

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
RIVNE STATE UNIVERSITY OF HUMANITIES**

**EDUCATIONAL PROFESSIONAL PROGRAM
«SECONDARY EDUCATION. BIOLOGY AND HUMAN HEALTH»
THE SECOND (MASTER'S) LEVEL OF HIGHER EDUCATION
IN SPECIALTY 014 Secondary Education (Biology and Human Health)
THE FIELD OF KNOWLEDGE 01 Education / Pedagogy
QUALIFICATION: Master of Secondary Education.
Teacher of Biology and Health Basics, Lecturer**

**APPROVED BY THE ACADEMIC COUNCIL
of Rivne State University of Humanities**


**The Head of the Academic Council
/professor Ruslan Postolovsky
(protocol No. 4 dated April 26, 2018)**

**Educational professional program enacts since
September 01, 2018
(order No. 86-01-01 dated May 21, 2018)**

Rivne 2018

LETTER OF APPROVAL
of the educational professional program

LEVEL OF HIGHER EDUCATION	The second (Master's) level of higher education
SPECIALTY	014 Secondary Education (Biology and Human Health)
FIELD OF KNOWLEDGE	01 Education / Pedagogy
QUALIFICATION	Master of Secondary Education. Teacher of Biology and Health Basics, Lecturer

CONTRIBUTED

by the Department of Biology, Oncology and Medical Physiology

Protocol No. 4 dated April 11, 2018

Head of the Department  Professor Vitaliy Martsynovskyy

AGREED

by the Academic Council of the Faculty of Psychology and Natural Sciences

Protocol No. 4 dated April 24, 2018

Chairman of the Academic Council  Associate Professor Vitaliy Pavelkiv

PREFACE

Developed by a project team consisting of:

project team leader:

*Nataliya Hrytsai, D. Sc. in Pedagogy, Professor,
Professor of the Biology and Human Health Department*

project team members:

*Larysa Oytsus, Ph. D. in Biology,
Associate Professor, Associate Professor
of the Biology and Human Health Department*

*Iryna Trokhymchuk, Ph. D. in Pedagogy,
Associate Professor, Associate Professor
of the Biology and Human Health Department*

External stakeholders reviews:

*Tatiana Kukharchuk – director of Rivne gymnasium of Humanities, Ph. D. in
Pedagogy;*

Natalia Buksha – Methodist of the KU «Rivne City Methodical Cabinet»;

*Olga Turchenyuk – teacher of Biology of the highest category of Rivne secondary
school No 11 (level 1-3) of Rivne City Council.*

**1. Profile of the educational professional program in specialty 014 Secondary Education
(Biology and Human Health)**

1 - General information	
The full name of the higher educational institution and structural unit	Rivne State University of Humanities; Faculty of Psychology and Natural Sciences
The Higher Education Degree and title of qualification in the language of the original	The second level of higher education. Master of Secondary Education. Teacher in Biology and Human Health, Lecturer
The official title of the educational program	«Secondary Education. Biology and Human Health»
The type of diploma and the volume of the educational program	Master's degree, unitary, 90 ECTS credits, the term of study – 1 year and 5 months
The availability of accreditation	-
The cycle/level	NQF (National Qualification Framework) of Ukraine – level 8, FQ-EHEA – second cycle, EQF-LLL – level 7
Prerequisites	Bachelor's degree, the educational qualification level of Specialist, Master's degree obtained in another specialty
The language(s) of education and training	Ukrainian
The duration of the educational program	for the period of study
The web-address of the permanent description of the educational program	http://www.rshu.edu.ua/navchannia/osvitni-prohramy/mahistr
2 – The purpose of the educational program	
The purpose of the educational program is to train highly qualified and competitive teachers / lecturers of Biology and Health Basics, aimed at forming general and specific competences in fulfilling professional tasks in educational institutions of various types, using innovative approaches, methods and technologies.	
3 – Characteristics of the educational program	
The subject area (field of knowledge, specialty, specialization (if available))	Field of knowledge – 01 Education / Pedagogy Specialty: 014 Secondary Education (Biology and Human Health) <i>The object of study</i> is a complex of psychological, pedagogical and biological sciences, aimed at the competent teaching of Biology and Health Basics in educational establishments of different types. <i>Aims of training</i> – application of acquired competences in professional activity taking into account current tendencies of development of biological education and science. <i>The theoretical content of the subject area</i> covers the concepts and regularities of biological education and science, principles, forms, methods, tools and technologies of teaching Biology and Health Basics. <i>Methods, techniques, technologies and tools.</i> Combining natural scientific research methods, techniques and technologies for teaching Biology and Health Basics.
The orientation of the educational program	Educational and professional

