



**CATALOG OF ELECTIVE DISCIPLINES**  
For students in the direction of preparation 6B091 Veterinary  
Brief description of the elective disciplines of the educational program

EPG	EP	Form of education	The name of discipline	Code of subject	Discipline subject cycle	Component	Number of credits	Level of training	Cafedra	Course	Academic period	Pre-requisites	Post-requisites	Brief content of the discipline	Key learning outcomes	Name of the alternative discipline
B083 - «Veterinary science»	6B09102 - «Food safety»	Full-time (bachelor year) or 5 year) trimester	Basics of anti-corruption culture	OAK 1123	GER	Elective subjects	5.0	Bachelor	Economy	1	3	Higher mathematics, Philosophy, History of Kazakhstan	Management in veterinary business 1	The discipline examines the theoretical and methodological foundations of the concept of "corruption" and examines the improvement of socio-economic relations of the Kazakh society as a condition for combating corruption. Psychological features of the nature of corrupt behavior formation of anti-corruption culture. Features of formation of anti-corruption culture of youth, ethnic features of formation of anti-corruption culture, moral and ethical responsibility for corruption in various spheres. Discipline allows you to learn about legal responsibility for corruption offenses	Analyze in a logical and quantitative way the conditions for the development of production and evaluate the competitiveness of created products on the principles of engineering, study innovative entrepreneurship and anti-corruption culture, formulate inventions	Basics of economics and law. Innovative entrepreneurship. Introduction to leadership in education. Оурана трыда и жоысаыстыык
B083 - «Veterinary science»	6B09102 - «Food safety»	Full-time (bachelor year) or 5 year) trimester	Оурана трыда и жоысаыстыык	OTBZ 2208	GER	Elective subjects	5.0	Bachelor	Mechanization of technological processes	1	3	human society and rights	Epidemiological monitoring and organization of veterinary events. Internal animal diseases, Internship, Laboratory science in veterinary, Management in veterinary 1, Organization of veterinary business 1, Parasitology, and invasive animal diseases 1, Pregraduation practice, Technology, sanitary and veterinary-sanitary examination of meat and dairy products 1, The veterinary, Virology, Veterinarian control at the border and transport, Veterinary epidemiology 1, Veterinary hygiene 2, Veterinary, obstetrics and gynecology, Veterinary pharmacology, and toxicology 1, Veterinary-sanitary examination of livestock and poultry products 1, Veterinary-sanitary examination of products of plant growing, fish farming and beekeeping	Make calculations in heat engineering, thermodynamics and electrical engineering, choose the correct operation of electrical and thermal equipment, analyze hazardous and harmful production factors, study the environment and life safety requirements	Basics of anti-corruption culture. Basics of economics and law. Innovative entrepreneurship. Introduction to leadership in education	
B083 - «Veterinary science»	6B09102 - «Food safety»	Full-time (bachelor year) or 5 year) trimester	Basics of economics and law	OEP 1128	GER	Elective subjects	5.0	Bachelor	Economy	1	3	fundamentals of economics and law, philosophy	Epidemiological monitoring and organization of veterinary events, Management in veterinary 1, Organization of veterinary business 1	Analyze in a logical and quantitative way the conditions for the development of production and evaluate the competitiveness of created products on the principles of engineering, study innovative entrepreneurship and anti-corruption culture, formulate inventions	Basics of anti-corruption culture. Basics of economics and law. Innovative entrepreneurship. Introduction to leadership in education. Оурана трыда и жоысаыстыык	
B083 - «Veterinary science»	6B09102 - «Food safety»	Full-time (bachelor year) or 5 year) trimester	Introduction to leadership in education	VLO 1129	GER	Elective subjects	5.0	Bachelor	Профессиональное образование	1	3	Cultural studies and psychology, History of Kazakhstan, Political science and sociology	Internship, Management in veterinary 1, Organization of veterinary business 1	To organize highly efficient operation of machines, apparatus, machinery and technological equipment in production, to show leadership qualities	Basics of anti-corruption culture. Basics of economics and law. Innovative entrepreneurship. Оурана трыда и жоысаыстыык	

