



Confirm
 Dean of Forestry,
 Wildlife and Environment Faculty
 D.N.Sarsekova

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For students in the direction of preparation 6B052 "Environment"
 Brief description of the elective disciplines of the educational program

	«Natural resource use»	BD	Ecological aspects of natural science	6	3.4	<p>A systematic approach to the study of biological, chemical, physical ecology. Objects of the material world and fundamental interactions. Science and its methodology. The origin of scientific knowledge: a materialistic and idealistic worldview. He studies the basic principles of the evolution of life. Human evolution: skilled person, upright person, intelligent person, modern person. Biological patterns and their functioning and sustainable development. Types of terrestrial and aquatic ecosystems. Chemical ecology: the dual role of the chemical industry in the nature – production system. Chemical ecology and environmental problems. Chemical ecology of the atmosphere, hydrosphere, lithosphere. Biogeochemical cycles of the most important elements. Chemistry of pollutants in the environment and methods for their separation, purification and control.</p>	<p>- Know: to assess the possible changes in nature or their consequences from the standpoint of the need to ensure and maintain a healthy ecological environment within the boundaries of a particular geographical system. To analyze environmental objects and methods of protecting the environment from pollution.</p> <p>-Able to argue the introduction of new technological processes in accordance with environmental safety requirements. Recognize the social significance of their future profession, have a high motivation to carry out professional activities.</p> <p>-Master: analyze natural science methods in human areas of activity, problems using theoretical and practical knowledge;</p> <p>- Demonstrate knowledge and understanding in the field of study, including elements of the most advanced knowledge in the field</p>	School 1 Biology Course	Landscape ecology and ecosystems
		BD	Teaching about environment	5	5	<p>Environment as a human habitat and industrial activity. Concept of geographical space. Main features of the Earth's surface. Biosphere and geographical envelope. Cycle of substances and energy in nature. Rhythmic phenomena in nature. Zonality on Earth as a</p>	<p>- The formation of a holistic natural-science outlook on the world around us, the assimilation of the idea of the unity of the natural-science process of cognition, the</p>	School 1 Biology	Ecosystem and Lands

						planetary regularity. Landscape zones of the Earth and Kazakhstan. The zoning of the oceans. Forms of interaction between society and the natural environment Natural resources and the problem of their protection Global environmental problems of mankind Forecasting the state of the environment Sustainable development of mankind at the present stage The doctrine of the noosphere Actual problems of global ecology.	development of their skill in a broad philosophical formulation of specific natural-science problems. - Know and understand the basic ideas that make up the basis of modern science, common problems that are borderline and discussed both by experts in the field of ecology and in the field of science, the history of the development of natural science concepts, the methodological basis of science and the main problems of specific branches of science. - To be able to navigate in the modern array of natural science knowledge and independently identify the main worldview, methodological and social problems with which he may come into contact in the process of practical activity.	Cours e	cape Ecolo gy
		BD	Environme ntal chemistry	5	4	The chemical basis for the conversion of pollutants in the environment. Introduction to environmental chemistry. The relationship of environmental chemistry with other scientific disciplines. The chemical basis of environmental interactions. Chemical environmental factor. Ecological properties of chemical elements and their compounds. General characteristics of pollutants. The concept of maximum permissible concentration (MPC). Characterization of s-elements, p-elements, d-elements and f-elements. Heavy metals are toxicants in the environment. Release into the environment, forms of existence, transformation in aquatic ecosystems. Toxic effect on living organisms. Major organic pollutants. General characteristics. The relationship of the toxic properties of organic substances and their composition and structure. Hydrocarbons and halogen derivatives. Amines. Nitro compounds. Persistent organic pollutants. Sources of organic pollutants in the environment. Toxic effect. Ecological chemistry and atmospheric problems. Chemistry of the upper atmosphere and the problems of their pollution. Chemistry of the lower atmosphere and its pollution. Ecological chemistry and hydrosphere problems. The chemical composition of natural waters. Problems of water treatment and water treatment. Chemical pollution of natural waters. The main classes of pollutants. Ecological chemistry and problems of the lithosphere. Chemistry of soil composition. The main soil pollutants. Pollution analysis methods and environmental monitoring. Modern analytical methods for determining elements in environmental objects. Environmental monitoring. Priority controlled environmental parameters. Ecological monitoring of the state of the environment. The concept and structure of the monitoring system, the principles of its	- Have an idea of the volume of emissions of pollutants of anthropogenic origin; predicting possible changes in the biosphere under the influence of human activities. - Know and understand the content of chemical elements in nature; basic characteristics of the atmosphere, hydrosphere and lithosphere; the spread of chemical pollutants in the biosphere; the effect of chemical pollutants on all living things. - Be able to distinguish between natural and man-made sources of chemical pollution; evaluate the effect of chemical pollutants on the biosphere and its components; to take and prepare samples for analysis to perform quantitative chemical analysis in natural objects. - To acquire practical skills in the selection and preparation of samples for analysis; performing quantitative chemical analysis in natural objects.	Gener al ecolog y	Protec tion of atmos pheric air, Water resour ces protec tion, Runof f, Erosio n and Restor ation

