions and actions of	1								1		1					3							1		
1.2.1.1.3	others to improve proposed actions	_								•		_					٦	_				_		⊥∸	4	퇶
K KP6	developed a habit of constantly updating his knowledge	3													3		3									
	and skills														,		_							丄	4	4
K_KP7	knows his limitations	3															3								⊥	╙
K_KP8	considers wellbeing of his patient as a topmost priority																									
	can cooperate with specialists of other professions for the																	_				-		+	+	+
K_KP9	protection of public health																				3					
K KP10	can operate under stress and duress				_								1	+	-	-	_	_	1			7	+	+	+	+
_										1		1						_				-		1	+	+
K_KP11	can organise the work of a team									1		1		_				_				_	_		+	+
K_KP12	understands the need to engage in the operations of																					3				
	professional and territorial organisations understands the consequences of his decisions, especially				-								-		_	_	-	_	-			_	_	+	+	+
K_KP13																				2			1			
	those influencing natural environment knows basic laws and regulations governing intellectual				-								-		_	_	-	_	-			_	_	+	+	+
K_KP14		3							3								3					J				
	property has knowledge sufficient for further study in the course of	$\vdash$			-						Н		-	+	-	-	-	-	-			+	+	+	+	+
Inne 1	continuity of the subjects	3					1					1					1								1	-
Inne2	has other knowledge and skills	3		H						1	1	1	3	+	3	3	1		1			-		+	. 2	1
IIIIez	nas other knowledge and skills	3	Ш	Ш		Ш		Ш		1	Т	1	3	_	3	3	Τ	_	Т			_		ᅶ	-14	<u>⊥</u> ⊥

## **LEARNING OUTCOMES MATRIX**

Unit: Faculty of Veterinary Medicine Field of studies: Veterinary Medicine

Level of study: Long-cycle Master's degree programme

Profile of study: General Academic (GA)

											1od Yea										$\exists$
Effect symbol	Directional effects	Biochemistry Module 2	Animal physiology	Animal husbandry and breeding	Technologies in animal production	Ethology	Veterinary economics	Veterinary epidemiology	Comparative anatomy	Polish language Module 2	Veterinary microbiology Module 1	Medical botany	Animal physiology Module 2	Veterinary microbiology Module 2	Animal nutrition and feeding	Polish language Module 3	Immunology	Topographic anatomy	Physiology of exercise	Principles of animal handling	Husbandry practice (summer practice)

#### KNOWLEDGE

#### Graduate knows and understands:

	Basic s																		
	Basic s	cier	nce	S															
WW NP1	knows and describes regular morphology of the animal organism: cells, tissues, organs and systems						3								2	3			
WW_NP2	knows structure, describes and explains functions of the systems of the animal organism (respiratory, gastrointestinal, cardiovascular, urinary, nervous, locomotion, reproductive, endocrine, immune and skin)		3				3				3				2	3	3		
WWW NES	describes and interprets development of organs and the whole organism in relation to the adult organism																		
WW NP4	describes and explains metabolic processes on the molecular, cellular, organ and organism levels	3	2				3				2					3			
WW NP5	describes and explains homeostasis, neurohormonal regulation reproduction, ageing and death		2		3		3				2					3	3		
WW_NP6	describes, explains and interprets rules and mechanisms governing animal health, disease and therapy, from the cellular level, through the organs, organisms, herds to the whole population of animals		2		3				3			3			2		2		3
WW_NP7	knows and interprets patophysiological changes in the organs and systems, biological mechanisms (including immunological) and pharmacological mechanisms facilitating recovery								3			3			2		2		
WW_NP8	identifies and describes biology of infectious agents inducing diseases transmitted between animals, animals and humans, including mechanisms of the disease transmission and organism defence systems								3			3							
WW_NP9	defines and describes genetic mechanisms, identifies genetic disorders and knows bases of the genetic engineering																		
WW NETO	defines and describes mechanisms of drug action, their fate in the organism and drug-to-drug interactions									2									
WW NP11	utilises chemoterapeutics																		
	prescribes drugs																		<u> </u>
VV VV_INP1Z	prescribes drugs					_													-
_	knows and uses English and Latin medical nomenclature knows and uses Polish language to the effect of						3								2	3	2		
WW_NP14	communication with the specialists in the veterinary and related sciences, uses Polish source materials						2	3						3	2	3			1
	Clinical	scie	ence	es															
	describes, explains and interprets disorders on the cellular, tissue, organ, system and organism levels occurring in the						3									3			
	course of the disease describes, explains and interprets mechanisms of the						3			H					2	3			-
W_NK3	organ and organism pathologies describes and interprets causes and symptoms of the disease, describes and interprets patomorphological changes, uses procedures for therapy and prevention in						3						3			3			
W NK4	the particular diseases implements diagnostic (including differential diagnostics)					3				2									
W NK5	and therapeutic procedures carries out clinical evaluation and monitors heard health in																	2	
_	the intensive production implements official epizootic procedures in case of the law- regulated diseases					3			3										