B083 - «Veterinary science»	6B0910	Full-time (bachelor or 5 year) trimester	Innovative entrepreneurship	IP 1130	GER	5.0	Elective subjects	Bachelor	Economy	1	3	Information and communication technologies	Management in veterinary business 1	Organization of veterinary business 1	From students' knowledge of the fundamental concepts of innovative development, modern approaches to the implementation of entrepreneurial activity in the field of new technologies to ensure the competitiveness of an innovative enterprise on the market. Understand the economic essence of innovative entrepreneurship, business planning, venture financing and know the types of firms with venture capital. Possess skills in risk management, human resource management, innovative management and innovative processes, as a condition for economic growth	Analyze in a logical and quantitative way the conditions for the development of production and evaluate the competitiveness of created products on the principles of engineering, study innovative entrepreneurship and anti-corruption culture, formulate inventions	Basics of anti-corruption culture. Basics of economics and law. Introduction to leadership in education. Охрана труда и безопасность жизнедеятельности
B083 - «Veterinary science»	6B0910	Full-time (bachelor or 5 year) trimester	Histology with the basics of cytology	GOC 2205	BS	5.0	Elective subjects	Bachelor	Microbiology and biotechnology	2	1	General biology	Animal physiology and biochemistry 3	Animal physiology and biochemistry 2, Animal physiology and biochemistry 3	ON 2. To formulate the macro- and microorganisms' zoological systematics and morphological features of organs and systems' structure.	ON 2. To formulate the macro- and microorganisms' zoological systematics and morphological features of organs and systems' structure.	Private histology and embryology of animals
B083 - «Veterinary science»	6B0910	Full-time (bachelor or 5 year) trimester	Private histology and embryology of animals	ChGE Zh 2269	BS	5.0	Elective subjects	Bachelor	Microbiology and biotechnology	2	1	General biology	Animal physiology and biochemistry 3	Animal physiology and biochemistry 2, Animal physiology and biochemistry 3	Formulate zoological systematics, determine the anatomical and morphological features of the structure of organs and systems of the animal body, understand the essence of physiological and biochemical processes in the animal body, master the methods of microscopic study of cells, tissues and organ systems	Formulate zoological systematics, determine the anatomical and morphological features of organs and systems' structure.	Histology with the basics of cytology
B083 - «Veterinary science»	6B0910	Full-time (bachelor or 5 year) trimester	Zoology	Zoo 2216	BS	5.0	Elective subjects	Bachelor	Microbiology and biotechnology	2	1	General biology	Animal physiology and biochemistry 2	Animal physiology and biochemistry 2, Animal physiology and biochemistry 3, Veterinary-sanitary examination of livestock and poultry products 1, Veterinary-sanitary examination of livestock and poultry products 2	ON 2. To formulate the macro- and microorganisms' zoological systematics and morphological features of organs and systems' structure.	ON 2. To formulate the macro- and microorganisms' zoological systematics and morphological features of organs and systems' structure.	Zoogeography
B083 - «Veterinary science»	6B0910	Full-time (bachelor or 5 year) trimester	Zoogeography	Zoo 2264	BS	5.0	Elective subjects	Bachelor	Охотничье хозяйство	2	1	General biology	Animal physiology and biochemistry 2	Animal physiology and biochemistry 2, Animal physiology and biochemistry 3, Veterinary-sanitary examination of livestock and poultry products 1, Veterinary-sanitary examination of livestock and poultry products 2	ON 2. To formulate the macro- and microorganisms' zoological systematics and morphological features of organs and systems' structure.	ON 2. To formulate the macro- and microorganisms' zoological systematics and morphological features of organs and systems' structure.	Zoology
B083 - «Veterinary science»	6B0910	Full-time (bachelor or 5 year) trimester	Veterinary genetics with the basics of biostatistics	VGO B 2208	BS	5.0	Elective subjects	Bachelor	Microbiology and biotechnology	2	1	Histology, morphology, informatics, mathematics, microbiology, biorganic chemistry and organic chemistry, physiologists	Feeding of animals 1, Pathology of animals 2, Pathology of animals 3, Veterinary hygiene 1, Veterinary hygiene 2, Veterinary hygiene 3, Veterinary obstetrics and gynecology	Feeding of animals 1, Pathology of animals 2, Pathology of animals 3, Veterinary hygiene 1, Veterinary hygiene 2, Veterinary hygiene 3, Veterinary obstetrics and gynecology	ON 3. To explain the inheritance patterns of living organisms, signs changing and to master the biometric processing skills of primary material.	ON 3. To explain the inheritance patterns of living organisms, signs changing and to master the biometric processing skills of primary material.	Veterinary genetics with the basics of animal selection