						functioning. The main tasks of environmental and analytical monitoring.			
		BD	Study about environmental resource using	5	7	Fundamentals of Resource Management. Basic concepts, object and subject. Resources and their classification. Natural resource potential and its assessment. Environmental pollution and the threat of the destruction of ecological ties in nature. Inventories of natural resources. Theoretical foundations of environmental management. Soil and land resources. Water resources. Biological resources. Energy and mineral resources. Forest resources. Labor resources as a structural element of resource conservation. Rational use of natural resources. Modern effective technologies for the use of natural resources. Legal basis of nature management and resource conservation.	As a result of studying the discipline, the student must: Know: - The main types of natural resources and their classification; - The current state and distribution of natural raw materials and mineral resources on the globe, the territory of the Republic of Kazakhstan and other countries; - the resource supply of the countries of the world, the place of Kazakhstan in the distribution of natural resources on Earth; - The main problems of using natural resources and ways to solve them. Be able to: - analyze the state of natural resource potential in the world and Kazakhstan; - on the basis of the analysis of literary sources and a set of geographical maps to give a comprehensive assessment of the mineral resource base of the region, region, country and the world; - give an assessment of the environmental situation, analyze environmental problems; - evaluate the most important types of natural resources. Own: - a holistic view of the types of natural resources, methods for their assessment, location on the territory of the Republic of Kazakhstan.	Bioindication	Environmental mapping and GIS
		BD	Protection of atmospheric air	5	8	The composition and structure of the atmosphere. Sources of disturbance and air pollution. Types of pollutants. Legislative and regulatory framework of the Republic of Kazakhstan in the field of atmospheric air protection. Classification of sources of emissions of pollutants into the atmosphere, the concepts of WPI, SPZ, KOP. Methods of dust and gas collection. The impact of agriculture on the state of atmospheric air. The main sources of pollution (livestock and poultry farms, industrial complexes for the production of meat, energy and heat-producing enterprises, pesticides used in agriculture, warehouses where seeds are treated	- To have an idea of the types of exposure and sources of exposure to atmospheric air, how to clean dust and gas mixture, how to prevent the negative impact of agricultural emissions on the state of atmospheric air. - Know and understand the main types of pollutant emissions into the atmosphere. - be able to analyze and assess the degree of danger of the impact of agricultural enterprises on atmospheric air by indicators	Environmental chemistry	Environmental Impact Assessment

