BELARUSIAN STATE UNIVERSITY

CURRICULUM

Speciality: 1-33 80 01 Ecology

Profiling: Environmental management and green economy

Degree: Master
Period of study: 1 year
Full-time form of education

Registration number H33a-173/уч.

I. Schedule of the educational process

II. Summary (in weeks)

YEARS	Academic Studies	Exams	Internship	Research	Master's Thesis	Vacation	Total
I	25	5	2	8	2	2	44
	25	5	2	8	2	2	44

Designations:
☐ – Academic Studies ☒ – Internship // – Master's Thesis
: – Exams / – Research = – Vacation

III. Curriculum

№	The name of the module, academic discipline, course project (course work)	Exams	End-of-term test	Total	Total in class	Lectures	Laboratory work	Workshops	Seminar classes	1 semester, 16 weeks Total	1 semester Total in class	1 semester Credits	2 semester, 9 weeks Total	2 semester Total in class	2 semester Credits	Total Credits	Competence Code
1.	**State Component**			586	168	64		104		378	126	12	208	42	6	18	
1.1	**Module «Modern Issues of Ecology»**																UC-1,2,3, DPC-1,2
1.1.1	Theory and methodology for ecology research	1		90	42	20		22		90	42	3				3	
1.1.2	Innovative technologies in ecology and environmental protection	2		100	42	20		22					100	42	3	3	
1.2	**Module «Computer modeling in ecology»**																
1.2.1	Environmental data processing methods	1		90	42	12		30		90	42	3				3	UC-1, DPC-3
1.2.2	Computer visualization of environmental information		1	90	42	12		30		90	42	3				3	UC-1, DPC-4
1.3	**Module «Research practices for a dissertation»**																UC-1,3
1.3.1	Research Seminar		1,2	216						108		3	108		3	6	
2.	**Higher Education Institution Component**			820	398	146		252		450	220	15	370	178	12	27	
2.1	**Module «Sustainable development»**																SC-1
2.1.1	Global changes and environmental sustainability	1		90	42	20		22		90	42	3				3	
2.1.2	International cooperation and environmental protection/Global environmental projects	2		90	40	20		20					90	40	3	3	
2.2	**Module «Innovative green management»**																SC-2
2.2.1	Green economy and the market for environmental services		1	90	42	20		22		90	42	3				3	
2.2.2	Environmental risk management/Green Marketing and Carbon Neutrality	1		90	40	20		20		90	40	3				3	
2.2.3	Eco-certification of economic activities	1		90	42	22		20		90	42	3				3	
2.3	**Module «Environmental engineering»**																SC-3
2.3.1	Environmental impact evaluation of economic activities	2		90	42	22		20					90	42	3	3	
2.3.2	Ecological basis for spatial planning/Sustainable development of the urban environment	2		90	42	22		20					90	42	3	3	
2.4	**Module «Foreign language»**																SC-4, UC-2
2.4.1	Professional foreign language	2	1	190	108			108		90	54	3	100	54	3	6	
3.	**Optional Subjects**			/108	/56	/30		/26		/108	/56	/3					
3.1	Creative education technologies for Higher Education/Pedagogy and Psychology for Higher Education		/1	/108	/56	/30		/26		/108	/56	/3					UC-7
4.	**Additional Training**			/568	/316	/96	/36	/140	/44	/358	/202	/6	/210	/114	/9		
4.1	Philosophy and methodology of science[1]	/2		/240	/104	/60			/44	/140	/60		/100	/44	/6		UC-4
4.2	Fundamentals of information technology[1]		/1	/108	/72	/36	/36			/108	/72	/3					UC-6
4.3	Foreign language[1]	/2	/1	/220	/140			/140		/110	/70	/3	/110	/70	/3		UC-5

Number of Hours	1406	566	210		356		828	346	27	578	220	18	45	
Number of Hours per Week								22			24			
Number of Exams	9							5			4			
Number of End-of-term tests	6							4			2			

IV. Internship				V. Research			VI. Final Certification
Internship Title	Semester	Weeks	Credits	Semester	Weeks	Credits	Master's thesis defense
Research	2	2	3	2	8	12	