B083 - «Veterinary science»	6B0910	Full-time (bachelor or 5 year) trimester	Veterinary genetics with the basics of animal selection	VGOS Zh 2271	BS	5.0	Elective subjects	Bachelor	Microbiology and biotechnology	2	1	Histology, morphology, informatics, mathematics, microbiology, biorganic chemistry and organic chemistry, physiologists	Feeding of animals 1, Pathology of animals 2, Veterinary microbiology 1, Veterinary microbiology 2, Veterinary pharmacology and toxicology 1, Veterinary pharmacology and toxicology 2	Feeding of animals 1, Pathology of animals 2, Veterinary microbiology 1, Veterinary microbiology 2, Veterinary pharmacology and toxicology 1, Veterinary pharmacology and toxicology 2	ON 3. To explain the inheritance patterns of living organisms, signs changing and to master the biometric processing skills of primary material.	ON 3. To explain the inheritance patterns of living organisms, signs changing and to master the biometric processing skills of primary material.	Veterinary genetics with the basics of biostatistics
B083 - «Veterinary science»	6B0910	Full-time (bachelor or 5 year) trimester	Laboratory diagnostics in veterinary	LDV 2209	BS	5.0	Elective subjects	Bachelor	Veterinary medicine	2	2	animal morphology, histology with the basics of cytology, zoology, animal physiology, analytical and physico-colloid chemistry	Pathology of animals 1, Pathology of animals 2, Veterinary microbiology 1, Veterinary microbiology 2, Veterinary pharmacology and toxicology 1, Veterinary pharmacology and toxicology 2	Pathology of animals 1, Pathology of animals 2, Veterinary microbiology 1, Veterinary microbiology 2, Veterinary pharmacology and toxicology 1, Veterinary pharmacology and toxicology 2	ON 3. To explain the inheritance patterns of living organisms, signs changing and to master the biometric processing skills of primary material.	ON 3. To explain the inheritance patterns of living organisms, signs changing and to master the biometric processing skills of primary material.	Laboratory science in veterinary
B083 - «Veterinary science»	6B0910	Full-time (bachelor or 5 year) trimester	Laboratory science in veterinary	LDV 2272	BS	5.0	Elective subjects	Bachelor	Veterinary sanitation	2	2	animal morphology, histology with the basics of cytology, zoology, animal physiology, analytical and physico-colloid chemistry	Pathology of animals 1, Pathology of animals 2, Veterinary microbiology 1, Veterinary microbiology 2, Veterinary pharmacology and toxicology 1, Veterinary pharmacology and toxicology 2	Pathology of animals 1, Pathology of animals 2, Veterinary microbiology 1, Veterinary microbiology 2, Veterinary pharmacology and toxicology 1, Veterinary pharmacology and toxicology 2	ON 3. To explain the inheritance patterns of living organisms, signs changing and to master the biometric processing skills of primary material.	ON 3. To explain the inheritance patterns of living organisms, signs changing and to master the biometric processing skills of primary material.	Laboratory diagnostics in veterinary
B083 - «Veterinary science»	6B0910	Full-time (bachelor or 5 year) trimester	The veterinary Virology	VV 3216	BS	5.0	Elective subjects	Bachelor	Microbiology and biotechnology	3	1	Biology, chemistry, organic chemistry, biochemistry, physics, physiology, botany, zoology, histology, genetics, veterinary microbiology and immunology	Contamination of livestock products 1, Food safety 1, Pathology of animals 2, Pathology of animals 3, Veterinary hygiene 3, Veterinary-sanitary examination of livestock and poultry products 1, Veterinary-sanitary examination of livestock and poultry products 2	Contamination of livestock products 1, Food safety 1, Pathology of animals 2, Pathology of animals 3, Veterinary hygiene 3, Veterinary-sanitary examination of livestock and poultry products 1, Veterinary-sanitary examination of livestock and poultry products 2	Understand the epizootic process, know the systematics, genetics, morphology and physiology of pathogens of infectious and viral diseases, carry out management and legislative regulation in veterinary medicine, establish a diagnosis, conduct allergic and clinical, epizootic survey, vaccinate animals, develop an action plan for infectious animal diseases	Understand the epizootic process, know the systematics, genetics, morphology and physiology of pathogens of infectious and viral diseases, carry out management and legislative regulation in veterinary medicine, establish a diagnosis, conduct allergic and clinical, epizootic survey, vaccinate animals, develop an action plan for infectious animal diseases	Methods of virological research