						with pesticides, and fields where pesticides and mineral fertilizers are applied, as well as ginneries) in the field of agriculture .. Carcinogenic and non-carcinogenic priority air pollutants in rural areas. Methods of air quality control. The impact of priority pollutants on living conditions of the rural population.	of the harmfulness of pollutants; - to acquire practical skills in determining the composition of emissions of pollutants from agricultural enterprises and measures to reduce them.		
		BD	Water resources protection	5	8	The composition and structure of the hydrosphere. The value of the oceans. Fresh water distribution. Formation of the chemical composition of natural waters. The state of water use by sectors of the economy in the world and Kazakhstan. Problems of anthropogenic pollution of the hydrosphere. Use and protection of water resources of the Republic of Kazakhstan. Prospects for sustainable water supply. Water quality and water uses. Classification of water treatment methods. The legal basis for the use of water resources of the Republic of Kazakhstan. Tasks and principles of water legislation of the Republic of Kazakhstan.	- Know: the significance and functions of the hydrosphere, the distribution of fresh water on Earth, the chemical composition and structure of natural waters, the problems and sources of anthropogenic pollution of water resources, international water quality standards, the principles of environmental monitoring of surface waters in the Republic of Kazakhstan, methods for treating natural and waste waters and types treatment facilities, the legislative framework for the protection and rational use of water resources, quality standards of natural waters, effective methods of treating industrial and waste water to comply with the updated environmental regulations - To be able to: draw conclusions about the state and methods of protecting water resources, operate on the acquired knowledge and apply them in the process of professional activity, identify substances that pollute natural waters, - Own: methods for determining the composition and properties of natural and wastewater, the rules for normalizing water quality and water consumption	Environmental chemistry	Environment Impact Assessment
		BD	Runoff, Erosion and Restoration	5	8	Classification of erosion processes. Physical foundations of soil erosion. Patterns of motion of liquids and gases. The formation of surface water runoff in the catchment. Patterns of formation of runoff of surface water on the slopes. Erosive effect of water flows. Factors of water erosion of soils. Methods of studying soil erosion. Methods of combating water erosion of soils. General and summary indicators of water quality. Assessment of the quality of natural, drinking and industrial waters. Hydrobiological indicators of water in water bodies. Water quality control in drinking water and industrial water supply systems. Environmental and sanitary-hygienic requirements and drinking water standards. Types of pollution of natural and waste waters. Methods for the treatment and removal of contaminants. Monitoring of pre-treatment, after-treatment and disinfection of wastewater, sludge treatment	- Know: The theoretical foundations of erosion processes, methods for studying erosion processes, factors in the development of water soil erosion. The main problems and prospects of using effective technologies in the field of natural and waste water treatment. Control of industrial wastewater treatment processes. Hygienic requirements for water quality. Quality standards for drinking water, types of pollutants and methods for their removal; processes of mechanical, biological, physico-chemical wastewater treatment. - Be able to: Assess the erosion	Environmental chemistry	Environment Impact Assessment

						<p>processes. Methods for the extraction of pollutants from wastewater and process control. Mechanical, biological, physico-chemical wastewater treatment facilities. Facilities for the treatment of sewage sludge.</p>	<p>hazard of territories. Develop measures to combat water and wind erosion and give recommendations on their use. Classify natural and wastewater. Draw up a water analysis chart, a conclusion on the operation of water treatment facilities. Determine the hydrobiological indicators of water in water bodies.</p> <p>- Possess: Skills for diagnosing soil erosion, assessing the erosion hazard of soil cover, and using methods to combat soil water erosion.</p>		
		BD	Urban ecology	5	7	<p>The problems of the interaction of cities and nature, the ecology of the air, water, soil environment, ecology of flora and fauna in the conditions of urban ecosystems. Problems of new environmental trends related to the study of the urban environment: arkology, videoecology, urban planning ecology. Issues of regulation of urban environment pollution and measures to protect atmospheric air, surface and underground waters, soil cover. Environmental problems of cities and ways to solve them for sustainable development. Urban areas. Development of decisions within the framework of urban development and the organization of the territory, aimed at ensuring acceptable hygienic living conditions for the population in cities.</p>	<p>- Know: the theoretical issues of urban ecology, the main anthropogenic factors affecting the ecology of the urban environment; questions of the ecology of the home, the determining factors of the internal environment of the premises, the environmental characteristics of building materials; the main provisions of the concept of sustainable development of the city, issues and environmental problems of urban development in the future; the negative impact of the city on the natural environment, manifested in all geospheres; problems of interaction between cities and nature, ecology of air, water, soil environment, ecology of flora and fauna in urban ecosystems.</p> <p>- Be able to: expound and critically analyze basic information in the field of urban ecology and Natural resource use. Identify the components and conditions of the functional zoning of the city, plan the structure of urban areas; to identify the degree of anthropogenic load on the soil in an urban environment; identify measures to improve and protect soils in urban environments; identify sources of impact on water bodies in urban environments; assess water quality based on environmental safety of water use; have the skills of organizational work to form a team to solve the tasks.</p> <p>- Possess: the skills to study the main components of the urban environment, their</p>	General ecology	Industrial Ecology, Radio ecology

