



CATALOG OF ELECTIVE DISCIPLINES

For students in the direction of preparation 7M091 Veterinary

Brief description of the elective disciplines of the educational program

EPG	EP	Form of education	The name of discipline	Code of subject	Discipline 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
M138 - «Veterinary science»	7M09102 - «Safety and quality of food production»	Full-time (MS 2 years) quality of trimester	Veterinary ergonomics	VE 5303	AS	Elective subjects	5.0	Master's program by specialization (Scientific & pedagogical direction)	Veterinary sanitation	I	I	breeding with the basics of private animal husbandry, feeding of farm animals, economics, organization and management of agricultural production, obstetrics, animal breeding biotechnics,	Research practice	The study of the influence of various methods of mechanization to create optimal conditions for growing, keeping and operating animals. Violations of technical parameters, rules and operating modes of devices, sizes and their impact on the manifestation of stress, incidence, decrease in animal productivity and product quality	master's student should be able to use scientific concepts on the application of knowledge in the field of ergonomic skills and rules for keeping animals, solving problems on the device, principles of operation and regulation of effective operation of equipment to preserve animal health and obtain quality products	Monitoring of the veterinary and sanitary regime and its optimization at livestock enterprises
M138 - «Veterinary science»	7M09102 - «Safety and quality of food production»	Full-time (MS 2 years) trimester	Monitoring of the veterinary and sanitary regime and its optimization at livestock enterprises	MVSR EOZh P 5310	AS	Elective subjects	5.0	Master's program by specialization (Scientific & pedagogical direction)	Veterinary sanitation	I	I	breeding with the basics of private animal husbandry, feeding of farm animals, economics, organization and management of agricultural production, obstetrics, animal breeding biotechnics,	Research practice	Acquisition of skills in mastering veterinary and sanitary supervision and legislation in the field of veterinary and sanitary rules for livestock enterprises	A master's student should be able to use scientific concepts on the application of knowledge in the field of ergonomic skills and rules for keeping animals, solving problems on the device, principles of operation and regulation of effective operation of equipment to preserve animal health and obtain quality products	Veterinary ergonomics
M138 - «Veterinary science»	7M09102 - «Safety and quality of food production»	Full-time (MS 2 years) trimester	Patenting and intellectual property protection	PZIS 5205	BS	Elective subjects	5.0	Master's program by specialization (Scientific & pedagogical direction)	Veterinary sanitation	I	I	Theory and methods of experimentation, scientific ethics, etc general education, natural science disciplines	Master student's research work, including implementation of master's thesis	Summarizes knowledge in the field of intellectual property and copyright protection, conducting patent and information research and drafting national and international applications for inventions. Forms the skills of interpretation of the objects of invention, creative thinking.	Generalize knowledge in the field of veterinary medicine, formulate concepts of legal and anti-corruption culture, determine the importance of principles and culture of academic integrity for the formation of a competent personality with high thinking potential, as well as extract modern ideas in the information structure in the field of professional activity, distinguish between the methods of writing academic texts, abstracting, compiling and processing research results. Demonstrate knowledge in the field of intellectual property and copyright protection, conduct patent information research and prepare national and international applications for inventions.	Protection of intellectual property in research
M138 - «Veterinary science»	7M09102 - «Safety and quality of food production»	Full-time (MS 2 years) trimester	Protection of intellectual property in research	ZISNI 6509	BS	Elective subjects	5.0	Master's program by specialization (Scientific & pedagogical direction)	Veterinary sanitation	I	I	Theory and methods of experimentation, scientific ethics, etc general education, natural science disciplines	Master student's research work, including implementation of master's thesis	Examines the concept of invention, issues of the legislation of the Republic of Kazakhstan and international cooperation in the field of industrial property protection. Provides skills in working with patent	The master's student will acquire practical skills in the field of intellectual property and copyright protection, learn how to design, submit and accompany national and international applications for inventions, conduct patent information research and	Patenting and intellectual property protection