The main focus of the educational program and specialization	<p>General education. Formation of a specialist with a modern scientific outlook and creative thinking, capable of delivering competent teaching of Biology and Health Basics in educational establishments of different types.</p> <p>Key words: methodology of biological research, methodology of teaching Biology and Health Basics, biological systems, biodiversity, biogeocenoses, adaptation, educational process, biological education.</p>
The peculiarities of the educational program	<p>The structure of the program provides training on the basis of competent, student-centered and practice-oriented approaches. The educational program is implemented in an active professionally oriented educational environment. Particular attention is paid to modern methods and technologies of teaching Biology and Health Basics.</p> <p>The program offers a comprehensive approach to educational activities and is implemented through learning and practical training.</p> <p>Production (pedagogical), production (assistant's) and pre-diploma practices provide training for professionals in the real environment of future professional activity. The educational process uses the latest scientific and methodological achievements, implements a systematic approach in the formation of the content of professional educational disciplines, takes into account current trends in the development of biological education and science. Student preparation involves participation in international and all-Ukrainian scientific-practical conferences and seminars.</p>
4 – Graduates suitability for employment and further training	
The suitability for employment	<p>Graduates may work in occupations according to the National Classifier of Occupations CS 003: 2010 (as amended):</p> <p>2310.2 Lecturer of a higher educational institution 2320 Lecturer of a vocational institution 2320 Teacher of a general secondary educational institution 2351 Lecturer (teaching methods) 2359.2 Methodist-valeologist 2359.2 Teacher of Valeology</p>
Further training	<p>The ability to study according to the program of the third (educational and scientific) level of higher education.</p>
5 – Teaching and evaluation	
Teaching and studying	<p>Teaching and learning is based on competent, problematic and practically oriented approaches. Student-centered learning, self-study, contextual learning, a combination of lectures, practical and laboratories studies, using interactive methods, solving situational tasks and doing research.</p>
Evaluation	<p>Oral and written exams, credits, defense of practice reports, certification (defense of Master's thesis)</p>
6 – Program competences	
Integral competence (IC)	<p>IC The ability to solve complex tasks and problems in the field of professional activity and in the learning process, which involves research and implementation of innovations, and is characterized by uncertainty of conditions and requirements.</p>
General competences (GC)	<p>GC1 The ability to think abstractly, analyze and synthesize. GC2 Knowledge and understanding the subject area and professional activity.</p>