							relationship, anthropogenic sources of impact on the urban environment, the paths to transition to sustainable urban development.		
		BD	Nature Conservation Biology	5	7	Bioresources of Kazakhstan and their features. The formation of botanical resource science as a science, history and research methods. UN Convention on Biological Diversity, Objectives. Problems of conservation and rational use of biological resources of Kazakhstan. Synanthropic plants, anthropophytes. Comopolites, endemics and relics. Classification of endemic and relict species. The concept of vicarism. Endemic plants of Kazakhstan. Centers of origin of cultivated plants (according to Vavilov). Differences and features of cultivated plants from wild relatives. Classifications of plant resources (Classifications of Pavlov, Ilyin, Attacks, etc. by energy value, by useful properties, by economic value, by industry principle, etc.). Resources of medicinal, poisonous and industrial plants in Kazakhstan and their use. Food, feed plants of the republic, species, values. Honey plants, essential oil plants of local flora. Zoning of plant resources in Kazakhstan and prospects for their research. Wildlife resources in Kazakhstan and their importance in the economy. Resources of water animals of Kazakhstan (invertebrates, fish). Amphibian and reptile resources in Kazakhstan, methods for their calculation. Resource species of birds and problems of their conservation. Carrying out and methods of counting birds. Resource species of animals of Kazakhstan. Carrying out and methods of counting animals. Red Book of Kazakhstan, categories, value	As a result, the student must: know: - plant bioresources of Kazakhstan; - Animal bioresources of Kazakhstan; - measures for the Conservation and rational using of bioresources of Kazakhstan; - rare and endangered species of plants and animals of Kazakhstan. be able to: - determine the lower and higher vascular plants, invertebrate and vertebrate animals of the area; - apply modern experimental methods of working with biological objects in the field and laboratory conditions. own: - independently determine the types of bioresources of local flora and fauna: - to count amphibians, reptiles, birds and mammalian species of the territory; - analysis of data on the current state and in the long term the biological resources of the area	General ecology	Agriculture and the environment
		BD	Conservation and rational use of biological resources	5	6	Bioresources of Kazakhstan and its features. The formation of botanical resource science as a science, history and research methods. UN Convention on Biological Diversity, Objectives. Problems of conservation and rational use of biological resources of Kazakhstan. Synanthropic plants, anthropophytes. Comopolites, endemics and relics. Classification of endemic and relict species. The concept of vicarism. Endemic plants of Kazakhstan. Centers of origin of cultivated plants (according to Vavilov). Differences and features of cultivated plants from wild relatives. Classifications of plant resources (Classifications of Pavlov, Ilyin, Attacks, etc. by	As a result, the student must: know: - plant bioresources of Kazakhstan; - Animal bioresources of Kazakhstan; - measures for the conservation and rational use of biological resources of Kazakhstan; - rare and endangered species of plants and animals of Kazakhstan.	General Ecology, Ecosystem and Landscape Ecology	Sustainable development and management of

						energy value, by useful properties, by economic value, by industry principle, etc.). Resources of medicinal, poisonous and industrial plants in Kazakhstan and their use. Food, feed plants of the republic, species, values. Honey plants, essential oil plants of local flora. Zoning of plant resources in Kazakhstan and prospects for their research. Wildlife resources in Kazakhstan and their importance in the economy. Resources of water animals of Kazakhstan (invertebrates, fish). Amphibian and reptile resources in Kazakhstan, methods for their calculation. Resource species of birds and problems of their conservation. Carrying out and methods of counting birds. Resource species of animals of Kazakhstan. Carrying out and methods of counting animals. Red Book of Kazakhstan, categories, value	<p>be able to:</p> <ul style="list-style-type: none"> - determine the lower and higher vascular plants, invertebrate and vertebrate animals of the area; - apply modern experimental methods of working with biological objects in the field and laboratory conditions. <p>own:</p> <ul style="list-style-type: none"> - independently determine the types of bioresources of local flora and fauna: - to count amphibians, reptiles, birds and mammalian species of the territory; - analysis of data on the current state and in the long term the biological resources of the area 	gy	agroecosystems
		BD	Environmental Analysis	5	10	The nature and specificity of the methods of analysis, assessment and prediction of environmental pollution. Types of environmental monitoring (geoecological, biological, geosystem, engineering-geological, etc.). Features of the organization of monitoring of different hierarchical levels. Methodology for organizing the collection of environmental information for a comprehensive assessment of environmental pollution. Determination of the degree of anthropogenic and technogenic impact on the environment. Determining the quality of the natural environment at the local, regional and global levels. Interpretation of information data using modern information systems for predicting environmental pollution with the goal of rational nature management and environmental safety.	<ul style="list-style-type: none"> - To study the basic methods for observing, evaluating and forecasting the systems of environmental conditions in order to prevent the impact of environmental factors of the agricultural sector on the state of the environment for environmental management; - Own methods of analyzing environmental processes, setting specific tasks and priorities for protecting the environment and society, knowledge on the laws of development of the biosphere and the conditions of anthropogenic and technological impact on nature; - To be able to analyze the processes occurring in the components of the biosphere and to use methods for the detection and quantification of the main pollutants in the environment; to develop environmental measures. - To master modern information methods of environmental monitoring and control of pollution of natural and environmental using GIS technologies; - To be able to practically apply knowledge on agroecological monitoring to assess the quality of the natural environment in order to predict changes in environmental resistance to anthropogenic and technogenic effects. 	Climat e Change and the Green Economy	Environmental documentation for companies
		PD	English for	6	6	Categorical-conceptual apparatus of modern ecology in a	As a result of studying the discipline,	Foreign	English