M138 - «Veterinary sciences»	7M09102 - «Safety and quality of food production»	Full-time (MS 2 years)	Veterinary and sanitary examination of organic products	VSEO AS P 5306	Elective subjects	5.0	Master's program by specialization (Scientific & pedagogical direction)	Veterinary sanitation	1	1	technology of processing of animal products, feeding of farm animals, veterinary sanitary examination of animal products, epizootology, parasitology	Master student's research work, including implementation of master's thesis, Modern problems of veterinary	Organic production in agriculture Organic ecosystems. Features of the transition to organic agriculture Organic animal husbandry advantages, principles, problems Organic poultry farming, beekeeping, fish farming. Organic food processing. Veterinary aspects in the production of organic products. Inspection procedure and application for certification. Certification procedure. Turnover of organic products	The master's student must have knowledge on the implementation of the organic production system in farms, enterprises and organizations engaged in the processing and sale of products. Be able to carry out certification of organic production in farms, enterprises and organizations. To control the correctness of the implementation of veterinary measures in organic production	Veterinary and sanitary examination of halal products
M138 - «Veterinary sciences»	7M09102 - «Safety and quality of food production»	Full-time (MS 2 years)	Veterinary and sanitary examination of halal products	VSEH AS P 5313	Elective subjects	5.0	Master's program by specialization (Scientific & pedagogical direction)	Veterinary sanitation	1	1	technology of processing of animal products, feeding of farm animals, veterinary sanitary examination of animal products, epizootology, parasitology	Master student's research work, including implementation of master's thesis, Modern problems of biological waste disposal	Studying the issues of technology features, production hygiene and standardization, methods of quality control and safety of halal products	The master's student must have knowledge on the implementation of the organic production system in farms, enterprises and organizations engaged in the processing and sale of products. Be able to carry out certification of organic production in farms, enterprises and organizations. To control the correctness of the implementation of veterinary measures in organic production	Veterinary and sanitary examination of organic products
M138 - «Veterinary sciences»	7M09102 - «Safety and quality of food production»	Full-time (MS 2 years)	Technology of production and control of veterinary drugs	TPKV AS P 5301	Elective subjects	6.0	Master's program by specialization (Scientific & pedagogical direction)	Veterinary sanitation	1	2	pedagogical practice, theory and experimental methods, veterinary ergonomics, patenting and intellectual property protection	Master student's research work, including implementation of master's thesis, Modern problems of veterinary	The state of production, classification, registration, testing, control of veterinary drugs in Kazakhstan and abroad. Production technology and biological control of vaccines, diagnostic kits. Methods, ways, strategies and principles of vaccination of animals. Recommendations for the prevention of antibiotic resistance	A master's student should be able to systematize knowledge of the basics of production technology, the main legislative acts concerning the control of veterinary drugs, conduct registration and testing of veterinary drugs, use the skills of vaccine production technology and diagnostics	Standardization and Certification of Veterinary Preparations
M138 - «Veterinary sciences»	7M09102 - «Safety and quality of food production»	Full-time (MS 2 years)	Standardization and Certification of Veterinary Preparations	SSVP AS 5309	Elective subjects	6.0	Master's program by specialization (Scientific & pedagogical direction)	Veterinary sanitation	1	2	pedagogical practice, theory and experimental methods, veterinary ergonomics, patenting and intellectual property protection	Master student's research work, including implementation of master's thesis, Modern problems of veterinary	It studies the technology, requirements for the production and use of veterinary drugs (vaccines, diagnostics, etc.), and also considers the procedure for registration, conducting probation tests of veterinary drugs. Provides an insight into the modern concept and principles of quality assurance in the production of biological products	A master's student should be able to systematize knowledge of the basics of production technology, the main legislative acts concerning the control of veterinary drugs, conduct registration and testing of veterinary drugs, use the skills of vaccine production technology and diagnostics	Technology of production and control of veterinary drugs
M138 - «Veterinary sciences»	7M09102 - «Safety and quality of food production»	Full-time (MS 2 years)	Modern problems of veterinary	SPV AS 5207	Elective subjects	5.0	Master's program by specialization (Scientific & pedagogical direction)	Veterinary sanitation	1	3	It is based on knowledge of chemistry, genetics, physiology, computer technology, clinical parasitology, information technology and statistics, histology, microbiology, veterinary and sanitary examination, pathological anatomy and physiology	Master student's research work, including implementation of master's thesis, Veterinary and EurAsEC system	The state of veterinary medicine in the Republic of Kazakhstan and abroad, aspects of state veterinary control over product safety, features of food production and livestock production in modern conditions of export relations, modern methods of diagnosis, prevention and treatment of infectious and non-infectious diseases of animals, birds, fish and wild animals	A master's student must organize the necessary training of operational tools for managing food quality and safety systems, be able to explain and monitor environmental conditions in order to avoid or reduce changes in food	Veterinary and sanitary safety of livestock products at the border and transport