B083 - «Veterinary science»	«Veterinary science»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 year trimester	Methods of virological research	MVI 3275	BS	Elective subjects	5 0	Bachelor	Microbiology and biotechnology	3	1	Biology, chemistry, organic chemistry, biochemistry, physiology, botany, zoology, histology, genetics, veterinary microbiology and immunology	Contamination of livestock products 1. Food safety 1. Pathology of animals 2. Pathology of animals 3. Veterinary hygiene 3. Veterinary-sanitary examination of livestock and poultry products 1. Veterinary-sanitary examination of livestock and poultry products 2.	Studies of general description of viruses, chemical composition, their resistance to various physicochemical and biological factors; rules and safety precautions when working with materials containing viruses, methods for growing viruses in chicken embryos and cell growths, immunological methods for combating viruses, the emergence and spread of viral diseases, the fight against them, familiarity with the features of treatment and prevention	Understand the epizootic process, know the systematics, genetics, morphology and physiology of pathogens of infectious and viral diseases, carry out management and legislative regulation in veterinary medicine, establish a diagnosis, conduct allergic and clinical, epizootic survey, vaccinate animals, develop an action plan for infectious animal diseases	The veterinary Virology
B083 - «Veterinary science»	«Veterinary science»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 year trimester	Veterinary radiobiology	VR 3212	BS	Elective subjects	5 0	Bachelor	Veterinary medicine	3	2	Anatomy, physiology and biochemistry of animals	Internal animal diseases. Practical Therapy	ON 10 To formulate the theoretical and practical foundations of etropathogenesis, therapeutic and preventive measures for non-infectious pathologies, ionizing radiation and poisoning diseases, to possess the laboratory diagnostics skills and to interpret obtained results	Knowledge of the rules of veterinary and sanitary control during the production, transportation, storage and sale of products and raw materials of animal origin, management and legislative regulation in veterinary medicine, methods for determining economic damage and economic efficiency of veterinary measures Be able to carry out veterinary and sanitary control at the border and transport, at meat and dairy enterprises; carry out quality control of meat and dairy products, as well as crop products, fish farming and backering, know the rules for sanitary assessment of the quality and safety of products when contaminated with foreign substances	Radiobiological safety
B083 - «Veterinary science»	«Veterinary science»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 year trimester	Radiobiological safety	RB 3268	BS	Elective subjects	5 0	Bachelor	Veterinary medicine	3	2	Anatomy, physiology and biochemistry of animals	Internal animal diseases. Practical Therapy	Knowledge of the rules of veterinary and sanitary control during the production, transportation, storage and sale of products and raw materials of animal origin, management and legislative regulation in veterinary medicine, methods for determining economic damage and economic efficiency of veterinary measures Be able to carry out veterinary and sanitary control at the border and transport, at meat and dairy enterprises; carry out quality control of meat and dairy products, as well as crop products, fish farming and backering, know the rules for sanitary assessment of the quality and safety of products when contaminated with foreign substances	Veterinary radiobiology	
B083 - «Veterinary science»	«Veterinary science»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 year trimester	Veterinary surgery	VH 3259	BS	Elective subjects	5 0	Bachelor	Veterinary medicine	3	3	animal morphology with Latin, veterinary terminology, animal physiology and biochemistry, veterinary microbiology and animal pathology, veterinary pharmacology with toxicology, animal pathology.	Internship, Veterinary, obstetrics and gynecology	Forms the skills of surgical thinking during the treatment of surgically ill animals. The issues of identifying surgical pathologies and carrying out therapeutic and preventive measures aimed at preserving the life of animals and increasing their productivity are considered	Know the theoretical and practical foundations of veterinary radiobiology, work with dosimetric devices, acquire the skills of laboratory, clinical diagnostics, medical examination, therapeutic equipment, carry out therapeutic and preventive measures for surgical, obstetric-gynecological and internal diseases of animals	Small animal surgery
B083 - «Veterinary science»	«Veterinary science»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 year trimester	Small animal surgery	HMZh 3265	BS	Elective subjects	5 0	Bachelor	Veterinary medicine	3	3	animal morphology with Latin, veterinary terminology, animal biochemistry, veterinary microbiology and animal pathology, veterinary pharmacology with toxicology, animal pathology.	Internship, Veterinary, obstetrics and gynecology	ON 10 To formulate the theoretical and practical foundations of etropathogenesis, therapeutic and preventive measures for non-infectious pathologies, ionizing radiation and poisoning diseases, to possess the laboratory diagnostics skills and to interpret obtained results ON 11 To justify the choice of therapeutic measures for various pathologies, taking into account the physiological state and nature of the disease occurrence, to interpret pathological changes in organs and tissues. ON 12 To analyze the animal organs and tissues: anatomical and physiological state, the diagnosis and elimination methods of various pathologies, to integrate the medical thinking into professional activity.	Veterinary surgery	