W.NPS  Wilson																				
multiple and interprets appropriate law regulations, which is a control of control opinions for the law courts, tasks, local and exteriors administrations.  M. NASI also in the appace of public health revertion of the appace of public health revertion.  M. PSI describes breeds within animal species, describes rules of law the stage of public health revertion.  M. PSI describes breeds within animal species, describes rules of law the stage of public health revertion.  M. PSI describes breeds within animal species, describes rules of law the stage of public health revertion of law that the stage of public health revertion of law that the stage of public health revertion of law that the stage of public health revertion of law that the stage of public health revertion and describes rules of animal freeding foccording to the species of describes and evaluates conditions for animal welfare a second or stage of public recommination and describes and evaluates conditions for animal welfare a second or stage of public recommination and describes and interprets rules of products and management of waste from stage and interprets methods of consumers health from stage and interprets methods of consumers health products on the stage and interprets methods of consumers health products on the stage and interprets methods of consumers health products on the stage and revolutions of the vertical rules of the stage and revolutions of the vertical rules of the products of the vertical rules of the products of the vertical rules of the products of the vertical rules and rules of the vertical r	W_NK7	,							3		3	3				2				
Sections continued to the law counts, state, local and sections continued to the law counts, state, local and sections continued to the law counts of the state veterinary service.   2	W NK8	indicates and interprets appropriate law regulations, knows rules governing issuing of the verdicts and creates																		
also in the aspect of public health prevention  W_P21 dismain husbandry and bready describes rules for animal species, describes rules of animal species, describes and evaluates conditions for animal species of produce economics, describes and interprets rules of produce economics describes and interprets rules of produce economics describes and interprets rules of produce economics of describes and interprets rules of produce economics of describes and interprets methods of consumers health from animal production.  Production of animal species of produce accommiss of the species of animal species of a		veterinary administration																		4
w_rez administration of describes breeds within animal species, describes rules of describes rules for animal selection for breeding, methods of breeding and selection of breeding and selection of describes rules for animal selection for breeding, methods of breeding and selection of describes rules of animal feeding (according to the species species species species) and animal species, species species species of the describes rules of animal several species	W_NK9	also in the aspect of public health prevention						2			2	2								
w_P22   describes and interprets network of animal vendors of production for prod			roc	luct	ion						_		-	1	1			1	1	_
of breeding and selection  W_P23  specifical, elaborates and analyses det compositions  W_P34  describes and evolutates conditions for animal welfare  W_P35  Septimization of a similar by products and management of waste from animal and discribes conditions for appropriate unification and specifical animals by products and management of waste from animal and discribes and interports to produce common from the products of animals by products and management of waste from animal animals and discribes and interports methods of consumers health protection by the appropriate unification and describes and interports methods of consumers health protection by the appropriate unification and describes and interports methods of consumers health protection by the appropriate of products of methods of consumers health protection by the appropriate of products of methods of consumers health protection by the appropriate of products of methods of consumers health protection by the appropriate of products of methods of consumers health protection by the appropriate of the consumers health protection by the appropriate of the describes and implies HACCP (Hazard Analysis and Critical Control Points) procedures  *******  **********  ***********  ****	W_PZ1	animal husbandry and breeding																		
W_P24 describes and integrees rules of produce conomics describes conditions for animal well are well as a secrification of the production of food of animal proproduction of food of animal proproduction of food of animal proproduction of food of animal production of food of animal production of food of animal origin of the production of food of animal origin origin and technology of production, food sifety, also uses appropriate law regulations of the veterinary suspension or the production of foods of animal origin or the production of foods of animal origin origin and technology of production, food sifety, also uses appropriate law regulations of the veterinary suspension or the production of foods of animals origin original origina	W_PZ2	of breeding and selection																		3
W_P25 describes and interprets rules of produce economics describes conditions for appropriate utilisation and describes conditions for appropriate utilisation and describes conditions for appropriate utilisation and the production for the fingline of similar by products and management of waste from animal productson for the fingline of similar by products and management of waste from animal productson for the fingline of similar by products and management of waste from animal products on the final products and technology of production, food safety, also uses appropriate law regulations of the veterinary supervision and technology of production, food safety, also uses appropriate law regulations of the veterinary supervision and technology of production, food safety, also uses appropriate law regulations of the veterinary supervision describes and implice HACCP (Hazard Analysis and Critical Control Points) procedures  **SIKUS**  **Graduate knows how to:*  **Basic professional skills**  **U_OUZ3**  **Indicate shows how to:*  **Basic professional skills**  **U_OUZ3**  **Indicate shows how to:*  **Basic professional skills**  **U_OUZ3**  **Indicate shows how to:*  **Indicate shows how to:*  **Basic professional skills**  **U_OUZ3**  **Indicate shows how to:*  **Indicate shows how to:*	W_PZ3														3					3
describes conditions for appropriate utilisation and waste from animal production for appropriate programment of the production of food of animal proproducts and management of waste from animal production of food of animal proproducts and management of waste from animal production of foods of animal programment of foods of animal production of foods of animal origin describes and interprets methods of consumers health with the production of foods of animal origin describes, interprets and evaluates conditions of hygiene and escribes, interprets and evaluates conditions of hygiene appropriate law regulations of the veterinary supervision appropriate law regulations of the veterinary supervision animals.  W_H22  W_H23  W_H24  Control Points) procedures  SKILLS  Graduate knows how to:  Gredit animal and clear of the situation of the veterinary supervision and employees of the state animal and clear of the situation of the current laws and regulations, in the form undestradable for the owner of the animal and clear for other veterinary sugeons and the situation of the animal and clear for other veterinary sugeons  U_UOUZ5  U_UOUZ5  U_UOUZ6  U_UOUZ6  U_UOUZ6  Indicate the control was and animal and clear for other veterinary sugeons and the situation of the current laws and regulation in the language that is understandable for the owner of the animal and clear for other veterinary sugeons  U_UOUZ5  U_UOUZ6  U_UUZ7  U_UUZ7  U_UUZ7  U_UUZ8  Indicate the control was animal and clear for other veterinary sugeons  I_UUZ7  I_UU	W_PZ4	describes and evaluates conditions for animal welfare				3														
### disposal of animal by-products and management of waste from animal production of Food hyglene    Food hyglene   Food hygle	W_PZ5	·					3						-							3
describes and interprets methods of consumers health protection by the appropriate organ responsible for the production of froads of animal origin describes, interprets and evaluates conditions of hygien and etherhology of production, food safety, sits ourse appropriate law regulations of the veterinary supervision which an animal origin describes and implies HACCP (Hazard Analysis and Critical describes and included Analysis and Critical describes an	W_PZ6	disposal of animal by-products and management of waste from animal production				2														
w_H23 and technology of production, food safety, also uses a appropriate law regulations of the veterinary supervision	W_HŻ1	describes and interprets methods of consumers health protection by the appropriate organ responsible for the									2	2		3						
W_H24 almimals W_H24 control Points) procedures  SKILLS  Graduate knows how to:	W_HŻ2	and technology of production, food safety, also uses																		
SKILLS  Graduate knows how to:  Basic professional skills  Graduate knows how to:  Basic professional skills  and employees of the state sanitary control, state and local administration knows how to listen and explain in the language that is understandable and appropriate for the situation formulates clear case studies and knows how to create documentation according to the current laws and regulations, in the form understandable for the owner of the animal and clear for other veterinary surgeons  U_OUZ3 regulations, in the form understandable for the owner of the animal and clear for other veterinary surgeons  U_OUZ4 knows how to operate in the interdisciplinary team appropriately interprets responsibility of the veterinary surgeons  U_OUZ5 support to the current laws and review appropriately interprets responsibility of the veterinary surgeons evaluate seconomical and sociological implications of the evaluates economical and sociological implications of the eveterinary practice understands the need of the best possible utilisation of eveterinary practice.  U_OUZ5 reterinary practice.  U_OUZ6 reterinary practice of the best possible utilisation of veterinary care, animal wedfare and public health  Graduate knows how to organise and implement veterinary practice, including:  Knows self and employer responsibilities and obligations in law of the law and occupational health and safety regulations.  Can calculate fees, knows how to issue an official invoice and respects rules of proper financial and medical documentation uses computer systems for effective communication, uses computer systems for effective communication, acts within the current standards and ethical obligations information acts within the current standards and ethical obligations information acts within the current standards and ethical obligations information information infor	W_HŻ3	I -																		
effectively communicates with clients, veterinary surgeons and employere of the state sanitary control, state and local administration with state and explain in the language that is understandable and appropriate for the situation formulates clear case studies and knows how to create documentation according to the current laws and regulations, in the form understandable for the owner of the animal and clear for other veterinary surgeons which were animal and clear for other veterinary surgeons which were animal and clear for other veterinary surgeons which were animal and clear for other veterinary surgeons which were animal and clear for other veterinary surgeons which were animal and clear for other veterinary surgeons which were animal and clear for other veterinary surgeons which were animal and sociological implications of the evaluates economical and sociological implications of the veterinary practice understands the need of the best possible utilisation of the veterinary care, animal welfare and public health which were processional skills in order to enhance the quality of veterinary care, animal welfare and public health were processional skills or the law and occupational health and safety regulations can calculate fees, knows how to organise and implement veterinary practice, including:  Which were supported to the state and public health were supported by the support of the supported by the support of the supp	W_HŻ4																			
U_OUZ1 and employees of the state sanitary control, state and local administration with clients, veterinary surgeons   1		Sk	ILL:	S																
effectively communicates with clients, veterinary surgeons and employees of the state sanitary control, state and local administration who was now to listen and explain in the language that is understandable and appropriate for the situation formulates clear case studies and knows how to create documentation according to the current laws and regulations, in the form understandable for the owner of the animal and clear for other veterinary surgeons   U_OUZ4   Individual content of the animal and clear for other veterinary surgeons   U_OUZ5   Individual content of the animal and clear for other veterinary surgeons   U_OUZ6   Individual content of the animal and clear for other veterinary surgeons   U_OUZ6   Individual content of the animal and clear for other veterinary surgeons   U_OUZ6   Individual content of the serior of the veterinary surgeon towards animal, its owner, society and surject on the serior of the serior of the veterinary practice   U_OUZ7   Individual content of the best possible utilisation of veterinary practice   U_OUZ7   Individual content of the best possible utilisation of veterinary practice   U_OUZ7   Individual content of the law and occupational health and safety regulations   U_OUZ8   Individual content of the law and occupational health and safety   U_OUZ8   Individual content of the law and occupational health and safety   U_OUZ9   Individual content of the law and occupational health and safety   U_OUZ9   Individual content of the law and occupational health and safety   U_OUZ9   Individual content of the law and occupational health and safety   U_OUZ9   Individual content of the law and occupational health and safety   U_OUZ9   Individual content of the law and occupational health and safety   U_OUZ9   Individual content of the law and occupational health and safety   U_OUZ9   Individual content of the law and occupational health and safety   U_OUZ9   Individual content of the law and occupational health and safety   U_OUZ9   Individual content of the law and occupational health																				
U_OUZ1 and employees of the state sanitary control, state and local administration local administration included include		· · · · · · · · · · · · · · · · · · ·		ona	SKI	IIS	<u> </u>	<u> </u>					1	1	1			-1	- 1	$\neg$
understandable and appropriate for the situation  U_OUZ3 formulates clear case studies and knows how to create documentation according to the current laws and regulations, in the form understandable for the owner of the animal and clear for other veterinary surgeons  U_OUZ4 knows how to operate in the interdisciplinary team appropriately interprets responsibility of the veterinary surgeon towards animal, its owner, society and environment evaluates economical and sociological implications of the veterinary practice, understands the need of the best possible utilisation of professional skills in order to enhance the quality of veterinary racture.  U_OUZ7 professional skills in order to enhance the quality of veterinary care, animal welfare and public health  Graduate knows how to organise and implement veterinary practice, including:  knows self and employer responsibilities and obligations in light of the law and occupational health and safety  u_OUZ9 graduations can calculate fees, knows how to issue an official invoice and respects rules of proper financial and medical documentation  u_OUZ101 acts within the current standards and ethical obligations  u_OUZ11 acts within the current standards and ethical obligations  u_OUZ121 can adapt professional offer to the dynamically changing situation on the work market knows his limitations and knows how to use the knows his limitations and knows how to use the professional advention and knows how to use the professional advention and knows how to use Polish professional source materials  u_OUZ121 performs veterinary investigation in order to acquire precise information on single animal and group of animals (law and in the current on single animal and group of animals (law and headles) and headles animals in safe and humane way, and instructs of the professional skills  u_PUZ22  performs veterinary investigation in order to acquire precise information on single animal and group of animals (law and instructs) and instructs of the professional skills	U_OUZ1	and employees of the state sanitary control, state and						1			3	3		3						
documentation according to the current laws and regulations, in the form understandable for the owner of the animal and clear for other veterinary surgeons  U_OUZ4 knows how to operate in the interdisciplinary team appropriately interprets responsibility of the veterinary practice understands the need of the best possible utilisation of professional skills in order to enhance the quality of veterinary practice understands the need of the best possible utilisation of professional skills in order to enhance the quality of veterinary care, animal welfare and public health  Graduate knows how to organise and implement veterinary practice, including:  U_OUZ8   Income seef and employer responsibilities and obligations in light of the law and occupational health and safety regulations can calculate fees, knows how to issue an official invoice understands the section of the professional and medical documentation uses computer systems for effective communication, accumulation, processing, analysis and propagation of information understands the need of continuous education for professional development can adapt professional offer to the dynamically changing situation on the work market knows his limitations and knows how to use the U_OUZ15 uses English and Latin medical nomenclature   U_OUZ16   Can communicate in Polish and knows how to use Polish professional source materials   U_PUZ2   Performs veterinary investigation in order to acquire prefersional skills   U_PUZ2   Performs veterinary investigation in order to acquire prefersional skills   U_PUZ2   Performs veterinary investigation in order to acquire prefersional skills   U_PUZ2   Performs veterinary investigation in order to acquire prefersional skills   U_PUZ2   Performs veterinary investigation in order to acquire prefersional skills	U_OUZ2							1												1
appropriately interprets responsibility of the veterinary surgeon towards animal, its owner, society and evitorinary practice environment  U_OUZ6 evaluates economical and sociological implications of the veterinary practice understands the need of the best possible utilisation of professional skills in order to enhance the quality of veterinary care, animal welfare and public health  Graduate knows how to organise and implement veterinary practice, including:  Knows self and employer responsibilities and obligations in light of the law and occupational health and safety regulations  Can calculate fees, knows how to issue an official invoice and respects rules of proper financial and medical documentation uses computer systems for effective communication, accumulation, processing, analysis and propagation of information  U_OUZ11 acts within the current standards and ethical obligations  U_OUZ12 understands the need of continuous education for professional development  U_OUZ13 can adapt professional offer to the dynamically changing situation on the work market knows his limitations and knows how to use the U_OUZ14 professional advice and help of the specialists or specialised units in difficult cases  U_OUZ15 uses English and Latin medical nomenclature  U_OUZ16 can communicate in Polish and knows how to use Polish professional source materials  Performs veterinary investigation in order to acquire precise information on single animal and group of animals (heard), and their environment  N_PUZ2  L_PUZ2 bits to do alike	U_OUZ3	documentation according to the current laws and regulations, in the form understandable for the owner of																		
appropriately interprets responsibility of the veterinary surgeon towards animal, its owner, society and a group of the veterinary surgeon towards animal, its owner, society and a servironment evaluates economical and sociological implications of the veterinary practice understands the need of the best possible utilisation of professional skills in order to enhance the quality of veterinary care, animal welfare and public health servirancy care, animal welfare and public health welfare and public health and safety regulations.  U_OUZB light of the law and occupational health and safety regulations can calculate fees, knows how to issue an official invoice and respects rules of proper financial and medical documentation uses computer systems for effective communication, accumulation, processing, analysis and propagation of information  U_OUZ11 acts within the current standards and ethical obligations understands the need of continuous education for professional development  U_OUZ12 can adapt professional offer to the dynamically changing situation on the work market knows his limitations and knows how to use the professional advice and help of the specialists or specialised units in difficult cases  U_OUZ15 uses English and Latin medical nomenclature  U_OUZ16 can communicate in Polish and knows how to use Polish professional source materials  Performs veterinary investigation in order to acquire precise information on single animal and group of animals (heard), and their environment handles animals in safe and humane way, and instructs  U_DUZ2 utility is a second to the professional side of the professional side of the polish and knows how to use Polish professional side of the professional and the polish and second in the professional and the professional and humane way, and instructs  U_DUZ2 before the dynamical professional side of the professional source materials  Performs veterinary investigation in order to acquire precise information on single animal and group of animals (heard), and their environment ha	U OUZ4	knows how to operate in the interdisciplinary team						3												-
U_OUZ1  U_OUZ1  Evaluates economical and sociological implications of the veterinary practice understands the need of the best possible utilisation of professional skills in order to enhance the quality of veterinary care, animal welfare and public health Graduate knows how to organise and implement veterinary practice, including:  U_OUZ8  Knows self and employer responsibilities and obligations in light of the law and occupational health and safety regulations can calculate fees, knows how to issue an official invoice and respects rules of proper financial and medical documentation uses computer systems for effective communication, accumulation, processing, analysis and propagation of information  U_OUZ11 acts within the current standards and ethical obligations  U_OUZ12 understands the need of continuous education for professional development  U_OUZ13 situation on the work market knows his limitations and knows how to use the professional office to the dynamically changing situation on the work market knows his limitations and knows how to use the professional source materials  U_OUZ15 uses English and Latin medical nomenclature  U_OUZ16 professional source materials  Paractical professionals kills  performs veterinary investigation in order to acquire precise information on single animal and group of animals (heard), and their environment handles animals in safe and humane way, and instructs  J_PUZ2 others to do alike		appropriately interprets responsibility of the veterinary						3									3			
understands the need of the best possible utilisation of professional skills in order to enhance the quality of veterinary care, animal welfare and public health  Graduate knows how to organise and implement veterinary practice, including:  knows self and employer responsibilities and obligations in light of the law and occupational health and safety regulations can calculate fees, knows how to issue an official invoice and respects rules of proper financial and medical documentation uses computer systems for effective communication, uses computer systems for effective communication, uses computer systems for effective communication, uses computer systems for effective communication of information uses computer systems for effective communication, uses computer	U OUZ6	evaluates economical and sociological implications of the																		_
Veterinary care, animal welfare and public health   Graduate knows how to organise and implement veterinary practice, including:   Nows self and employer responsibilities and obligations in light of the law and occupational health and safety regulations   Can calculate fees, knows how to issue an official invoice and respects rules of proper financial and medical documentation   U_OUZ19   accumulation, processing, analysis and propagation of information   U_OUZ11   acts within the current standards and ethical obligations   U_OUZ12   U_OUZ13   Can calculate fees of the dynamically changing situation on the work market   V_OUZ14   Can adapt professional offer to the dynamically changing situation on the work market   V_OUZ14   Knows his limitations and knows how to use the professional advice and help of the specialists or specialised units in difficult cases   V_OUZ16   Can communicate in Polish and knows how to use Polish professional source materials   V_OUZ16   Can communicate in Polish and knows how to use Polish professional source materials   V_OUZ16   Can communicate in Polish and knows how to use Polish professional source materials   V_OUZ16   Can communicate in Polish and knows how to use Polish professional source materials   V_OUZ16   Can communicate in Polish and knows how to use Polish professional source materials   V_OUZ16   Can communicate in Polish and knows how to use Polish professional source materials   V_OUZ16   Can communicate in Polish and knows how to use Polish professional source materials   V_OUZ16	U OUZ7	understands the need of the best possible utilisation of										3	1					2		7
Nows self and employer responsibilities and obligations in	_	veterinary care, animal welfare and public health	mn	lem	ent	ve	teri	nar	v n	racti	ce i			g.						_
regulations can calculate fees, knows how to issue an official invoice and respects rules of proper financial and medical documentation uses computer systems for effective communication, accumulation, processing, analysis and propagation of information uses computer systems for effective communication, accumulation, processing, analysis and propagation of information understands the need of continuous education for professional development can adapt professional development can adapt professional offer to the dynamically changing situation on the work market knows his limitations and knows how to use the U_OUZ14 professional advice and help of the specialists or specialised units in difficult cases understands and knows how to use Polish professional source materials practical professional skills    U_OUZ16   Porforms veterinary investigation in order to acquire precise information on single animal and group of animals (heard), and their environment handles animals in safe and humane way, and instructs others to do alike			_				<u> </u>	<u> </u>	<i>)</i> P		1	T	T	P.						$\neg$
U_OUZ10 and respects rules of proper financial and medical documentation uses computer systems for effective communication, accumulation, processing, analysis and propagation of information  U_OUZ11 acts within the current standards and ethical obligations  U_OUZ12 professional development  Can adapt professional offer to the dynamically changing situation on the work market knows his limitations and knows how to use the professional advice and help of the specialists or specialised units in difficult cases  U_OUZ15 uses English and Latin medical nomenclature  Can communicate in Polish and knows how to use Polish professional source materials  D_PUZ1 performs veterinary investigation in order to acquire precise information on single animal and group of animals (heard), and their environment  N_PUZ2 handle safe and humane way, and instructs others to do alike	U_OUZ8	regulations																	3	_
U_OUZ11 acts within the current standards and ethical obligations  U_OUZ12 understands the need of continuous education for professional development  U_OUZ13 can adapt professional offer to the dynamically changing situation on the work market  Knows his limitations and knows how to use the professional advice and help of the specialists or specialised units in difficult cases  U_OUZ15 uses English and Latin medical nomenclature  U_OUZ16 can communicate in Polish and knows how to use Polish professional source materials  U_PUZ1 precise information on single animal and group of animals (heard), and their environment  U_PUZ2 characteristics and professional structs others to do alike	U_OUZ9	and respects rules of proper financial and medical documentation																		
U_OUZ12 understands the need of continuous education for professional development  U_OUZ13 can adapt professional offer to the dynamically changing situation on the work market knows his limitations and knows how to use the professional advice and help of the specialists or specialised units in difficult cases  U_OUZ14 can communicate in Polish and knows how to use the professional source materials  U_OUZ16 can communicate in Polish and knows how to use Polish professional source materials  Paractical professional skills  U_PUZ1 precise information on single animal and group of animals (heard), and their environment  U_PUZ2 contains the need of continuous education for professional structs others to do alike	U_OUZ10	accumulation, processing, analysis and propagation of						2	3											
U_OUZ13 can adapt professional offer to the dynamically changing situation on the work market knows his limitations and knows how to use the professional advice and help of the specialists or specialised units in difficult cases  U_OUZ15 uses English and Latin medical nomenclature  U_OUZ16 can communicate in Polish and knows how to use Polish professional source materials  Performs veterinary investigation in order to acquire precise information on single animal and group of animals (heard), and their environment  U_PUZ2 handles animals in safe and humane way, and instructs others to do alike	U_OUZ11																			
U_OUZ14   Situation on the work market	U_OUZ12	professional development								3	- 3	3		3				2		$\perp$
U_OUZ14 professional advice and help of the specialists or specialised units in difficult cases  U_OUZ15 uses English and Latin medical nomenclature  U_OUZ16 can communicate in Polish and knows how to use Polish professional source materials  Paractical professional skills  performs veterinary investigation in order to acquire precise information on single animal and group of animals (heard), and their environment  U_PUZ2 handles animals in safe and humane way, and instructs others to do alike	U_OUZ13	situation on the work market									$\downarrow$	-								_
U_OUZ15 uses English and Latin medical nomenclature U_OUZ16 can communicate in Polish and knows how to use Polish professional source materials  Paractical professional skills  U_PUZ1 precise information on single animal and group of animals (heard), and their environment  U_PUZ2 handles animals in safe and humane way, and instructs others to do alike	U_OUZ14	professional advice and help of the specialists or															3			
professional source materials  practical professional skills  U_PUZ1 professional source materials  U_PUZ1 professional source materials  U_PUZ2 handles animals in safe and humane way, and instructs others to do alike	_	uses English and Latin medical nomenclature									3	3		3						4
Performs veterinary investigation in order to acquire precise information on single animal and group of animals (heard), and their environment  U_PUZ2 handles animals in safe and humane way, and instructs others to do alike	U_OUZ16	professional source materials	for	l .	21.5	 	<u></u>			3										
U_PUZ1 precise information on single animal and group of animals (heard), and their environment  U_PUZ2 handles animals in safe and humane way, and instructs others to do alike		· · · · · ·	162	JUI	iai S	MIIIS	, 				$\overline{}$		1					- 1	- 1	$\neg$
O_PUZZ others to do alike	U_PUZ1	precise information on single animal and group of animals (heard), and their environment			3		2		3											
U_PUZ3   carries out full clinical evaluation		others to do alike			3				3										3	
	U_PUZ3	carries out full clinical evaluation		<u> </u>		<u> </u>														