			special purposes			professionally-oriented foreign language. Fundamentals of reading, translating, writing, listening and speaking a foreign language. Ways to solve environmental management and sustainable development of the world.	<p>students should:</p> <p>know:</p> <ul style="list-style-type: none"> - professional terminology in the areas of development of modern ecology; - the basics of vocabulary and grammar of a professionally-oriented foreign language in the specialty of ecology, the main grammatical phenomena characteristic of oral and written professional speech; - methods for collecting, storing and processing environmental information; educational and scientific literature, online resources on environmental issues in a professionally-oriented foreign language; <p>be able to:</p> <ul style="list-style-type: none"> -free to read and translate original literature on the chosen specialty with subsequent analysis, interpretation and assessment of the information extracted, for example: to generalize and analyze foreign literature and Internet sites about the state of the environment, the dynamics of environmental processes associated with anthropogenic impact and natural disasters; - to transmit in writing in a foreign language and correctly format information in accordance with the goals and objectives of the training (abstract, abstract, resume), to translate texts in the specialty in writing; - participate in professional discussions, round-table discussions, perceive and understand public speeches in direct and indirect communication (lectures, reports, television and Internet programs). - conduct educational and upbringing work in a foreign language environment in the field of ecology; have skills: - oral communication in the specialty in monologue and dialogue form, preparation of a scientific report, report, presentation, for example, on environmental issues and sustainable development in a foreign language; - conducting business 	n language	h Academic Language
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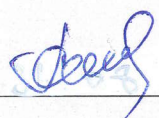
							correspondence, correspondence in a professionally-oriented foreign language; - recording the results of field and experimental environmental studies for the subsequent writing of essays, essays and scientific articles in a foreign language.		
		PD	Pastures: ecology, conservation and restoration	5	7	Earth is the most important object of the natural environment. Land resources of Kazakhstan. The concept and content of the protection and rational use of land resources. Agricultural land. Pastures. Characteristic, types. Protection and rational use of soil resources. Characterization of the soil cover of Kazakhstan. Land management, state land cadastre and land monitoring. State regulation of land relations. State control over the use and protection of pasture lands.	As a result of studying the discipline, the student must: know: - structure of land resources; - classification of land by purpose and use; - characteristics of the soil cover of Kazakhstan; - land management structure; - characteristics, ecology of pasture lands. be able to: - assess the condition of pasture land on the basis of environmental monitoring; - give an economic assessment of land resources; - establish a fee for land use; - choose an effective method of use and restoration of pasture lands; - use the knowledge gained in practice own: - skills in analyzing the state of pastures, choosing an effective method for restoring degraded pastures.	Soil science	Agriculture and the environment
		PD	Agriculture and the environment	5	8	Ecological problems of agricultural production. Agriculture. Environmental regulation of anthropogenic pressures to maintain the ecological balance of natural ecosystems. Economic capacity of natural ecosystems.	must know: - Features of the functioning of agroecosystems in the conditions of modern technogenesis; - The main methods of production of environmentally friendly agricultural products; - The basic principles of the organization of agroecosystems and the optimization of agrolandscapes; should be able to: - to predict the activities of the agricultural producer, taking into account direct and numerous indirect effects on the biosphere as a whole. must own: - skills of using various agroecosystems	Biological ecology, Range lands: Ecology, Conservation and Restoration	Integrated Plant Protection