B083 - «Veterinary science»	«Veterinary science»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 year trimester	Management in veterinary business 1	MV 4304	AS	Elective subjects	3 0	Bachelor	Veterinary sanitation	4	1	Veterinary microbiology, Veterinary virology, Pathomorphology, Food safety, Veterinary sanitary supervision and control at the border and transport, Veterinary epidemiology.	Cross-border and exotic animal diseases, Epizootiological monitoring and organization of veterinary events, Parasitology and invasive animal diseases 1. Parasitology and invasive animal diseases 2. Veterinary-sanitary examination of livestock and poultry products 2. Veterinary-sanitary examination of livestock and poultry products 3	Knowledge of the rules of veterinary and sanitary control during the production, transportation, storage and sale of products and raw materials of animal origin, management and legislative regulation in veterinary medicine, methods for determining economic damage and economic efficiency of veterinary measures	Organization of veterinary business 1	
B083 - «Veterinary science»	«Veterinary science»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 year trimester	Organization of veterinary business 1	QVD 4329	AS	Elective subjects	3 0	Bachelor	Veterinary sanitation	4	1	Veterinary microbiology, Veterinary virology, Pathomorphology, Food safety, Veterinary sanitary supervision and control at the border and transport, Veterinary epidemiology.	Cross-border and exotic animal diseases, Epizootiological monitoring and organization of veterinary events, Parasitology and invasive animal diseases 1. Parasitology and invasive animal diseases 2. Veterinary-sanitary examination of livestock and poultry products 2. Veterinary-sanitary examination of livestock and poultry products 3	Knowledge of the rules of veterinary and sanitary control during the production, transportation, storage and sale of products and raw materials of animal origin, management and legislative regulation in veterinary medicine, methods for determining economic damage and economic efficiency of veterinary measures	Management in veterinary business 1	
B083 - «Veterinary science»	«Veterinary science»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 year trimester	Internal animal diseases	VBZh 4250	BS	Elective subjects	5 0	Bachelor	Veterinary medicine	4	1	Anatomy, genetics, histology, physiology, biochemistry, immunology, veterinary hygiene, veterinary radiology	Internship, Veterinary-sanitary examination of livestock and poultry products 2. Veterinary-sanitary examination of livestock and poultry products 3	ON 9 - Know the theoretical and practical foundations of veterinary radiobiology, work with dosimetric devices, acquire the skills of laboratory, clinical diagnostics, medical examination, therapeutic techniques, carry out therapeutic and preventive measures for surgical, obstetric-gynecological and internal diseases of animals.	Practical Therapy	

B083 - «Veterinary sciences»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 year trimester	Practical Therap.	PT 4270	BS	Elective subjects	5 0	Bachelor	Veterinary medicine	4	1	Anatom., genetics, histology, physiology, biochemistry, microbiology, virology and immunology, veterinary hygiene, veterinary radiology	Internship, Veterinary-sanitary examination of livestock and poultry products 2, Veterinary-sanitary examination of livestock and poultry products 3	Forms the skills of medical thinking and practical ability to use therapeutic techniques in carrying out therapeutic and preventive measures for internal diseases of animals.	Know the theoretical and practical foundations of veterinary radiology, work with dosimetric devices, acquire the skills of laboratory, clinical diagnostics, medical examination, therapeutic equipment, carry out therapeutic and preventive measures for surgical, obstetric-gynecological and internal diseases of animals	Internal animal diseases