									_								
	performs first aid procedures for all animal species for																
U PUZ4	haemorrhage, wounds, respiratory disorders, eye and ear																
0_1 024	injuries, internal injuries, heart block, loss of																
	consciousness, cahexia, burns and tissue injuries																
U PUZ5	evaluates nutritional state of the animal and ordains											3					
0_F023	information on proper animal nutrition											3					
	collects and safeguards the biological material, knows the																
576	rules of sample transport and basic laboratory analyses,	_						١,			_						
U_PUZ6	properly evaluates and interprets results of laboratory	3						3			3						
	analyses																
																1	
	uses diagnostic apparatuses including x-ray, ultrasound																
U_PUZ7	and others, according to its manuals and health and safety																
	regulations concerning animals and humans																
	implements proper official epizootic procedures in case of							1	t				1	1	1	$\top$	$\top$
U_PUZ8	the law-regulated diseases					3											
U PUZ9	acquires and uses information on registered drugs					3			T					7	1	$\top$	+
5 023	prescribes and uses drugs and medical materials according					٦	$\vdash$	+	+	$\vdash$				+	+	+	+
U_PUZ10	to current regulations, including rules of their safe storage		1						1								
0_F0210			1						1								
	and utilisation							_						-		+	+
U PUZ11	uses methods of safe sedation, general and local																
0_P0211	anaesthesia, and methods for pain evaluation and relief																
	·							_						-		+	+
U_PUZ12	choses the treatment adequate for the diagnosed disease					3					3						
	in-al															T	
U PUZ13	implements rules of aseptic and antiseptic surgery																
_	procedures, and uses proper methods of tools sterilisation																
	avaluates the wood for authorosis, properly informs the															T	$\top$
	evaluates the need for euthanasia, properly informs the																
U PUZ14	owner of the animal and carries out the euthanasia																
_	procedure according to rules and obligations of																
	professional ethics and proper utilisation of the body																
	carries out patomorphological examination, prepares															T	$\top$
U PUZ15	proper protocol, collects and labels samples and																
_	safeguards them for transport																
	performs ante-mortem and post-mortem examination and								T					7	1	$\top$	+
U_PUZ16	examination of the products of animal origin								1								
								1	1					1	7	1	$\top$
U PUZ17	documents and uses documentation of the health, welfare								1								
/	and, in certain cases, the productivity of the heard																
	prepares the preventive scheme according to the species							1	t				1	1	1	$\top$	$\top$
U_PUZ18	specifics					3			1								
	evaluates the risk and prepares the procedures minimising						$\vdash$	1	1				_	-	+	$\dashv$	$\top$
	the risk of contamination, cross-species infection and								1								
U_PUZ19	accumulation of the disease agents in veterinary facilities								1								
	and the environment								1								
	DEPSONAL C		<del></del>	L		Щ.			_	<u> </u>						L_	

## PERSONAL COMPETENCES

# Graduate:

K_KP1	takes responsibility for his decisions concerning humans and animals				2	2						3	1	2	
K KP2	observes the ethical rules and obligations	7	+	+	 1				_	$\dashv$	7		_		3
K_KP3	shows tolerance to beliefs and behaviour influenced by different sociological and cultural background				_					T					1
K_KP4	shows the competence in solving of the conflicts and pliability in the reactions for sociological changes					2						3			
K_KP5	can critically evaluate personal actions and actions of others to improve proposed actions					2						3			
K_KP6	developed a habit of constantly updating his knowledge and skills					2						3	1		
K_KP7	knows his limitations					2				Ш		3	1		
K_KP8	considers wellbeing of his patient as a topmost priority														
K_KP9	can cooperate with specialists of other professions for the protection of public health														
K_KP10	can operate under stress and duress					1									
K_KP11	can organise the work of a team					3									
K_KP12	understands the need to engage in the operations of professional and territorial organisations														
K_KP13	understands the consequences of his decisions, especially those influencing natural environment					2						3			
K_KP14	knows basic laws and regulations governing intellectual property														
Inne 1	has knowledge sufficient for further study in the course of continuity of the subjects	2				1		3				3			
Inne2	has other knowledge and skills	Ī										3			

## **LEARNING OUTCOMES MATRIX**

Unit: Faculty of Veterinary Medicine Field of studies: Veterinary Medicine

Level of study: Long-cycle Master's degree programme

Profile of study: General Academic (GA)

Animal pathophysiology Animal pathophysiology Animal pathophysiology Animal pathophysiology Animal pathophysiology Animal pathophysiology Bathomorphology Module 1 Pethomorphology Module 1 Pethomorphology Module 1 Pethomorphology Module 1 Pethomorphology Module 1 Polish language Module 4 Clinical and laboratory diagnostics Module 1 Veterinary virology Bacteriological laboratory diagnostics of skin inf One Health in veterinary practice Veterinary pharmacology Module 2 Pathomorphology Module 2 Pethomorphology Module 2 Pethomorphology Module 2 Pethomorphology Module 2 Veterinary pharmacy General surgery and anesthesiology General surgery and anesthesiology Module 2 Parasitology and invasiology Module 2 Clinical and laboratory diagnostics Module 2 Bee diseases Advances in biomedical sciences - joint course Experimental immunology	Effect symbol	
Animal pathophysiology Pathomorphology Module 1 Veterinary Pharmacology Module 1 Parasitology and invasiology Module 1 Polish language Module 4 Clinical and laboratory diagnostics Module 1 Veterinary virology Bacteriological laboratory diagnostics of skin inf One Health in veterinary practice Veterinary Pharmacology Module 2 Pathomorphology Module 2 Ceneral surgery and anesthesiology General surgery and anesthesiology General surgery and anesthesiology Module 2 Clinical and laboratory diagnostics Module 2 Clinical and laboratory diagnostics Module 2 Bee diseases Advances in biomedical sciences - joint course Experimental immunolopy		
Pathomorphology Module 1  Veterinary Pharmacology Module 1  Parasitology and invasiology Module 1  Polish language Module 4  Clinical and laboratory diagnostics Module 1  Veterinary virology  Bacteriological and mycological laboratory diagnostics of skin inf  One Health in veterinary practice Veterinary Pharmacology Module 2  Pathomorphology Module 2  Pathomorphology Module 2  Veterinary pharmacy  General surgery and anesthesiology  Ginical and laboratory diagnostics Module 2  Clinical and laboratory diagnostics Module 2  Clinical and laboratory diagnostics Module 2  Response to public health related disasters  Parasitology and invasiology Module 2  Clinical and laboratory diagnostics Module 2  Bee diseases  Advances in biomedical sciences - joint course  Experimental immunology		
odule 1  atory diagnostics of skin inf  asters  2  odule 2  nt course	Pathomorphology Module	
odule 1  atory diagnostics of skin inf  asters  2  odule 2  odule 2  nt course		
s Module 1  aboratory diagnostics of skin inf  a 2  By  disasters  s Module 2  s Module 2		
s Module 1  aboratory diagnostics of skin inf  a 2  By  agy  all disasters  s Module 2  s Module 2	Polish language Module 4	
aboratory diagnostics of skin inf  a 2  By  disasters  s Module 2  s Module 2		
aboratory diagnostics of skin inf  E 2  Bgy  I disasters  S Module 2  S Module 2	Veterinary virology	1 1
A disasters Ill disasters Si Module 2 Si Module 2 Si Joint course	mycological laboratory diagnostics of skin	
e 2 Bay	One Health in veterinary practice	
Bgy d disasters Lule 2 S Module 2 - joint course		
bgy d disasters Jule 2 s Module 2	Pathomorphology Module 2	
	Veterinary pharmacy	
	General surgery and anesthesiology	
	Diagnostic imaging	
	Response to public health related disasters	
	Parasitology and invasiology Module 2	
	Bee diseases	
Experimental immypology		
	Experimental immunology	