							depending on environmental conditions. must demonstrate ability and readiness: - apply the acquired knowledge for the analysis and integrated assessment of specific agroecosystems		
		PD	English Academic Language	4	5	Globalization in Education. Grant proposal and policy. Teamwork as a tool for professional communication. Scientific article as a tool of technical communication. Visuals in written academic text. Presentation skills development for participating in a conference and other academic events.	As a result of studying the discipline, students should: -Able to use English at a level that provides free communication, both in the general cultural sphere, and in professional activities with foreign partners, colleagues Have skills (gain experience) in business communication: public speaking, negotiations, meetings, business correspondence, electronic communications, etc .; establishing and maintaining social relationships in the multicultural environment of modern society; the effective implementation of managerial functions in a multicultural environment; solutions to managerial tasks related to operations in global markets in the context of globalization.	Foreign language, English for special purposes	Writing a thesis
		PD	Integrated plant protection	5	8	. The formation of theoretical knowledge on the ecology and harmfulness of insects and pathogens; identification of factors affecting the number of pests and the development of diseases; the formation of practical skills for identifying and recording pests and diseases of agricultural crops; identification of ways to control the number of pests and prevent crop diseases; the study of the basic methods of plant protection, taking into account the environmental situation; the study of the basic laws of the dynamics of populations of pests.	- Knowledge and understanding: to demonstrate basic ideas about the bioecological characteristics of the main plant pests, their systematic position; features of the life cycle and reproduction of phytophages; morphological and biological features of phytopathogens; the main types of manifestations of diseases, the most dangerous types of diseases of agricultural crops; preventive and extermination measures to combat pests; - To be able to: determine the species composition of pests and diseases of agricultural crops; identify signs of damage and damage to plants, diagnose and record pests and diseases of agricultural crops, decide on the need for protective measures; - Possess: knowledge to analyze the state and possible development of the situation in agrophytocenoses on harmful organisms of plants, draw a conclusion about the need for protective measures,	Methods of processing and recycling agricultural waste, Agriculture and the Environment	Writing a thesis

							draw up a comprehensive system of measures for plant protection; - To acquire practical skills: compliance with safety measures when using plant protection products; use in practice of methods for identifying pests and pathogens of plant diseases, their diagnosis, proper selection and application of a set of plant protection measures, work with scientific, technical, regulatory and other documentation in the field of plant protection.		
		PD	Environmental mapping and GIS	5	10	The role of environmental mapping in science and practice. Information sources of environmental mapping. Topographic map, its definition and basic properties. Projection of topographic maps. Thematic groups of environmental maps. Environmental risk maps. Integrated environmental mapping. Satin environmental mapping. General concepts of geographic information systems. Geoinformational and landscape-ecological mapping. Applied GIS.	Students should - know the terminological apparatus and the basic concepts of discipline; theoretical and methodological foundations of mapping; the main properties and significance of ecological geographic maps, including topographic maps. To know and understand: features and specifics of the main cartographic projections and distortions characteristic of small-scale ecological-geographical maps; features of the functioning of geographic information systems. - Be able to: perform basic cartometric and graphic work on cards; Build and analyze plans, profiles, cartographic grids and maps using GIS technologies. - Own: own methods for processing, analyzing and synthesizing field and laboratory environmental information and use theoretical knowledge in practice.	Study about environmental resource using	Writing a thesis
		PD	Environmental documentation for companies	5	11	Fundamentals of legal knowledge in environmental activities. Preparation of documentation for Environment Impact Assessment of various types of project analysis. Carrying out environmental engineering studies to assess the environmental impact of various types of economic activity. Methods for assessing the impact of economic activities on the environment and public health, assessing economic damage and risks to the environment, economic efficiency of environmental measures. Payment for the use of natural resources. The main environmental laws of the Republic of Kazakhstan and documentation.	- Possession of knowledge of the basics of Natural resource use, economics of Natural resource use, sustainable development, Environment Impact Assessment, legal fundamentals of Natural resource use and environmental protection. - Possibility to carry out the following professional tasks: knowledge of environmental laws and the design of related documents, participation in scientific research in the field of ecology, nature conservation and other environmental sciences and the agricultural	Environment Impact Assessment, Environmental Analysis	Writing a thesis

						<p>sector, in organizations engaged in educational activities; laboratory research; collection and primary processing of material; participation in field research. Competence for the implementation of public administration in the agricultural sector and in the field of nature conservation and environmental management; services for environmental monitoring, environmental safety and environmental policy.</p> <ul style="list-style-type: none"> - Possession of methods for preparing environmental documentation for environmental review of various types of project analysis, environmental engineering studies to assess the environmental impact of various types of economic activity, including agriculture, methods for assessing the impact of economic activity on the environment and public health, assessment economic damage and risks to the environment, economic efficiency of environmental measures, fees for the use of natural and resources. - Implementation of environmental audit activities. Participation in the assessment of environmental impacts, the identification and diagnosis of environmental problems and the interaction systems of the agricultural sector, society and nature, the solution of ecological and geographical problems associated with sustainable development; analysis of private and general problems of the rational use of natural resources, in environmental management in the agricultural sector. 	
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The catalog of elective disciplines was approved by the Council protocol of the Faculty of Forestry,
Wildlife and Environment № 15

Head of the Department  Satybaldieva G.K.