B083 - «Veterinary sciences»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 year trimester	Management in veterinary 2	MV 4318	AS	Elective subjects	3 0	Bachelor	Veterinary sanitation	4	2	Veterinary microbiology, Veterinary virology, Pathomorphology, Food safety, Veterinary sanitary supervision and control at the border and transport, Veterinary epidemiology	Cross-border and exotic animal diseases, Epizootiological monitoring and organization of veterinary events, Parasitology and invasive animal diseases 1, Parasitology and invasive animal diseases 2, Veterinary-sanitary examination of livestock and poultry products 2, Veterinary-sanitary examination of livestock and poultry products 3	Knowledge of the rules of veterinary and sanitary control during the production, transportation, storage and sale of products and raw materials of animal origin, management and legislative regulation in veterinary medicine, methods for determining economic damage and economic efficiency, of veterinary measures	Organization of veterinary business 2	
B083 - «Veterinary sciences»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 year trimester	Organization of veterinary business 2	OVD 4330	AS	Elective subjects	3 0	Bachelor	Veterinary sanitation	4	2	Veterinary microbiology, Veterinary virology, Pathomorphology, Food safety, Veterinary sanitary supervision and control at the border and transport, Veterinary epidemiology	Cross-border and exotic animal diseases, Epizootiological monitoring and organization of veterinary events, Parasitology and invasive animal diseases 1, Parasitology and invasive animal diseases 2, Veterinary-sanitary examination of livestock and poultry products 2, Veterinary-sanitary examination of livestock and poultry products 3	Knowledge of the rules of veterinary and sanitary control during the production, transportation, storage and sale of products and raw materials of animal origin, management and legislative regulation in veterinary medicine, methods for determining economic damage and economic efficiency, of veterinary measures	Management in veterinary 2	
B083 - «Veterinary sciences»	6B0910 1 - «Food safety»	Full-time (bachelor year) or 5 year trimester	Contamination of livestock products 1	KPZh 4251	BS	Elective subjects	4 0	Bachelor	Veterinary sanitation	4	2	Pathoanatomy, epizootology, parasitology, microbiology, virology, physiology, anatomy, histology, chemistry	Technology, sanitary and veterinary-sanitary examination of meat and dairy products 1, Technology, sanitary and veterinary-sanitary examination of meat and dairy products 2, Technology, sanitary and veterinary-sanitary examination of meat and dairy products 3, Veterinary-sanitary examination of livestock and poultry products 2, Veterinary-sanitary examination of products of plant growing, fish farming and beekeeping 2	To master the rules of veterinary care for slaughter animals, the technology and hygiene of the production of products of animal origin to acquire the skills of veterinary and sanitary examination to assess the quality and safety of livestock products at each stage of production, as well as veterinary judicial examination Be able to carry out veterinary and sanitary control at the border and transport, at meat and dairy enterprises, carry out quality control of meat and dairy products, as well as crop products, fish farming and beekeeping, know the rules for sanitary assessment of the quality and safety of products when contaminated with foreign substances	Food safety 1	
B083 - «Veterinary sciences»	6B0910 1 - «Food safety»	Full-time (bachelor year) or 5 year trimester	Food safety 1	BPP 4263	BS	Elective subjects	4 0	Bachelor	Veterinary sanitation	4	2	Pathoanatomy, epizootology, parasitology, microbiology, virology, physiology, anatomy, histology, chemistry	Technology, sanitary and veterinary-sanitary examination of meat and dairy products 1, Technology, sanitary and veterinary-sanitary examination of meat and dairy products 2, Technology, sanitary and veterinary-sanitary examination of meat and dairy products 3, Veterinary-sanitary examination of livestock and poultry products 2, Veterinary-sanitary examination of livestock and poultry products 3, Veterinary-sanitary examination of products of plant growing, fish farming and beekeeping 2	To master the rules of veterinary care for slaughter animals, the technology and hygiene of the production of products of animal origin, to acquire the skills of veterinary and sanitary examination to assess the quality and safety of livestock products at each stage of production, as well as veterinary judicial examination Be able to carry out veterinary and sanitary control at the border and transport, at meat and dairy enterprises, carry out quality control of meat and dairy products, as well as crop products, fish farming and beekeeping, know the rules for sanitary assessment of the quality and safety of products when contaminated with foreign substances	Contamination of livestock products 1	