#### Modules

	Graduate knows	an	d m	nde	rsta	hnd	ς.												
	Basic s				. 3.0		٥.												
	knows and describes regular morphology of the animal		<u> </u>	Ĭ															
WW_NP1	organism: cells, tissues, organs and systems				1											1			
WW_NP2	knows structure, describes and explains functions of the systems of the animal organism (respiratory, gastrointestinal, cardiovascular, urinary, nervous,																	3	
	locomotion, reproductive, endocrine, immune and skin)																		
WW_NP3	describes and interprets development of organs and the whole organism in relation to the adult organism																	3	
WW_NP4	describes and explains metabolic processes on the molecular, cellular, organ and organism levels																		
WW_NP5	describes and explains homeostasis, neurohormonal	3																	
	regulation reproduction, ageing and death describes, explains and interprets rules and mechanisms																		
WW_NP6	governing animal health, disease and therapy, from the cellular level, through the organs, organisms, herds to the whole population of animals	3			1					2						1			
WW_NP7	knows and interprets patophysiological changes in the organs and systems, biological mechanisms (including immunological) and pharmacological mechanisms	3		3	3									3		3			
WW_NP8	facilitating recovery identifies and describes biology of infectious agents inducing diseases transmitted between animals, animals and humans, including mechanisms of the disease				3			3	3							3		3	
WW_NP9	transmission and organism defence systems defines and describes genetic mechanisms, identifies genetic disorders and knows bases of the genetic																		
	engineering																		
WW_NP10	defines and describes mechanisms of drug action, their fate in the organism and drug-to-drug interactions			3							3								
WW_NP11	utilises chemoterapeutics			3	2				3		3					3			
WW_NP12	prescribes drugs												3						
WW_NP13	knows and uses English and Latin medical nomenclature	3			1		2						3			1	2		
WW_NP14	knows and uses Polish language to the effect of communication with the specialists in the veterinary and related sciences, uses Polish source materials				1	3										1			2
	Clinical	scie	ence	es															
W_NK1	describes, explains and interprets disorders on the cellular, tissue, organ, system and organism levels occurring in the course of the disease	3	3				3					3		3			3		
W_NK2	describes, explains and interprets mechanisms of the organ and organism pathologies	3	3				2					3					3		
W_NK3	describes and interprets causes and symptoms of the disease, describes and interprets patomorphological changes, uses procedures for therapy and prevention in the particular diseases		3									3						3	
W_NK4	implements diagnostic (including differential diagnostics) and therapeutic procedures				1		3							3		1	3	3	
W_NK5	carries out clinical evaluation and monitors heard health in the intensive production						3										3		
W_NK6	implements official epizootic procedures in case of the law- regulated diseases							3											

W_NK7	collects, analyses and correctly interprets clinical data, results of the laboratory tests and other diagnostics techniques		3		1		2					3					1	3			
W_NK8	indicates and interprets appropriate law regulations, knows rules governing issuing of the verdicts and creates official opinions for the law courts, state, local and			3															3		
W NK9	veterinary administration knows bases of the functioning of state veterinary service,				1												1				
_	also in the aspect of public health prevention																				
M/ D74	Animal parties breeds within animal species, describes rules of	100	luci	ion															П		$\neg$
W_PZ1	animal husbandry and breeding																		_	_	
W_PZ2	describes rules for animal selection for breeding, methods of breeding and selection																				
W_PZ3	describes rules of animal feeding (according to the species specifics), elaborates and analyses diet compositions																				
W_PZ4	describes and evaluates conditions for animal welfare																				
W_PZ5	describes and interprets rules of produce economics																				
W D76	describes conditions for appropriate utilisation and																				
W_PZ6	disposal of animal by-products and management of waste from animal production																				
	Food	hyg	iene	9											•	•		•			
W_HŻ1	describes and interprets methods of consumers health protection by the appropriate organ responsible for the production of foods of animal origin															3					
W_HŻ2	describes, interprets and evaluates conditions of hygiene and technology of production, food safety, also uses appropriate law regulations of the veterinary supervision									3						3					
\A	conducts ante-mortem and post-mortem examination of	<del>                                     </del>												H					+	$\dashv$	
W_HŽ3	animals																		_	_	
W_HŻ4	describes and implies HACCP (Hazard Analysis and Critical Control Points) procedures																				
		(ILL:	S																		_
	Graduate k																				
	basic profe effectively communicates with clients, veterinary surgeons		onal	ski	lls	1	1								-	-		-		$\overline{}$	
U_OUZ1	and employees of the state sanitary control, state and local administration	2					3		3									3		2	
U_OUZ2	knows how to listen and explain in the language that is understandable and appropriate for the situation	3														2				2	2
U_OUZ3	formulates clear case studies and knows how to create documentation according to the current laws and regulations, in the form understandable for the owner of the animal and clear for other veterinary surgeons		3									3						3			
U OUZ4	knows how to operate in the interdisciplinary team															2			+	2	2
_	appropriately interprets responsibility of the veterinary																			Ī	Ē
U_OUZ5	surgeon towards animal, its owner, society and			3			3		2	3			3			2		3			
U_OUZ6	environment evaluates economical and sociological implications of the veterinary practice											3									
U_OUZ7	understands the need of the best possible utilisation of professional skills in order to enhance the quality of veterinary care, animal welfare and public health																				
	Graduate knows how to organise and i	_	lem	ent	ve	teri	nar	yр	ract	ice	, inc	luc	ling	;:							
U_OUZ8	knows self and employer responsibilities and obligations in light of the law and occupational health and safety						2														
U OUZ9	regulations can calculate fees, knows how to issue an official invoice and respects rules of proper financial and medical																		_	_	
U_OUZ10	documentation uses computer systems for effective communication, accumulation, processing, analysis and propagation of																				
	information acts within the current standards and ethical obligations						3											3		$\dashv$	
U OUZ12	understands the need of continuous education for	2														2			$\dashv$	$\dashv$	1
U_OUZ13	professional development can adapt professional offer to the dynamically changing situation on the work market	Ē																	_	$\dashv$	_
U_OUZ14	knows his limitations and knows how to use the professional advice and help of the specialists or																		3		
U_OUZ15	specialised units in difficult cases uses English and Latin medical nomenclature	1											3					2	<del>-</del>	$\dashv$	_
U_OUZ16	can communicate in Polish and knows how to use Polish professional source materials		Ĺ		1.27																
U_PUZ1	performs veterinary investigation in order to acquire precise information on single animal and group of animals	ies	sion	al S	KIIIS												3		3	$\exists$	
U PUZ2	(heard), and their environment handles animals in safe and humane way, and instructs	-		_			2		_										$\dashv$	$\dashv$	
_	others to do alike	_		_					_					$\vdash$	-	-		-	_	4	4
U_PUZ3	carries out full clinical evaluation	<u> </u>	<u> </u>			<u> </u>	2							Ш					3		_

				_		_												
	performs first aid procedures for all animal species for																	
U PUZ4	haemorrhage, wounds, respiratory disorders, eye and ear										3			1				
_	injuries, internal injuries, heart block, loss of																	
	consciousness, cahexia, burns and tissue injuries			4	_													4
U PUZ5	evaluates nutritional state of the animal and ordains								3									
	information on proper animal nutrition		4-	4	4-			_									_	_
	collects and safeguards the biological material, knows the																	
U PUZ6	rules of sample transport and basic laboratory analyses,						3						3	3	3	3		
_	properly evaluates and interprets results of laboratory																	
	analyses		-	+-	+	+											-	4
	uses diagnostic apparatuses including x-ray, ultrasound																	
U_PUZ7	and others, according to its manuals and health and safety											3		1				1
	regulations concerning animals and humans																	
	implements proper official epizootic procedures in case of		╁	+	+	-										-		4
U_PUZ8	the law-regulated diseases															3		
U PUZ9	acquires and uses information on registered drugs	- 3	+	+	╁					3	3			1		3	-	-
0_P029	prescribes and uses drugs and medical materials according		+	+	+					3	3					3		4
U PUZ10	l	3	2							3				1		3		
0_P0210	to current regulations, including rules of their safe storage	3	4							3				1		3		
	and utilisation			+-		-												4
U PUZ11	uses methods of safe sedation, general and local										3							
0_F0211	anaesthesia, and methods for pain evaluation and relief										٥							
		_		+													$\dashv$	-
U_PUZ12	choses the treatment adequate for the diagnosed disease									3								
	implements rules of aseptic and antiseptic surgery																	
U_PUZ13	procedures, and uses proper methods of tools sterilisation						3				3					3		
	F - F - F - F - F - F - F - F - F - F -	_		4													_	4
	evaluates the need for euthanasia, properly informs the																	
5.1.74.4	owner of the animal and carries out the euthanasia						_											
U_PUZ14	procedure according to rules and obligations of						3											
	professional ethics and proper utilisation of the body																	
	carries out patomorphological examination, prepares		-	+	+											-	-	-
U PUZ15	proper protocol, collects and labels samples and																	
0_F0213	safeguards them for transport																	
	performs ante-mortem and post-mortem examination and	_	-	-	+	+											-+	-
U_PUZ16	examination of the products of animal origin												1					
	·		╫	+	╁											-	-	-
U PUZ17	documents and uses documentation of the health, welfare														3			
0_1 0217	and, in certain cases, the productivity of the heard														J			
	prepares the preventive scheme according to the species	<b>-</b>		+	+												$\dashv$	┪
U_PUZ18	specifics																	
	evaluates the risk and prepares the procedures minimising			1	$\top$												十	ヿ
	the risk of contamination, cross-species infection and																	
U_PUZ19	accumulation of the disease agents in veterinary facilities															3		
	and the environment																	
	DERSONAL C	 	-:					 				•						_

#### PERSONAL COMPETENCES

#### Graduate:

K KP1	takes responsibility for his decisions concerning humans	2							3					2					
K_KLI	and animals	_							3					_					
K_KP2	observes the ethical rules and obligations					2										3			1
K KP3	shows tolerance to beliefs and behaviour influenced by																	1	
K_KP3	different sociological and cultural background																Ш	1	
K KP4	shows the competence in solving of the conflicts and																	1	
K_KF4	pliability in the reactions for sociological changes																Ш	1	
K KP5	can critically evaluate personal actions and actions of														1	3			
	others to improve proposed actions														_	,	ш		_
K KP6	developed a habit of constantly updating his knowledge	3			1	2									1	3		1	
	and skills	Ĭ				_									_	Ŭ	Ш	_	_
K_KP7	knows his limitations	1			1										1		Ш		
K_KP8	considers wellbeing of his patient as a topmost priority				1	2									1	3			
K_KP9	can cooperate with specialists of other professions for the				1	2								2	1	2			
V VD10	protection of public health					2		-	-	-	-	-	_	1	4	2	$\vdash$	-	_
K_KP10	can operate under stress and duress					2		_	_	_	_	_		3	1	_	Н	_	_
K_KP11	can organise the work of a team					2										2	ш		_
K KP12	understands the need to engage in the operations of																		
	professional and territorial organisations																$\vdash \vdash$	_	_
K KP13	understands the consequences of his decisions, especially																		
	those influencing natural environment																$\vdash$	_	_
K_KP14	knows basic laws and regulations governing intellectual																		
	property						H	-	-	+	+	-					$\vdash$	-	_
	has knowledge sufficient for further study in the course of																$\vdash$		_
Inne 1	continuity of the subjects											1						1	
Inne2	has other knowledge and skills							-1	-1	1	1	-1					H	1	-
micz	ing other knowledge and skills	I	ı	1 1		1 1												-	