	<p>GC3 The ability to conduct research at an appropriate level.</p> <p>GC4 The ability to search, process and analyze information from various sources.</p> <p>GC5 The ability to learn and master modern knowledge, to apply knowledge in practical situations.</p> <p>GC6 The ability to identify, set and solve problems, adapt and act in a new situation.</p> <p>GC7 The ability to generate new ideas (creativity).</p> <p>GC8 Knowledge of the national language and at least one of the foreign languages at the level of professional communication.</p> <p>GC9 The ability to use information and communication technologies.</p> <p>GC10 The ability to work in a team and detect interpersonal interaction.</p> <p>GC11 The ability to implement a sustainable development strategy for the environmentally oriented social and individual consciousness.</p> <p>GC12 Implementation of safe activities.</p>
<p>Professional competences of the specialty (PC)</p>	<p>SPC1 The ability to analyze, establish causation and hierarchical relationships in the structure and functioning of living systems of different levels of organization.</p> <p>SPC2 The ability to use knowledge and skills in the fundamental sections of biology to study biological phenomena and processes, the ability to find, collect and summarize factual material, formulating reasonable conclusions.</p> <p>SPC3 The ability to analyze biological phenomena and processes in terms of current scientific research.</p> <p>SPC4 The ability to apply elements of theoretical and experimental research in professional activity.</p> <p>SPC5 The ability to use biological terminology in professional activities, operate systematic categories.</p> <p>SPC6 The ability to characterize the basic life processes of living organisms, establish the interdependence between the components of ecosystems.</p> <p>SPC7 The ability to understand the relationship between the structure and functions of living organisms, peculiarities of their behavior and adaptation in different ecosystems.</p> <p>SPC8 The ability to apply modern teaching methods and technologies in professional activities to ensure the quality of the educational process in biology and health basics.</p> <p>SPC9 The ability to organize excursions, observations and experiments in biology, compose creative tasks and exercises.</p> <p>SPC10 The ability to apply modern methods of diagnosing students' achievements, carry out pedagogical support of the processes of socialization and professional self-determination of students, prepare them for the conscious choice of lifestyle.</p> <p>SPC11 The ability to prevent hereditary diseases, develop ways to prevent the impact of negative environmental factors on human heredity, form a culture of sex relations.</p> <p>SC12 The ability to create a psychological microclimate that promotes pupil / student learning, regardless of their social, cultural and economic background.</p> <p>SC13 The ability to integrate health and wellness technologies into pedagogical activity.</p>

	<p>SPC14 The ability to form in students positive motivation for healthy lifestyle based on the development of life skills.</p> <p>SPC15 The ability to apply knowledge of biological disciplines to choose effective ways and means of preserving, promoting and restoring human health.</p>
	7 – Program learning outcomes
Program learning outcomes (PLO)	<p>PLO1 To know the basic foundations of psychology and pedagogy that contribute to the development of common culture and socialization of the individual.</p> <p>PLO2 To analyze best pedagogical experience and implement it in their professional activity.</p> <p>PLO3 To apply modern methods and technologies, including information ones, in teaching biology and health basics in professional activity.</p> <p>PLO4 To understand the current methodology of scientific search, the essence of scientific knowledge, modern methods of research, as well as information technology to the extent necessary for the implementation of scientific research in the field of biological science and education.</p> <p>PLO5 To characterize the structure of organisms as biological systems and levels of organization of living systems, the diversity of organisms, their basic properties, internal and external connections of systems; mechanisms of interaction in biogeocenoses; understand the conceptual aspects of monitoring the qualitative and quantitative composition of flora and fauna in biogeocenoses.</p> <p>PLO6 To know the peculiarities of the implementation of genetic information at different levels and stages of an organism development.</p> <p>PLO7 To identify the main stages of life development on Earth, mechanisms and directions of the evolutionary process, features of the evolution of unicellular and multicellular eukaryotes, factors of human evolution, systems of the organic world as a reflection of its historical development; mechanisms of adaptation of organisms to the environment.</p> <p>PLO8 To apply conceptual knowledge acquired through training and / or professional activity at the level of recent achievements, which are the basis for creative thinking and innovation, in particular in the context of research.</p> <p>PLO9 To solve complex tasks and problems that require updating and integration of knowledge, often in the case of incomplete / insufficient information and contradictory requirements.</p> <p>PLO10 To systematize and classify biological objects for the purpose of morpho-functional differentiation at the biogeocenotic and biosphere levels.</p> <p>PLO11 To determine the dependence of the features of wildlife kingdoms representatives functioning on the degree of organization of life form development, structure, place in ecosystems and importance for maintaining the stability of the biosphere; analyze and explain the functional characteristics and state of bio-ecological systems at different stages of their development and interconnection.</p> <p>PLO12 To plan class and extracurricular educational activities in biology and health basics with the further application and analysis;</p>