B083 - «Veterinary sciences»	6B0910 1 - «Food safety»	Full-time (bachelor year) or 5 year trimester	Food safety 2	BPP 4242	BS	Elective subjects	3 0	Bachelor	Veterinary sanitation	4	3	Pathoanatomy, epizootology, parasitology, microbiology, virology, physiology, anatomy, histology, chemistry	Epizootological monitoring and organization of veterinary events, Parasitology and invasive animal diseases 2, Technology, sanitary and veterinary-sanitary examination of meat and dairy products 3	To master the rules of veterinary care for slaughter animals, the technology and hygiene of the production of products of animal origin, to acquire the skills of veterinary and sanitary examination to assess the quality and safety of livestock products at each stage of production, as well as veterinary judicial examination Be able to carry out veterinary and sanitary control at the border and transport, at meat and dairy enterprises, carry out quality control of meat and dairy products, as well as crop products, fish farming and beekeeping, know the rules for sanitary assessment of the quality and safety of products when contaminated with foreign substances	Contamination of livestock products 2	
B083 - «Veterinary sciences»	6B0910 1 - «Food safety»	Full-time (bachelor year) or 5 year trimester	Contamination of livestock products 2	KPZh 4266	BS	Elective subjects	3 0	Bachelor	Veterinary sanitation	4	3	Pathoanatomy, epizootology, parasitology, microbiology, virology, physiology, anatomy, histology, chemistry	Epizootological monitoring and organization of veterinary events, Parasitology and invasive animal diseases 2, Technology, sanitary and veterinary-sanitary examination of meat and dairy products 3	To master the rules of veterinary care for slaughter animals, the technology and hygiene of the production of products of animal origin, to acquire the skills of veterinary and sanitary examination to assess the quality and safety of livestock products at each stage of production, as well as veterinary judicial examination Be able to carry out veterinary and sanitary control at the border and transport, at meat and dairy enterprises, carry out quality control of meat and dairy products, as well as crop products, fish farming and beekeeping, know the rules for sanitary assessment of the quality and safety of products when contaminated with foreign substances	Food safety 2	

B083 - «Veterinary science»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 trimester	Veterinary control at the border and transport	VKG T 5209	BS	Elective subjects	5.0	Bachelor	Veterinary sanitation	5	2	veterinary hygiene and sanitation, veterinary and sanitary examination, epizootology, parasitology, organization of veterinary business.	Epizootological monitoring and organization of veterinary events	Studies the issues of veterinary and sanitary measures to prevent the spread of diseases along the routes of road, rail and air transport, the implementation of veterinary and sanitary measures and ensuring security at the border and transport. Forms the skills of control and accounting of controlled goods, maintaining documentation	ON 5. To apply knowledge the veterinary and sanitary standards in maintenance, feeding and exploitation of animals. ON 8. To provide the technology and hygiene rules of production of animal and plant products and veterinary and sanitary assessment of their quality.	Veterinary and sanitary supervision during export-import transportation
B083 - «Veterinary science»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 trimester	Veterinary and sanitary supervision during export-import transportation	VSNP EIP 5273	BS	Elective subjects	5.0	Bachelor	Veterinary sanitation	5	2	veterinary hygiene and sanitary examinations, epizootology, parasitology, organization of veterinary business.	Epizootological monitoring and organization of veterinary events	To provide the technology and hygiene rules of production of animal and plant products and veterinary and sanitary assessment of their quality. To apply knowledge the veterinary and sanitary standards in maintenance, feeding and exploitation of animals	Veterinary control at the border and transport	
B083 - «Veterinary science»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 trimester	Epizootological monitoring and organization of veterinary events	EMO VM 5210	BS	Elective subjects	5.0	Bachelor	Veterinary sanitation	5	2	Animal anatomy, veterinary virology, clinical diagnostics, pathomorphology, epidemiology	Parasitology and invasive animal diseases 2, Veterinary control at the border and transport	Understand the epizootic process, know the systematics, genetics, morphology and physiology of pathogens of infectious and viral diseases, carry out management and legislative regulation in veterinary medicine, establish a diagnosis, conduct allergic and clinical, epizootic surveys, vaccinate animals, develop an action plan for infectious animal diseases	Cross-border and exotic animal diseases	