# **LEARNING OUTCOMES MATRIX**

Unit: Faculty of Veterinary Medicine Field of studies: Veterinary Medicine

Level of study: Long-cycle Master's degree programme Profile of study: General Academic (GA)

									lod ⁄ea								
Effect symbol	Directional effects	Farm animal diseases	Feed hygiene	Pathomorphology Module 3	Meat hygiene Module 1	Clinical and functional neuroanatomy in dogs and cats	Management of laboratory animal facility	Equine diseases	Meat Hygiene Module 2	Zoonoses	Andrology and artificial insemination	Veterinary jurisprudence	Fish diseases	Clinical immunology	Clinical haematology	lule	Vet. inspection practice, slaughter house (summer practice)

#### Modules

#### Graduate knows and understands:

	Graduate knows and ui		130	anı	<i>u</i> 3.													
	Basic science knows and describes regular morphology of the animal	:5			П	1	Т			1							<del>-</del> T	
W/W/ NIP1 I	organism: cells, tissues, organs and systems					2	1			Ī								
	knows structure, describes and explains functions of the	П													T	$\Box$	T	T
	systems of the animal organism (respiratory,					1	1			- 1							1	
\\/\\/ NIP2	gastrointestinal, cardiovascular, urinary, nervous,					2	1			- 1					3		1	
	locomotion, reproductive, endocrine, immune and skin)	Ш	Ш			_	4								$\perp$		_	
WW NP3	describes and interprets development of organs and the					1	1			- 1					3		1	
_	whole organism in relation to the adult organism	Ш	$\vdash$		$\vdash$		_			_	_				$\check{\dashv}$	_	-	4
WW NP4	describes and explains metabolic processes on the						Ì			Ī								
	molecular, cellular, organ and organism levels describes and explains homeostasis, neurohormonal	H	$\vdash$		H		-				_		H		$\dashv$	$\dashv$	$\dashv$	+
WW_NP5																		
	regulation reproduction, ageing and death describes, explains and interprets rules and mechanisms	H	H		H	$\dashv$	$\dashv$	-		-1			H	H	$\dashv$	$\dashv$	$\dashv$	+
	governing animal health, disease and therapy, from the					1	1										1	
W/W/ NIPE I	cellular level, through the organs, organisms, herds to the					2	1			- 1		2				3	1	
	whole population of animals																	
	knows and interprets patophysiological changes in the	H	П		H	T	7			T			H		寸	寸	寸	$\dashv$
	organs and systems, biological mechanisms (including											2				٦		
WW NP/	immunological) and pharmacological mechanisms											2				3		
	facilitating recovery		Ш				$\perp$		$\bot$						$\Box$	$\Box$	$\perp$	1
	identifies and describes biology of infectious agents	П													$\Box$		$\Box$	T
WW NP8	inducing diseases transmitted between animals, animals					1	1			- 1	3						1	
AA AA _IALO	and humans, including mechanisms of the disease					1	1			- 1	٦						1	
	transmission and organism defence systems	Ш	Ш				_								_			_
	defines and describes genetic mechanisms, identifies					1	1			- 1							1	
_	genetic disorders and knows bases of the genetic					1	1			- 1							1	
	engineering	Ш	Н		Щ	4	4			_			Щ	-	4		4	-
ND10	defines and describes mechanisms of drug action, their fate	إرا				I			٦	1		2				2	I	
W/W/ NP10 I	in the organism and drug-to-drug interactions	2				I			2	1		2				3	I	
WW NP11	utilises chemoterapeutics	Н	H		H	$\dashv$	$\dashv$	+	-	$\dashv$			H		2	$\dashv$	$\dashv$	3
	prescribes drugs	2	Н		H	+	+		2	1			H		_	$\dashv$	$\dashv$	3
M M INLTE	prescribes drugs		Н		H	-	+		_	-			H		$\dashv$	+	$\dashv$	3
WW_NP13	knows and uses English and Latin medical nomenclature															3		
	knows and uses Polish language to the effect of	Ħ			H		T								T	$\exists$	T	T
WW_NP14	communication with the specialists in the veterinary and					2	1			1						ĺ	Ī	
_	related sciences, uses Polish source materials	Ш	Ш												$\Box$		$\perp$	$\perp$
<del>_</del>	Clinical scienc	es																
	describes, explains and interprets disorders on the cellular,	$\Box$													$\Box$		$\Box$	T
W_NK1	tissue, organ, system and organism levels occurring in the	2				3	1			- 1			2			3	1	
	course of the disease	Ш	Щ			_	_	_		_					$\perp$	$\perp$	$\dashv$	4
W NK /	describes, explains and interprets mechanisms of the organ	ŢΙ	Ī			2	1	_	_	_	_	2			3	3	_	_
_	and organism pathologies	Ш	Щ		Щ	_	_			_		_			3	3	4	_
	describes and interprets causes and symptoms of the						I			1								
W NK3	disease, describes and interprets patomorphological	3		3		2	1		3	1	2	2	2			3	Ī	
_	changes, uses procedures for therapy and prevention in			-		_ [					_					Ī		
	the particular diseases	Ш	Н			_	4	4			_				$\dashv$	_	$\dashv$	+
W NK4	implements diagnostic (including differential diagnostics)	3					2		3			2			3	3	3	3
	and therapeutic procedures carries out clinical evaluation and monitors heard health in	H	$\vdash$		H	$\dashv$	$\dashv$			-1			H	$\vdash$	$\dashv$	$\dashv$	$\dashv$	+
W NK5	the intensive production	3				Ì	1	2	3						3		Ì	
	implements official epizootic procedures in case of the law-	3	П		H	7	1			T					丁	丁	寸	3
AN INVO	regulated diseases	3																3

	T																		_
W_NK7	collects, analyses and correctly interprets clinical data, results of the laboratory tests and other diagnostics techniques	3		3					3			2	3		3		3	3	
W_NK8	indicates and interprets appropriate law regulations, knows rules governing issuing of the verdicts and creates official opinions for the law courts, state, local and veterinary administration											2		3					
W_NK9	knows bases of the functioning of state veterinary service, also in the aspect of public health prevention		3																
	Animal product	ior	1																
W_PZ1	describes breeds within animal species, describes rules of																		
W_PZ2	animal husbandry and breeding describes rules for animal selection for breeding, methods of breeding and selection												3						
W_PZ3	describes rules of animal feeding (according to the species specifics), elaborates and analyses diet compositions																		
W_PZ4	describes and evaluates conditions for animal welfare				3														2
W PZ5	describes and interprets rules of produce economics																		T
W_PZ6	describes conditions for appropriate utilisation and disposal of animal by-products and management of waste from animal production		3		3			1											2
	Food hygien	e																	
W_HŻ1	describes and interprets methods of consumers health protection by the appropriate organ responsible for the production of foods of animal origin		3		3					3									3
W_HŻ2	describes, interprets and evaluates conditions of hygiene and technology of production, food safety, also uses appropriate law regulations of the veterinary supervision		3		3					3	2								3
W_HŻ3	conducts ante-mortem and post-mortem examination of animals				3					3									3
W_HŻ4	describes and implies HACCP (Hazard Analysis and Critical Control Points) procedures				3					3									3
	SKILLS																		
	Graduate knows h			:															
	basic professiona	l sk	ills					1	-								1		_
U_OUZ1	effectively communicates with clients, veterinary surgeons and employees of the state sanitary control, state and local administration					2								3				3	
U_OUZ2	knows how to listen and explain in the language that is understandable and appropriate for the situation					2										3	2	3	
U_OUZ3	formulates clear case studies and knows how to create documentation according to the current laws and regulations, in the form understandable for the owner of the animal and clear for other veterinary surgeons			3					2							3	3	3	
U OUZ4	knows how to operate in the interdisciplinary team					2										3	2		H
U_OUZ5	appropriately interprets responsibility of the veterinary surgeon towards animal, its owner, society and							2				2		3	2				
U_OUZ6	environment evaluates economical and sociological implications of the															3			
U_OUZ7	veterinary practice understands the need of the best possible utilisation of professional skills in order to enhance the quality of											2				3	2		
	veterinary care, animal welfare and public health  Graduate knows how to organise and implem	ent	l ve	tor	ina	l rv	nra	ctic		inc	lud	inc	<u></u>						L
	knows self and employer responsibilities and obligations in				····c	<b>y</b>	Piu		,		luu	3							Г
U_OUZ8	light of the law and occupational health and safety regulations can calculate fees, knows how to issue an official invoice							3			2			3			2		
U_OUZ9	and respects rules of proper financial and medical documentation uses computer systems for effective communication,																		
U_OUZ10	accumulation, processing, analysis and propagation of information																	3	
U_OUZ11	acts within the current standards and ethical obligations																	3	
U_OUZ12	understands the need of continuous education for professional development															3		3	
U_OUZ13	can adapt professional offer to the dynamically changing situation on the work market knows his limitations and knows how to use the																		
U_OUZ14	professional advice and help of the specialists or specialised units in difficult cases																	_	
U_OUZ15	uses English and Latin medical nomenclature can communicate in Polish and knows how to use Polish						1												
U_OUZ16	professional source materials		cle:	L.		2	1												
	practical profession performs veterinary investigation in order to acquire	ıdl :	SKII	15				-											Г
U_PUZ1	precise information on single animal and group of animals (heard), and their environment	2							2						2			3	
U_PUZ2	handles animals in safe and humane way, and instructs others to do alike																		
U_PUZ3	carries out full clinical evaluation	3					1		3									3	

	performs first aid procedures for all animal species for			1	1	1	1						-1	1	- 1		_
	haemorrhage, wounds, respiratory disorders, eye and ear																
U_PUZ4	injuries, internal injuries, heart block, loss of								2								
	consciousness, cahexia, burns and tissue injuries evaluates nutritional state of the animal and ordains					t	H						_				_
U_PUZ5	information on proper animal nutrition																
	collects and safeguards the biological material, knows the																_
	rules of sample transport and basic laboratory analyses,		_	l _					_		_			_			
U_PUZ6	properly evaluates and interprets results of laboratory		3	3					3		2			3			
	analyses																
	uses diagnostic apparatuses including x-ray, ultrasound and																
U PUZ7	others, according to its manuals and health and safety						3				2			3			
0_1 027	regulations concerning animals and humans						٦				_			٦			
	o o																
U PUZ8	implements proper official epizootic procedures in case of	2								3			2				
	the law-regulated diseases					1				_			_				_
U_PUZ9	acquires and uses information on registered drugs																
	prescribes and uses drugs and medical materials according	_												_			
U_PUZ10	to current regulations, including rules of their safe storage	2												3	2	3	
	and utilisation			<u> </u>	1	+	<u> </u>						_			_	_
511744	uses methods of safe sedation, general and local														٦		
U_PUZ11	anaesthesia, and methods for pain evaluation and relief														2		
						-									_		_
U_PUZ12	choses the treatment adequate for the diagnosed disease												2		2		
	implements rules of aseptic and antiseptic surgery																
U_PUZ13	procedures, and uses proper methods of tools sterilisation													3			
	procedures, and uses proper methods of tools sternisation				<u> </u>	1											
	evaluates the need for euthanasia, properly informs the																
51174.4	owner of the animal and carries out the euthanasia																
U_PUZ14	procedure according to rules and obligations of																
	professional ethics and proper utilisation of the body																
	carries out patomorphological examination, prepares			-	╁	+						-	_	-		-	_
U PUZ15	proper protocol, collects and labels samples and												3	3			
	safeguards them for transport													-			
	performs ante-mortem and post-mortem examination and			_		T											_
U_PUZ16	examination of the products of animal origin			3													
	documents and uses documentation of the health, welfare												٦		T		
U_PUZ17	and, in certain cases, the productivity of the heard	2						2								3	
	1 7				<u> </u>												
U PUZ18	prepares the preventive scheme according to the species															3	
	specifics evaluates the risk and prepares the procedures minimising	_		-	1	1	1					-	-		_	_	_
						1											
U_PUZ19	the risk of contamination, cross-species infection and																
_	accumulation of the disease agents in veterinary facilities																
	and the environment			<u> </u>	<u> </u>	1	1										_