	<p>diagnose and monitor students' academic achievement in these subjects.</p> <p>PLO13 To carry out reflection and have the skills to evaluate and solve complex and unpredictable socially, personally and professionally significant problems and moderate choice of ways to solve them, taking into account new approaches and predictions.</p> <p>PLO14 To organize research and / or innovation activities at a sufficient professional level and publicize the results of scientific and methodological research in professional journals, seminars and conferences.</p> <p>PLO15 To know one of the foreign languages at the level necessary for working with educational and methodical literature on specialty and use it in professional activity.</p> <p>PLO16 To organize the lifelong learning process independently and improve with a high degree of autonomy the competencies acquired during training.</p> <p>PLO17 To understand the norms of own safe behavior, safe professional behavior towards other people and the natural environment; know the legal bases of labor protection, civil security and the legislation of Ukraine in the field of labor protection and civil protection of the population and territories.</p> <p>PLO18 To interact / communicate effectively individually, in a team, in a multidisciplinary environment, adhere to the modern principles of tolerance, dialogue and cooperation in their activities.</p> <p>PLO19 To know the basic principles of preservation and promotion of health, form the value orientations concerning a healthy way of life; apply health and wellness technologies in the educational process.</p> <p>PLO20 To use computer skills and advanced information technology skills to solve experimental and practical problems in the field of biological education and science.</p>
--	--

8 – Resource support for the implementation of the program

Personnel support	Scientific and pedagogical employees who carry out the educational process have an experience of scientific and pedagogical activity for more than two years and the level of scientific and professional activity, which is certified by the fulfillment of at least four types and results of professional activity of a person (p. 30 of the Licensing Conditions for conducting educational activities of 30.12.2015 No. 1187 (as amended by the resolution of the Cabinet of Ministers of Ukraine dated May 10, 2018 No. 347).
Material and technical support	Material and technical support meets the licensing requirements for the provision of higher education services and is sufficient to ensure the quality of the educational process.
Information, teaching and methodological support	Information, teaching and methodological support of the educational program "Secondary education. Biology and Human Health" for training specialists in the specialty 014 Secondary education (Biology and Human Health) meets the licensing requirements, has up-to-date and meaningful content, based on modern information and communication technologies.

9 — Academic mobility

National Credit Mobility	On the basis of bilateral agreements between Rivne State University of Humanities, higher education institutions and scientific institutions of Ukraine. (Regulations on the Procedure for Exercising the Right to
---------------------------------	---

	Academic Mobility of Rivne State University of Humanities: http://www.rshu.edu.ua/images/navch/pol_akadem_mob_2017.pdf)
International Credit Mobility	On the basis of bilateral agreements between Rivne State University of Humanities and foreign higher education institutions. (Regulations on the Procedure for Exercising the Right to Academic Mobility of Rivne State University of Humanities: http://www.rshu.edu.ua/images/navch/pol_akadem_mob_2017.pdf)
Teaching foreign applicants for higher education	Possible