VII. Competence Matrix

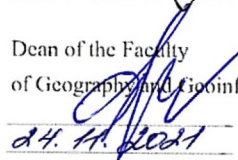| Competence Code	Competence Name	Module Code, Discipline Code
UC-1	Be able to apply scientific cognition (analysis, comparison, systematization, abstraction, modelling, data authenticity checking, decision-making etc.) in independent research activity, to generate and realize innovative ideas	1.1, 1.2.1, 1.2.2, 1.3
UC-2	Be able to improve and develop your intellectual and general cultural level, build a path of professional development and careers	1.1, 2.4
UC-3	Be able to analyze the relevance of scientific research, to set research objectives correctly, to apply scientificbased planning techniques, to possess methods of processing the results of theoretical and experimental research, to formulate conclusions correctly, to conduct reasoned discussions in scientific and professional issues	1.1, 1.3
UC-4	Be proficient at methodology of scientific knowledge, be able to analyze and evaluate the content and level of philosophical and methodological problems in solving task of scientific research and innovation	3.1
UC-5	Be master at foreign language for communication in an interdisciplinary and scientific environment, in various forms of international cooperation, research and innovation activities	3.2
UC-6	Have skills of using the contemporary information technologies for solving scientific research and innovative tasks	3.3
UC-7	Be able to perform pedagogical activity in education establishments, to master and to implement efficient education and information and communication technologies and pedagogical innovations	3.4
DPC-1	Master the theory and methodology of ecological sciences, navigate modern environmental problems at the global, regional and local level, understand the trends of their changes and possible consequences for the Republic of Belarus	1.1
DPC-2	Be able to understand and apply in professional activities the modern scientific achievements and innovative technologies in ecology, nature management and environmental protection	1.1
DPC-3	Be able to carry out a quantitative description of environmental processes and statistical processing of environmental data, generalize and systematize the results of performed reserch to use modern computer hardware	1.2.1
DPC-4	Be able to analyze the characteristics of raw environmental facts for creating figures, to systematize and to classify figures, to apply methods of obtaining and processing for spatial data, modeling, spatial analysis, visualization	1.2.2
SC-1	Be able to analyze aspects of sustainable development, identify the causes and assess environmental changes at the global, regional and local levels, to carry out the international cooperation in scientific development and practical implementation of sustainable development and environmental protection projects	2.1
SC-2	Be able to analyze the current state and prospects for the development of the green economy and the market of environmental services, use environmental risk management methods in organizing the activities of business entities, to develop innovative strategies and tools for responsible consumption, promotion and certification of environmental goods and services, evaluate the effectiveness of achieving carbon neutrality of the economy at the global, regional, local levels	2.2
SC-3	Be able to identify, to predict, to evaluate possible environmental impacts and environmental changesin the development of territorial and sectoral strategies, urban planning and construction project documentation, To create scientifical substantvation and to develop measures for environmental protection and rational use of natural resources, to apply environmental norms and rules in the practice	2.3
SC-4	Be able to analyze foreign-language texts with terminology and conceptual apparatus in the field of ecology and geoecology, to communicate in a foreign language in a professional sphere of knowledge, to master foreign experience and methodology of geoecological research, to solve professional problems using a variety of language tools	2.4

Developed on the basis of the model curriculum of the specialty 1-31 80 01 Ecology, approved on March 21,2019. Registration № G 31-2-002/pr-tip

[1] Series of Disciplines for Candidate Exams and Additional Training «Philosophy and Methodology of Science», «Information Technologies: Basics», «Foreign Language» are studied according to the choice of a student.

Vice-rector
for Academic Affairs and Education Innovations
24. 11. 2021   Oksana N. Zdrok
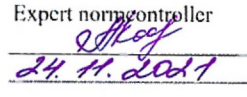
Dean of the Faculty
of Geography and Geoinformatics
24. 11. 2021   Dzmitry M. Kurlovich

Academic Affairs Department
Head
24. 11. 2021   Natalia I. Morozova

Expert normcontroller
24. 11. 2021   Anzhelika V. Kostenevich