# PERSONAL COMPETENCES

# Graduate:

K KP1	takes responsibility for his decisions concerning humans							2			2	3	3		
N_N 1	and animals							_			_	,	٦	_	
K_KP2	observes the ethical rules and obligations				2										
K KP3	shows tolerance to beliefs and behaviour influenced by	2													
K_KF3	different sociological and cultural background														
K KP4	shows the competence in solving of the conflicts and														
K_KF4	pliability in the reactions for sociological changes													Ц	
K KP5	can critically evaluate personal actions and actions of					1									
K_KI 3	others to improve proposed actions					_								Ц	
K KP6	developed a habit of constantly updating his knowledge				2							3	2		
K_KI U	and skills				_							,			
K_KP7	knows his limitations											3			
K_KP8	considers wellbeing of his patient as a topmost priority											3			
K KP9	can cooperate with specialists of other professions for the			3			2	2		2					2
K_KF9	protection of public health			3			2	2		2					_
K_KP10	can operate under stress and duress														
K_KP11	can organise the work of a team														
K_KP12	understands the need to engage in the operations of														
K_KP12	professional and territorial organisations														
K KP13	understands the consequences of his decisions, especially									2					
K_KF13	those influencing natural environment									2					
K KP14	knows basic laws and regulations governing intellectual														
K_KF14	property														
Inne 1	has knowledge sufficient for further study in the course of		3	1									ſ		
IIIIC I	continuity of the subjects		٦												
Inne2	has other knowledge and skills								3						

# **LEARNING OUTCOMES MATRIX**

Unit: Faculty of Veterinary Medicine Field of studies: Veterinary Medicine

Level of study: Long-cycle Master's degree programme Profile of study: General Academic (GA)

	Field of studies: Veterinary Medicine				Pr	roti	iie	ΟT	St	ua	y:	Ge	ne	ra	ΙA	ca	ae	erri	IC	(G	A)												
	Т	T														м	od	ule	s														$\neg$
																	'ea		_								_					_	_
Effect symbol	Directional effects	Dog and cat diseases	Dietetics Avian diseases	Administration and legal aspects in veterinary	Fur animals diseases	Hygiene of food of animal origin Module 1	Clinical toxicology of small animals	Clinical toxicology of large nimals	Veterinary aty the border control	Reptile and amphibian dietetics	Veterinary prevention	Hygiene of food of animal origin Module 2	Milk hygiene	Rotation-Farm animal diseases	Rotation-Dog and cat diseases	S		ıgy	Behavioural medicine of cats and dogs	Clinic and laboratory diagnostics in emergency veterinary medicine	Differential diagnostics based on laboratory results	Behavioural medicine of horses	Veterinary of pig herd	Veterinary of the racing horse	Management of see food safety	Manangement of food and feed safety	Nutraceuticals in farm animals	Applied pharmacology of farm animals	Ophthalmology in small animals	Breed-related disorders	From symptoms to diagnosis - skin	Vetermary oronogy Clinical practice module 2 (summer practice)	Veterinzry inspection, meat hygiene (summer practice)
	<u> </u>	ا ۵	א וב	Ā		± √loc			Š	ž	>	Ì	≥	ĕ	ĕ	ĕ	ĕ	ĕ	ă	ਹ		ă	Š	Š	2	≥	Z	₹	0	ā	<u>Ε</u>  >	. I O	>
		Gra	dua	te l					nde	erst	an	ds:																					
					Basi	ic s	cier	nce	S																								
WW_NP1	knows and describes regular morphology of the animal organism: cells, tissues, organs and systems																																
WW_NP2	knows structure, describes and explains functions of the systems of the animal organism (respiratory, gastrointestinal, cardiovascular, urinary, nervous, locomotion, reproductive, endocrine, immune and skin)	3	3 2														3																
WW_NP3	describes and interprets development of organs and the whole organism in relation to the adult organism		2														3	3															П
WW_NP4	describes and explains metabolic processes on the molecular, cellular, organ and organism levels																															Ī	
WW_NP5	describes and explains homeostasis, neurohormonal regulation reproduction, ageing and death		2																														
WW_NP6	describes, explains and interprets rules and mechanisms governing animal health, disease and therapy, from the cellular level, through the organs, organisms, herds to the		2		3		2	2		2								3	3														

WW_INI 1	organism: cells, tissues, organs and systems																					Ш.
WW_NP2	knows structure, describes and explains functions of the systems of the animal organism (respiratory, gastrointestinal, cardiovascular, urinary, nervous, locomotion, reproductive, endocrine, immune and skin)	3	2	!								3										
/v//v/ VID3	describes and interprets development of organs and the whole organism in relation to the adult organism		2									3 3	3									
	describes and explains metabolic processes on the molecular, cellular, organ and organism levels																					
WW_NP5	describes and explains homeostasis, neurohormonal regulation reproduction, ageing and death	2																				
WW_NP6	describes, explains and interprets rules and mechanisms governing animal health, disease and therapy, from the cellular level, through the organs, organisms, herds to the whole population of animals	2			3	2	2	2				***	3	3								
WW_NP7	knows and interprets patophysiological changes in the organs and systems, biological mechanisms (including immunological) and pharmacological mechanisms facilitating recovery					2	2					***	3	3	1							
WW_NP8	identifies and describes biology of infectious agents inducing diseases transmitted between animals, animals and humans, including mechanisms of the disease transmission and organism defence systems								3			3	3			3						
WW_NP9	defines and describes genetic mechanisms, identifies genetic disorders and knows bases of the genetic engineering	2																				
10/10/ NIP1()	defines and describes mechanisms of drug action, their fate in the organism and drug-to-drug interactions					2	2								2			3	3			
WW_NP11	utilises chemoterapeutics		2	!											2						1.7	3
WW_NP12	prescribes drugs			Ĺ						1									Ţ			3
-	knows and uses English and Latin medical nomenclature																				:	3
WW_NP14	knows and uses Polish language to the effect of communication with the specialists in the veterinary and related sciences, uses Polish source materials																				3	3

	related sciences, uses i olisti source materials	-		_	_		_										_	_	_	_	_	_	_	_							
					Cli	nica	sci	iend	ces																						
	describes, explains and interprets disorders on the cellular,																											П			
W_NK1	tissue, organ, system and organism levels occurring in the	2												3							1	3	3				3	ıl	3	3	
	course of the disease	Ш																							<u> </u>			Ш		╙	L
W NK2	describes, explains and interprets mechanisms of the organ	2		2			2	2						3					3		1	3					3	2	3 3	,	
W_IVINZ	and organism pathologies	Ľ		_										3					٦		_	Ĺ			Ш,		۲	۲	3 3	1	Ш,
	describes and interprets causes and symptoms of the	il																									ı	1			
W NK3	disease, describes and interprets patomorphological	il		2		3	2	2			3			3	3			3			2 3	3 3					3	2	3 3	,	
W_IVINS	changes, uses procedures for therapy and prevention in	i l		-		٦	_	_			-			,	,			٦			۱,	<u>`</u>  `	1				ا ً ا	ا ً ا	7   3	1	
	the particular diseases	ш																			_				Щ.		ш	ш		Т.	Щ.
W NK4	implements diagnostic (including differential diagnostics)	2		2			2	2			3			3	3	3		3	2		2	3					ı	3	3	3	
**	and therapeutic procedures	Ĺ		-	4					1	J			,	,	٦	_	<u> </u>	۷_		_	Ļ	1		Ш		ш	ŭ		Ľ	₩
W NK5	carries out clinical evaluation and monitors heard health in	il		2		3					3		3		3	3					3	۱				2	ı	1		3	
	the intensive production	Ш	_	-	_	۷			1	1	Ĭ		Ĭ		١	٦	_		_	_	Ļ	1	1		╙	_	ш	Ц	_	Ľ	╙
W NK6	implements official epizootic procedures in case of the law-	il			2											3											ı	1		3	
	regulated diseases	Ш			_				<u> </u>	1						Ŭ	_	4	_		4	_	4		Ш		ш	Ш	_	Ľ	₩
	collects, analyses and correctly interprets clinical data,	il																									ı	1			
W_NK7	results of the laboratory tests and other diagnostics	2		2		3	2	2			3			3	3	3		3		3	2   3	3   3	3				ı	3	3	3	
	techniques	ш																			_				Щ.		ш	ш		Т.	Щ.
	indicates and interprets appropriate law regulations,	il																									ı	1			
W NK8	knows rules governing issuing of the verdicts and creates	il			3		1		3	ı	1	1										1	1		1		ı	ıl			1
	official opinions for the law courts, state, local and	il			۲		1		١		1	1										1	1		1		ı	ıl			1
	veterinary administration	Ш																					⊥		Ш.			ш		┸	Ш.