M138 - «Veterinary science»	7M09102 - «Safety and quality of food production»	Full-time (MS 2 years)	Veterinary and sanitary safety of livestock products at the border and transport	VSBP - «ZHGTP 5217	BS	Elective subjects	5.0	Master's program by specialization (Scientific & pedagogical direction)	Veterinary sanitation	1	3	It is based on knowledge of chemistry, genetics, physiology, computer technology, clinical parasitology, toxicology, information technology and statistics, histology, microbiology, veterinary and pathological anatomy and physiology	Master student's research work, including implementation of master's thesis, Veterinary and sanitary control in EurASEC system	Studies issues and ways to solve problems of product quality and safety in modern market conditions, masters the latest developments in the field of veterinary sanitation	The master's student must organize the necessary training of operational tools for managing systems for ensuring the quality and safety of food products, be able to explain and monitor environmental conditions in order to avoid or reduce changes in food products	Modern problems of veterinary
M138 - «Veterinary science»	7M09102 - «Safety and quality of food production»	Full-time (MS 2 years)	Target in veterinary and sanitary inspection Trad Pro	TVSE TP 6206	BS	Elective subjects	5.0	Master's program by specialization (Scientific & pedagogical direction)	Veterinary sanitation	2	1	feeding of farm animals, veterinary and sanitary examination of livestock products, feeding of farm animals, veterinary and sanitary examination of livestock products, internal non-infectious diseases of animals, epizootology and infectious diseases of animals, veterinary sanitary examination	Master student's research work, including implementation of master's thesis	Aspects of food safety, compliance of the production process and the finished product with the requirements of the current regulatory documents. Issues of microbial	The master's student must organize the necessary training of operational tools for managing food quality and safety systems, be able to explain and monitor environmental conditions in order to avoid or reduce	Target in veterinary and sanitary inspection Trad Pro
M138 - «Veterinary science»	7M09102 - «Safety and quality of food production»	Full-time (MS 2 years)	Safety of traditional meat products	BTMP 7305	BS	Elective subjects	5.0	Master's program by specialization (Scientific & pedagogical direction)	Veterinary sanitation	2	1	feeding of farm animals, veterinary and sanitary examination of livestock products, internal non-infectious diseases of animals, epizootology and infectious diseases of animals, veterinary sanitary examination	Master student's research work, including implementation of master's thesis	Studies the assortment and nutritional value of national meat products, examines the issues of production technology, gives the skills of veterinary and sanitary assessment of the quality and safety of national meat products	The master's student must have theoretical knowledge and practical skills in the issues of veterinary control and supervision in the production, storage, transportation and sale of food products. Be able to evaluate modern methods of diagnosis, prevention and treatment of infectious and non-infectious diseases of animals, birds, fish and wild animals	Target in veterinary and sanitary inspection Trad Pro
M138 - «Veterinary science»	7M09102 - «Safety and quality of food production»	Full-time (MS 2 years)	Veterinary and sanitary control in EurASEC system	VSKS E 6304	AS	Elective subjects	5.0	Master's program by specialization (Scientific & pedagogical direction)	Veterinary sanitation	2	1	It is based on knowledge of regulations in the field of veterinary medicine at the national and international level, the basics of microbiology, epizootology, helminthology, insect and rodent biology, toxicology, meat and milk technology, VSE, human hygiene	Master student's research work, including implementation of master's thesis	The procedure for the interaction of the authorized organs of the Member States with the introduction of temporary sanitary, veterinary sanitary and quarantine phytosanitary measures. Coordinated approaches for identification, registration and traceability of animals and animal products in accordance with the acts of the Commission	A master's student should know and be able to organize veterinary and sanitary measures in accordance with the requirements of the Regulation on the Unified Procedure for Veterinary Control in the Customs Territory of the EAEU and apply measures to prevent objects that do not meet the requirements of the unified regulatory legal framework of the EAEU	Modern problems of biological waste disposal
M138 - «Veterinary science»	7M09102 - «Safety and quality of food production»	Full-time (MS 2 years)	Modern problems of biological waste disposal	SPUB O 6311	AS	Elective subjects	5.0	Master's program by specialization (Scientific & pedagogical direction)	Veterinary sanitation	2	1	It is based on knowledge of regulations in the field of veterinary medicine at the national and international level, the basics of microbiology, epizootology, helminthology, insect and rodent biology	Master student's research work, including implementation of master's thesis	The development of methods and methods for the disposal of biological waste, their sanitary assessment and the possibility of use.	A master's student must know and be able to organize veterinary and sanitary measures in accordance with the requirements of the Regulation on the Unified Procedure for Veterinary Control in the EAEU Customs Territory and apply measures to prevent objects that do not meet the requirements of the EAEU unified regulatory framework	Veterinary and sanitary control in EurASEC system

M138 - «Veterinary sciences»	7M09102 - «Safety and quality of food products»	Full-time (MS 2 years) of trimester	Codex Alimentarius in the examination of food products	CAEP AS P 6305	Elective subjects	5 0	Master's program by specialization (Scientific & pedagogical direction)	Veterinary sanitation	2	1	Veterinary and sanitary expertise, food quality and safety, standardization and certification of food products	Master student's research work, including implementation of master's thesis, Research practice	A set of international standards adopted by the FAO/WHO International Commission for the Implementation of the Codex Alimentarius, Provisions on the Quality and Safety of Food Products, Food Additives, Pesticide Residues, Veterinary Medicines, Pollutants Sampling rules, analysis methods, control and certification during import and export	A master's student should be able to analyze the main standards, argue the decisions made on the quality and safety of food products, possess the skills to identify priority pollutants in accordance with the international requirements of the Codex Alimentarius	European directives for the examination of product quality
M138 - «Veterinary sciences»	7M09102 - «Safety and quality of food products»	Full-time (MS 2 years) of trimester	European directives for the examination of product quality	EDEK AS P 6312	Elective subjects	5 0	Master's program by specialization (Scientific & pedagogical direction)	Veterinary sanitation	2	1	Veterinary and sanitary expertise, food quality and safety, standardization and certification of food products	Master student's research work, including implementation of master's thesis, Research practice	Acquisition of skills in the use of European directives in the examination of the quality of food products in order to release products to the market of the European Union	A master's student should be able to analyze the main standards, argue the decisions made on the quality and safety of food products, possess the skills to identify priority pollutants in accordance with the international requirements of the Codex Alimentarius	Codex Alimentarius in the examination of food products

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

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