B083 - «Veterinary science»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 trimester	Cross-border and exotic animal diseases	TEBZh 5274	BS	Elective subjects	5.0	Bachelor	Veterinary medicine	5	2	Animal anatomy, veterinary virology, clinical diagnostics, pathomorphology, epidemiology	Parasitology and invasive animal diseases 2, Veterinary control at the border and transport	ON 11. To justify the choice of therapeutic measures for various pathogens taking into account the physiological state and nature of the disease occurrence; to interpret pathological changes in organs and tissues ON 12. To analyze the animal organs and tissues' anatomical and physiological state, the diagnosis and elimination methods of various pathologies, to integrate the medical thinking into professional activity ON 13. To know the legislative regulations and the nomenclature of veterinary medicine document management, to provide the economic justification of veterinary measures, to be competent in forensic examination matters	Epizootological monitoring and organization of veterinary events	
B083 - «Veterinary science»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 trimester	Food safety 3	BPP 5243	BS	Elective subjects	3.0	Bachelor	Veterinary sanitation	5	2	Pathomorphology, epizootology, parasitology, microbiology, virology, physiology, anatomy, histology, chemistry	Epizootological monitoring and organization of veterinary events, Parasitology and invasive animal diseases 2, Technology, sanitary and veterinary-sanitary examination of meat and dairy products 3	To master the rules of veterinary care for slaughter animals, the technology and hygiene of the production of products of animal origin, to acquire the skills of veterinary and sanitary examination to assess the quality and safety of livestock products at each stage of production, as well as veterinary judicial examination. Be able to carry out veterinary and sanitary control at the border and transport, at meat and dairy enterprises; carry out quality control of meat and dairy products, as well as crop products, fish farming and beekeeping, know the rules for sanitary assessment of the quality and safety of products when contaminated with foreign substances	Contamination of livestock products 3	
B083 - «Veterinary science»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 trimester	Contamination of livestock products 3	KPZh 5267	BS	Elective subjects	3.0	Bachelor	Veterinary sanitation	5	2	Pathomorphology, epizootology, parasitology, microbiology, virology, physiology, anatomy, histology, chemistry	Epizootological monitoring and organization of veterinary events, Parasitology and invasive animal diseases 2, Technology, sanitary and veterinary-sanitary examination of meat and dairy products 3	To master the rules of veterinary care for slaughter animals, the technology and hygiene of the production of products of animal origin, to acquire the skills of veterinary and sanitary examination to assess the quality and safety of livestock products at each stage of production, as well as veterinary judicial examination. Be able to carry out veterinary and sanitary control at the border and transport, at meat and dairy enterprises; carry out quality control of meat and dairy products, as well as crop products, fish farming and beekeeping, know the rules for sanitary assessment of the quality and safety of products when contaminated with foreign substances	Food safety 3	
B083 - «Veterinary science»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 trimester	Forensic Veterinary Expertise	SVE 5327	AS	Elective subjects	5.0	Bachelor	Veterinary sanitation	5	2	pathology, epizootology, parasitology, microbiology, virology, physiology, anatomy, histology, standardization and certification of agricultural products	Contamination of livestock products 3, Food safety 3	The discipline studies the issues of litigation in cases of controversial cases, with deliberate falsification, forensic veterinary autopsy, toxicology, and thanatology; of litigation. It forms knowledge in the preparation of documentation of the conducted examinations	Forensic thanatology	
B083 - «Veterinary science»	6B0910 2 - «Food safety»	Full-time (bachelor year) or 5 trimester	Forensic thanatology	ST 5328	AS	Elective subjects	5.0	Bachelor	Veterinary sanitation	5	2	pathology, epizootology, parasitology, microbiology, virology, physiology, anatomy, histology, standardization and certification of agricultural products	Contamination of livestock products 3, Food safety 3	To provide the technology and hygiene rules of production of animal and plant products and veterinary and sanitary assessment of their quality. To apply knowledge the veterinary and sanitary standards in maintenance, feeding and exploitation of animals.	Forensic Veterinary Expertise	

The catalog of elective disciplines was approved by the Academic Council of the Faculty of VITZH on 27.08.2022, Protocol No. 1a

Head of the Department of Veterinary Sanitation \_\_\_\_\_ Adilbekov Zh.Sh.