	I				1	1				- 1	1			1	1	1			- 1	1	1	1	1	1			1	$\top$	$\neg \neg$	П	_	7
W_NK9	knows bases of the functioning of state veterinary service, also in the aspect of public health prevention				2					3																						
					٩niı	ma	l pr	od	uct	ion				<u> </u>		<u> </u>								<u> </u>								_
W_PZ1	describes breeds within animal species, describes rules of animal husbandry and breeding										3																			Π		1
W_PZ2	describes rules for animal selection for breeding, methods																											$^{+}$	$\forall$	$\top$	T	-
	of breeding and selection										-	-	-	+	+					-	-		-				_	+	₩	$\sqcap$	+	4
W_PZ3	describes rules of animal feeding (according to the species specifics), elaborates and analyses diet compositions										3																					
W PZ4	describes and evaluates conditions for animal welfare										2	3		╁							1	3						+	+	$\vdash$	+	1
W_PZ5	describes and interprets rules of produce economics										_	3		+	-	-					_	3	_	-				+	$\dashv$	$\vdash$	_	_
_	describes and interprets rules of produce economics  describes conditions for appropriate utilisation and																											+	+	$\dagger$	+	-
W_PZ6	disposal of animal by-products and management of waste from animal production																													1	6	j
	mont animal production		,		F	00	d h	ygi	ene	9									!	_								<del></del>				_
	describes and interprets methods of consumers health																													1		
W_HŻ1	protection by the appropriate organ responsible for the production of foods of animal origin				3		3						3 3	3													2			1	3	3
	-											1		+	-						+							+	+	$\vdash$	+	-
W_HŻ2	describes, interprets and evaluates conditions of hygiene and technology of production, food safety, also uses				3		3						3 3	3										2	2						3	3
	appropriate law regulations of the veterinary supervision																															
W_HŻ3	conducts ante-mortem and post-mortem examination of animals																															Ī
W_HŻ4	describes and implies HACCP (Hazard Analysis and Critical						3						3 3	2										2	2			+	$\dagger \dagger$		3	2
VV_1124	Control Points) procedures					_	SKI	115					٠ [	1											_						`	Ĺ
			(	Gra	dua				, s h	ow	to	:																				
<u> </u>	I off a bit all a second and a second a second and a second a second and a second a		_	ba	sic	pro	ofes	sio	nal	ski	lls																	_		_	_	_
U_OUZ1	effectively communicates with clients, veterinary surgeons and employees of the state sanitary control, state and local																	3		3				2	2						3	
	administration knows how to listen and explain in the language that is											_	-	-	-	-				_	-		-	-			_	+	#4	$\vdash$	_	_
U_OUZ2	understandable and appropriate for the situation		2								2	3						3	3	3		3	3	2	2					Ш		
	formulates clear case studies and knows how to create																													1		
U_OUZ3	documentation according to the current laws and regulations, in the form understandable for the owner of														3	3		3		3			3							1		
	the animal and clear for other veterinary surgeons																															
U_OUZ4	knows how to operate in the interdisciplinary team																			3			3					I	$\blacksquare$	J	I	]
U OUZ5	appropriately interprets responsibility of the veterinary surgeon towards animal, its owner, society and																			3		2	3			3	3			1		
_	environment																											_	$\downarrow \downarrow$	+	_	_
U_OUZ6	evaluates economical and sociological implications of the veterinary practice																						3									
U OUZ7	understands the need of the best possible utilisation of professional skills in order to enhance the quality of																	3					2	1	1							
0_0027	veterinary care, animal welfare and public health																						٦	-	_					Ш		
	Graduate knows how knows self and employer responsibilities and obligations in	to	org	ani	se a	and	d in	npl	em	ent	ve	teri	nar	уp	ract	tice	, in	clu	ding	3: 	1			1				_	$\overline{}$	П	_	7
U_OUZ8	light of the law and occupational health and safety																													1		
	regulations can calculate fees, knows how to issue an official invoice											-			-								-					+	₩	$\vdash$	+	-
U_OUZ9	and respects rules of proper financial and medical																															
	documentation uses computer systems for effective communication,														+								-					+	+		+	-
U_OUZ10	accumulation, processing, analysis and propagation of information																															
U OUZ11	acts within the current standards and ethical obligations														3													$^{+}$	$\forall$	$\top$	T	-
	understands the need of continuous education for		_									-			Ť								+					+	₩	$\vdash$	+	-
U_OUZ12	professional development		2																				3					4	Ш	$\dashv$	4	_
U_OUZ13	can adapt professional offer to the dynamically changing situation on the work market	L			_	_									⊥		L								L							
U OUZ14	knows his limitations and knows how to use the professional advice and help of the specialists or		1		1	1				1	Ī	T	Ī						Ī	Ī	Ţ						T			ıT		
_	specialised units in difficult cases				_					$\rfloor$			$\perp$	$\perp$	$\perp$		_				_							$\perp$	Ш	Ц	$\perp$	_
U_OUZ15	uses English and Latin medical nomenclature can communicate in Polish and knows how to use Polish	H	-	-	$\dashv$	-	$\dashv$	$\dashv$	$\dashv$	$\dashv$	-	+	+	+	+	-	_		+	+	+	+	+	-	H	$\dashv$	+	+	$\dashv$	$\dashv$	+	4
U_OUZ16	professional source materials																											$\perp$		Ш		
	performs veterinary investigation in order to acquire		р	rac	tica	ıl p	rof	ess	ion	al s	kill	S	-	1	1	1			1		-,	Т		1		ı		_	_	$\overline{}$	_	٦
U_PUZ1	precise information on single animal and group of animals		2	2							2	3		3	3	3		3	3			3	3								3	
<u></u>	(heard), and their environment handles animals in safe and humane way, and instructs		_	-	$\dashv$				H	$\dashv$	+	$\dashv$	+	+	+	-	_		4	+	+	+	-	-			$\dashv$	+	+	$\dashv$	+	+
U_PUZ2	others to do alike	Ļ			_					$\downarrow$	_	_	$\downarrow$	$\downarrow$	1	3	Ļ		_	_	$\downarrow$	_					_	$\downarrow$	$\perp \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \!$	$\dashv$	$\downarrow$	4
U_PUZ3	carries out full clinical evaluation performs first aid procedures for all animal species for	3	-		$\dashv$				$\dashv$	$\dashv$	$\dashv$	+	+	3	3	-	3	H	$\dashv$	+	+	+	+	-			+	+	+	4	3	+
U_PUZ4	haemorrhage, wounds, respiratory disorders, eye and ear	3								2					3																	
	injuries, internal injuries, heart block, loss of consciousness, cahexia, burns and tissue injuries	L			_	_											L								L							
U_PUZ5	evaluates nutritional state of the animal and ordains		1		1	1				1	2	T					3		1	Ī	Ţ					3	T			ıT		
	information on proper animal nutrition collects and safeguards the biological material, knows the		_		$\dashv$					$\dashv$	1	$\dashv$	$\dagger$	$\dagger$	$\dagger$	$\vdash$	-		$\dashv$	$\dashv$	$\dagger$	+	t	$\vdash$			$\dashv$	+	$\forall$	$\dashv$	+	$\forall$
U_PUZ6	rules of sample transport and basic laboratory analyses, properly evaluates and interprets results of laboratory																	3			3					3						
	analyses				_					_			1	$\downarrow$	$\perp$						_	_						$\perp$	$\downarrow \downarrow$	$\downarrow \downarrow$	$\downarrow$	╛
11 50:22	uses diagnostic apparatuses including x-ray, ultrasound and																					,										
U_PUZ7	others, according to its manuals and health and safety regulations concerning animals and humans																					3										
U PUZ8	implements proper official epizootic procedures in case of				2					$\dashv$		$\dashv$	$\dagger$	$\dagger$	+		3		$\dashv$	$\dashv$	$\dagger$	+	1				$\dashv$	+	$\forall$	+	+	┪
0_1 020	the law-regulated diseases				_										1		ر											$oldsymbol{\perp}$	لــــــــــــــــــــــــــــــــــــــ	丄	$\perp$ L	

U_PUZ9	acquires and uses information on registered drugs	ightharpoons										3						3			
U_PUZ10	prescribes and uses drugs and medical materials according to current regulations, including rules of their safe storage and utilisation									3	3							3		3	
U_PUZ11	uses methods of safe sedation, general and local anaesthesia, and methods for pain evaluation and relief																				
U_PUZ12	choses the treatment adequate for the diagnosed disease								(1)	3	3	3	3			3					
U_PUZ13	implements rules of aseptic and antiseptic surgery procedures, and uses proper methods of tools sterilisation																				
U_PUZ14	evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body													1	2						
U_PUZ15	carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport		2								3	3									
U_PUZ16	performs ante-mortem and post-mortem examination and examination of the products of animal origin						3	3													3
U_PUZ17	documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard									3										3	
U_PUZ18	prepares the preventive scheme according to the species specifics		2									3					1	3		3	
U_PUZ19	evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment				OMP							3						3			

#### PERSONAL COMPETENCES

#### Graduate:

_					Gra	aua	ate:	:																	
K_KP1	takes responsibility for his decisions concerning humans and animals		1										3			2		3			3			3	
K_KP2	observes the ethical rules and obligations	П												3											
K_KP3	shows tolerance to beliefs and behaviour influenced by different sociological and cultural background																				L				
K_KP4	shows the competence in solving of the conflicts and pliability in the reactions for sociological changes																								
K_KP5	can critically evaluate personal actions and actions of others to improve proposed actions							2					3		3				1	1					
K_KP6	developed a habit of constantly updating his knowledge and skills		2										3				***	3							
K_KP7	knows his limitations	П	2										3					3							
K_KP8	considers wellbeing of his patient as a topmost priority												3	3			1	3							
K_KP9	can cooperate with specialists of other professions for the protection of public health				:	2		2		3	3		3						1	1					3
K_KP10	can operate under stress and duress	il																							
K_KP11	can organise the work of a team	П																	1	1					
K_KP12	understands the need to engage in the operations of professional and territorial organisations																								
K_KP13	understands the consequences of his decisions, especially those influencing natural environment																				3				
K_KP14	knows basic laws and regulations governing intellectual property			1																					
Inne 1	has knowledge sufficient for further study in the course of continuity of the subjects	Ш													3										
Inne2	has other knowledge and skills	ı				2	2 2		2													1			

#### **LEARNING OUTCOMES MATRIX**

Unit: Faculty of Veterinary Medicine Field of studies: Veterinary Medicine

regulated diseases

Level of study: Long-cycle Master's degree programme

Profile of study: General Academic (GA)

		Modules Year VI
Effect symbol	Directional effects	Rotation – Veterinary laboratory diagnostics Herd health management Cardiology diagnostics in small animals Eardiology diagnostics in small animals Cardiology diagnostics in small animals Email animal bone and joint surgery Daily clinical practice Clinical course of small animal surgery Small animal demtistry Small animal demtistry Surgery of genital organs of dogs and cats (solo castration) Equine diseases - clinical cases Common surgical procedures in horses Ultrasound diagnostics of the reproductive tract in farm animals Horse arthroscoopy Horse arthroscoopy Horse arthroscoopy Horse arthroscoopy Mastitis prevention and treatement in dairy herds Waterinary oncology Ultrasound daignostics in companion animals Intensive care of dogs and cats Management of diagnosis - advanced course Communication and negotations skills in veterinary practice Exotic animals medicine Clinical course of exotic animal diseases (200) Management of veterinary practice Introduction to cynology and dog show essentials Herd health management in small ruminants Clinical anaesthesiology Nutraceuticals in farm animals Individual research mainer completed with discertation

#### Modules

#### Graduate knows and understands:

Basic sciences knows and describes regular morphology of the animal WW NP1 organism: cells, tissues, organs and systems knows structure, describes and explains functions of the systems of the animal organism (respiratory, 3 WW NP2 3 gastrointestinal, cardiovascular, urinary, nervous, locomotion, reproductive, endocrine, immune and skin) describes and interprets development of organs and the WW\_NP3 whole organism in relation to the adult organism describes and explains metabolic processes on the 3 WW NP4 molecular, cellular, organ and organism levels describes and explains homeostasis, neurohormonal 3 WW NP5 regulation reproduction, ageing and death describes, explains and interprets rules and mechanisms governing animal health, disease and therapy, from the WW NP6 cellular level, through the organs, organisms, herds to the whole population of animals knows and interprets patophysiological changes in the organs and systems, biological mechanisms (including WW NP7 3 3 2 immunological) and pharmacological mechanisms facilitating recovery identifies and describes biology of infectious agents inducing diseases transmitted between animals, animals 3 3 WW NP8 3 and humans, including mechanisms of the disease transmission and organism defence systems defines and describes genetic mechanisms, identifies WW\_NP9 genetic disorders and knows bases of the genetic engineering defines and describes mechanisms of drug action, their 3 WW\_NP10 3 3 3 3 fate in the organism and drug-to-drug interactions WW\_NP11 utilises chemoterapeutics 3 3 3 3 3 3 WW\_NP12 prescribes drugs 3 3 WW\_NP13 knows and uses English and Latin medical nomenclature 3 knows and uses Polish language to the effect of WW NP14 communication with the specialists in the veterinary and related sciences, uses Polish source materials Clinical sciences describes, explains and interprets disorders on the cellular W\_NK1 tissue, organ, system and organism levels occurring in the 3 3 3 3 3 3 3 3 course of the disease describes, explains and interprets mechanisms of the 3 3 3 3 3 3 3 W NK2 3 3 3 3 3 3 organ and organism pathologies describes and interprets causes and symptoms of the disease, describes and interprets patomorphological 3 3 3 3 3 3 3 3 3 3 3 W NK3 3 3 3 3 3 changes, uses procedures for therapy and prevention in the particular diseases implements diagnostic (including differential diagnostics) 3 3 3 3 3 W NK4 3 3 3 3 3 3 3 3 3 and therapeutic procedures carries out clinical evaluation and monitors heard health ir W\_NK5 2 3 3 3 3 3 the intensive production implements official epizootic procedures in case of the law W\_NK6

														_				_		_			_					
W_NK7	collects, analyses and correctly interprets clinical data, results of the laboratory tests and other diagnostics	3	3			3		3	3		3	3	3 3	3	3				3	3	3					3		
	techniques indicates and interprets appropriate law regulations,						_			4		4	_					4		-	-	Щ	$\vdash \vdash$	$\dashv$	4	$\sqcup$	4	+
	knows rules governing issuing of the verdicts and creates																						ı					
W_NK8	official opinions for the law courts, state, local and	3													3								3		3			
	veterinary administration																					Ш	Ш	$\perp$	$\bot$	Ш	$\perp$	
MA NIKO	knows bases of the functioning of state veterinary service,	3																					ı					
W_NK9	also in the aspect of public health prevention	3																					ı					
ļ			Α	nim	nalı	pro	duc	tio	n																			
W_PZ1	describes breeds within animal species, describes rules of																						П	П	3		T	
	animal husbandry and breeding	H					_		_	_	-		-	-	-		_	4	-	+	<u> </u>	$\sqcup$	$\vdash$	$\dashv$	<del> </del>	$\dashv$	4	+
W_PZ2	describes rules for animal selection for breeding, methods of breeding and selection																						ı					
										1								Ť		T		H	Πİ	$\dashv$	+	$\top \top$	$\top$	十一
W_PZ3	describes rules of animal feeding (according to the species specifics), elaborates and analyses diet compositions																						ı		3	3		3
	specifically enaborates and analyses are compositions	H							_	4	_		+	+	-		_	-	_	1	<u> </u>	H	$\vdash$	+	+	+	+	+
W_PZ4	describes and evaluates conditions for animal welfare		3																				ı	3	3	3		
W_PZ5	describes and interprets rules of produce economics																					П		T	T		T	
	describes conditions for appropriate utilisation and																						П					
W_PZ6	disposal of animal by-products and management of waste																						ı					
	from animal production	Ш		Fo	hod	hvs	gien	ne.		!_					<u> </u>					<u> </u>	<u> </u>	Ш						
	d				Jou	1198	Sici						T		I							П	П	Т	Т	ПТ	$\neg$	$\Box$
W_HŻ1	describes and interprets methods of consumers health protection by the appropriate organ responsible for the																						ı					
W_1121	production of foods of animal origin																						ı					
		Н					_	-		+	-	+	+	+	-		-	+	-	+	+	H	$\Box$	+	+	++	+	+
<del></del>	describes, interprets and evaluates conditions of hygiene																						ı					
W_HŻ2	and technology of production, food safety, also uses																						ı					
	appropriate law regulations of the veterinary supervision	Н		Щ			-		_	+	-	+	+	-	1_	Н	-	+	+	+	-	$\vdash$	$\dashv$	$\dashv$	+	$+\!\!\!+\!\!\!\!+$	+	+
W_HŻ3	conducts ante-mortem and post-mortem examination of animals																						,					
W_HŻ4	describes and implies HACCP (Hazard Analysis and Critical	3																				Ħ	$\Box$	T	+	Ħ	$\exists$	$\top$
VV_1124	Control Points) procedures	3				,	_																Ш		$\bot$	Ш	丄	Ш
		_				(ILI		<b>.</b>																				
							ws l																					
	effectively communicates with clients, veterinary surgeons	ΠĨ	,usi	СР		233	0110	JI 3	KIIIS	<u>.</u> T		Ī		T	I			T		T	T	П	П	$\top$	$\top$	ТТ	$\neg$	$\top$
U_OUZ1	and employees of the state sanitary control, state and																			3		3	ı					
	local administration									_		_	_					_	_	-	_	Ш	Ш	_	4	$\perp \downarrow$	_	
U_OUZ2	knows how to listen and explain in the language that is understandable and appropriate for the situation		3																	3		3	ı					2
	formulates clear case studies and knows how to create									$\dashv$	-		+	+			-					H	$\dashv$	$\dashv$	+	$\dagger \dagger$	+	+
	documentation according to the current laws and																						ı					
U_OUZ3	regulations, in the form understandable for the owner of					3	3			3			3	3									ı					
	the animal and clear for other veterinary surgeons																						ı					
U_OUZ4	knows how to operate in the interdisciplinary team				4	3	3															П		T	T	$\Box$	T	2
	appropriately interprets responsibility of the veterinary																						П	П				
U_OUZ5	surgeon towards animal, its owner, society and environment											13	3				3		3				ı					
01176	evaluates economical and sociological implications of the									$\dashv$	-		+	+			-					H	$\dashv$	$\dashv$	_	$\dagger \dagger$	+	+
U_OUZ6	veterinary practice																						Ш		3			
01177	understands the need of the best possible utilisation of					2												,					ı					
U_OUZ7	professional skills in order to enhance the quality of veterinary care, animal welfare and public health					3												3					ı					
	Graduate knows how to o	rga	nis	e a	nd	imp	olen	ner	nt v	ete	rina	ary	pra	ctic	e, iı	nclu	din	g:		-		ш,				+-+		
	knows self and employer responsibilities and obligations in											Ī																
U_OUZ8	light of the law and occupational health and safety	3				3																	ı					
	regulations can calculate fees, knows how to issue an official invoice	Н	-	H	$\dashv$	-	+	4	+	+	+	+	+	+	-	Н	+	+	+	+	$\vdash$	Н	$\dashv$	+	+	${++}$	+	+
U_OUZ9	and respects rules of proper financial and medical	3																				3	,					
	documentation	Ш		Ш			_		_	_		$\perp$	$\perp$			Ц	_	$\perp$	$\perp$		_	Ш	Щ	$\perp$	$\bot$	$\downarrow \downarrow$	4	Щ
U OUZ10	uses computer systems for effective communication, accumulation, processing, analysis and propagation of																	3					,					
0_00210	information																	٦					,					
U OUZ11	acts within the current standards and ethical obligations	3			3	3	3																					
5_55211	understands the need of continuous education for	Ĭ	_	$\vdash$	_	_	_	4	4	4	-	+	+	-	-	H	4	+	+	+	-	$\sqcup$	$\dashv$	$\dashv$	+	$\dashv$	+	$+\!\!\!\!+\!\!\!\!\!+$
U_OUZ12	professional development														3								,					3
U_OUZ13	can adapt professional offer to the dynamically changing	П					1	1	7	1	1	$\dagger$	T		T	Ħ	$\dashv$	1	T	T		П	T	$\top$	3	Ħ	十	3
0_00213	situation on the work market	Щ					_	4	4	4	_	4	-	-		Ц	4	4	+	1	1	Щ	Щ	4	_	$\sqcup$	4	4
U 011714	knows his limitations and knows how to use the professional advice and help of the specialists or																	3					,					
	specialised units in difficult cases						_								1		_	_					L	_	_	1	_	
U_OUZ15	uses English and Latin medical nomenclature									╛	╛	1	1	I			╛			L			╛	丁	ユ		コ	
U OUZ16	can communicate in Polish and knows how to use Polish	П				٦	T	7	T	T	T	T	Τ			П	T	T	Τ			П	Ι٦	, Т	T		T	
	professional source materials		) (*)	Cal	pr	of or	ssio	na!	:رای	lle					<u> </u>					1	<u> </u>	Ш				Ш	丄	Ш
	performs veterinary investigation in order to acquire	μιά	acti	cdi	hic	7168	010	ııdl	sκl	115	Т	T	Т	T	T	П	1	T	T	Ţ	T	$\Box$	П	一	$\top$	ПП	$\neg$	egthinspace = 1
U_PUZ1	precise information on single animal and group of animals		3	3	3			3	3	3	3	2	3	3	3	3		3		3		3	3	3				
	(heard), and their environment	Щ		Щ			_	_	_	4	_	4	$\bot$	-		Ц	_	$\downarrow$	$\downarrow$	-	1	$\sqcup$	Щ	$\perp$	$\bot$	$\sqcup$	4	$\perp \!\!\! \perp \!\!\! \mid$
U_PUZ2	handles animals in safe and humane way, and instructs others to do alike			3								2				3		3					3	3				
U_PUZ3	carries out full clinical evaluation	H		3	3		3	3	3	3	3	$\dagger$	3	3	3	3	$\dashv$	3	$\dagger$	T	1	H	3	$\top$	+	3	+	3
	performs first aid procedures for all animal species for	П					1	T	1	7	T	T	Ť	Ť	Ť		7	T	T			П	T	T	十	Ħ	ヿ゙	ᅦ
U_PUZ4	haemorrhage, wounds, respiratory disorders, eye and ear			3	3		3								3					3			,					
	injuries, internal injuries, heart block, loss of consciousness. cahexia. burns and tissue injuries																						,					
<b></b>	reonsciousitess, carrenia, putitis attu tissue ittiuttes							1					_	-1	-					-						لل	_	

U PUZ5	evaluates nutritional state of the animal and ordains																		3	3	Т			3	٦
U_PUZ6	information on proper animal nutrition collects and safeguards the biological material, knows the rules of sample transport and basic laboratory analyses, properly evaluates and interprets results of laboratory	3		3		3	3		3					3					3	3	1	3		3	_
	analyses																				$\downarrow$			Ц	
U_PUZ7	uses diagnostic apparatuses including x-ray, ultrasound and others, according to its manuals and health and safety regulations concerning animals and humans	3								3	3	3		3	3 3	3									
U_PUZ8	implements proper official epizootic procedures in case of the law-regulated diseases											3						3							
U_PUZ9	acquires and uses information on registered drugs																		3					Ш	
U_PUZ10	prescribes and uses drugs and medical materials according to current regulations, including rules of their safe storage and utilisation					3	3	3				3										3			
U_PUZ11	uses methods of safe sedation, general and local anaesthesia, and methods for pain evaluation and relief			3																			3		
U_PUZ12	choses the treatment adequate for the diagnosed disease		1	3	3	3	3					3					3		3	3					
U_PUZ13	implements rules of aseptic and antiseptic surgery procedures, and uses proper methods of tools sterilisation	3									3		3		3									3	
U_PUZ14	evaluates the need for euthanasia, properly informs the owner of the animal and carries out the euthanasia procedure according to rules and obligations of professional ethics and proper utilisation of the body	3								3					3			3							
U_PUZ15	carries out patomorphological examination, prepares proper protocol, collects and labels samples and safeguards them for transport																		3						
U_PUZ16	performs ante-mortem and post-mortem examination and examination of the products of animal origin																							Ш	
U_PUZ17	documents and uses documentation of the health, welfare and, in certain cases, the productivity of the heard							3					3												
U_PUZ18	prepares the preventive scheme according to the species specifics																		3					3	
U_PUZ19	evaluates the risk and prepares the procedures minimising the risk of contamination, cross-species infection and accumulation of the disease agents in veterinary facilities and the environment	3										3													

#### PERSONAL COMPETENCES

# Graduate:

K_KP1	takes responsibility for his decisions concerning humans	H									3			3			3				3	H		
	and animals	$\vdash$		_			-	+-	-	_	+	_	$\vdash$		_		+	₩	+	+	+	$\vdash \vdash$	+	4
K_KP2	observes the ethical rules and obligations	ш									_ [3	3					<u> </u>	Ш	_			ш	1	Ĺ
К_КРЗ	shows tolerance to beliefs and behaviour influenced by different sociological and cultural background	]								:	3						3							
K_KP4	shows the competence in solving of the conflicts and pliability in the reactions for sociological changes	Ì															3							
K_KP5	can critically evaluate personal actions and actions of others to improve proposed actions					3					3	3	3				3			3				
K_KP6	developed a habit of constantly updating his knowledge and skills				3												3							
K_KP7	knows his limitations				3												3				3			
K_KP8	considers wellbeing of his patient as a topmost priority			3			3										3							
K_KP9	can cooperate with specialists of other professions for the protection of public health																							
K_KP10	can operate under stress and duress	ll															3					3		
K_KP11	can organise the work of a team	П														3				T				1
K_KP12	understands the need to engage in the operations of professional and territorial organisations																							
K_KP13	understands the consequences of his decisions, especially those influencing natural environment																							
K_KP14	knows basic laws and regulations governing intellectual property																					Ш	3	3
Inne 1	has knowledge sufficient for further study in the course of continuity of the subjects																			2	2			
Inne2	has other knowledge and skills	Π															3			2	2			1

# Opinia Samorządu Studentów Wydziału Medycyny Weterynaryjnej o nowym programie studiów jednolitych studiów magisterskich stacjonarnych i niestacjonarnych na kierunku Weterynaria od roku 2019/20

Przedstawiony przez Komisję ds. Dydaktyki nowy program jednolitych studiów magisterskich na kierunku Weterynaria (od roku 2019/20) został – w ocenie Samorządu Wydziałowego – uznany za pozytywną zmianę w stosunku do obecnie realizowanego programu studiów.

Nowy program pozwala na podniesienie i podkreślenie znaczenia wiedzy weterynaryjnej oraz jej praktycznego zastosowania w pracy zawodowej. Naszym zdaniem proponowany program jednolitych studiów magisterskich tworzy szeroką i bardziej zróżnicowaną ofertę programową, pozwalając tym samym na lepsze przygotowanie studentów do wykonywania zawodu lekarza.

W zaproponowanym programie studiów za szczególnie cenne uważamy:

- wprowadzenie nowych przedmiotów ( modele komunikacyjne w relacji lekarz-właściciel, etyka zawodowa lekarza weterynarii), które poszerzają naszą wiedzę w zakresie kompetencji społecznych
- wprowadzenie przedmiotów, które zostały zaproponowane przez studentów tj. Neonatologia małych zwierząt, Nowoczesne techniki obrazowania, czy Geriatria psów i kotów. Dzięki takim zabiegom, Wydział postępuje wspólnie z rozwojem w dziedzinie weterynarii
- poszerzenie wiedzy i umiejętności z zakresu technik obrazowania dla różnych gatunków zwierząt,
   co przygotuje nas w dużym stopniu do lepszego analizowania jednego z podstawowych
   w weterynarii badań diagnostycznych

Podsumowując: w naszej opinii przygotowany program studiów w interesujący sposób łączy wiedzę z praktyką oraz wymagania uniwersyteckie z koniecznością przygotowania zawodowego studentów. Uważamy, że program ten będzie bardziej atrakcyjny dla kandydatów na studia na kierunku Weterynaria niż aktualnie obowiązujący.

W imieniu RWSS WMW SGGW

Przewodnicząca Rady Wydziałowej Samorządu Studentów SGGW Wydziału Medycyny Weterynaryjnej