2. The list of the components of the educational professional program (EPP) and the logic consequence

2.1. The list of EPP components

Code of discipline	Semester	Components of EPP (disciplines, traineeships, qualification thesis)	Number of credits	Assessment form
Mandatory components of EPP				
MC01	1	Pedagogy of Higher Education	3	Exam
MC02	2	Psychology of Higher Education	3	Credit
MC03	3	Foreign Language (Professional Direction)	3	Exam
MC04	1	Methodology and Methods of Scientific Research in the Field of Biology	3	Credit
MC05	1	Computer and Information Technologies in Science and Education	3	Credit
MC06	1	Healthy Lifestyle Concepts	4	Exam
MC07	3	Biogeocenology	3	Exam
MC08	2	Biodiversity	4	Exam
MC09	2	Cytogenetic Bases of Organisms Development	3	Credit
MC10	3	Historical Development of Biological Systems	3	Credit
MC11	2	Teaching Methods of Biology in Higher Education Institutions	4	Exam
MC12	1	Innovative Technology of Biology and Health Basics	4	Exam
MC13	1	Medical, Biological, Psychological and Valeological Aspects of Family Planning	4	Credit
MC14	1	Industrial (pedagogical) Traineeship	9	Credit
MC15	2	Research (assistant) Practicum	6	Credit
MC16	3	Pre-Diploma Traineeship	6	Credit
<i>Total amount of the objective components:</i>			65	
Components by students' choice of EPP				
SC01	3	Philisophy and Methodology of Science	3	Credit
SC02	3	Social Philosophy	3	Credit
SC03	2	Civil Security	3	Exam
SC04	2	Sustainable Development Concept	3	Exam
SC05	3	Regulatory Systems of the Human Body	3	Exam
SC06	3	Fundamentals of Ethology	3	Exam
SC07	2	Genetic Analysis	4	Credit
SC08	2	Molecular Genetics	4	Credit
SC09	3	Cellular Biotechnology and Genetic Engineering	3	Credit
SC10	3	Biosafety and Bioethics	3	Credit

SC11	3	Methodology of Conducting Excursions in Biology	3	Credit
SC12	3	Methodology for Solving Problems in Biology	3	Credit
SC13	3	Physiology of Higher Nervous Activity	3	Credit
SC14	3	Comparative Physiology	3	Credit
SC15	2	Extra-curricular Work on Biology and Health Basics	3	Credit
SC16	2	Naturalistic Work in Educational Institutions	3	Credit
<i>Total amount of the selective components:</i>			25	
General amount of the EPP			90	

3. Form of certification of higher education applicants

Certification of graduates of the educational professional program "Secondary education. Biology and Human Health" of specialty 014 Secondary education (Biology and Human Health) is conducted in the form of public defense of the qualification (master's) thesis and ends with the issuance of the standardized certificate of awarding a master degree with the qualification: Master of secondary education, teacher of Biology and Health Basics, lecturer.

The certification of higher master's degree applicants is carried out by the Examination Commission (EC) in order to establish the actual compliance of the level of preparation with the requirements of the educational program. The EC may include representatives of employers and their associations in accordance with the provisions of the Examination Commission approved by the Academic Council of Rivne State University of Humanities. The Head of the EC is appointed by the Ministry of Education and Science of Ukraine upon the proposal of the Rector of Rivne State University of Humanities from among highly qualified scientific and pedagogical university staff in the relevant field of knowledge. The EC includes lecturers of the graduating department, representatives of employers, leading experts in the field of education. The staff of the EC is approved by the rector no later than one month before the start of work.

The certification should be open and public.

The work of the EC is carried out within the terms stipulated in the curricula. The work schedule of the EC is approved by the rector.

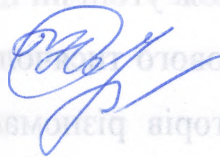
Qualification (master's) thesis is a scientific work performed by a master's student independently on the basis of theoretical knowledge and practical skills acquired during the entire period of study and research work, connected with the development of specific theoretical and practical problems of innovative character, determined by the specifics of the specialty.

Qualification (master's) thesis is a scientific and practical work, containing scientifically reasonable theoretical and experimental results, conclusions and recommendations, and indicates the student's ability to carry out scientific research independently.

- 3) the annual evaluation of higher education applicants, scientific and pedagogical staff of the higher education institution and the regular publication of the results of such evaluations on the official website of the higher education institution, on information stands and in any other way;
- 4) providing advanced training for pedagogical, scientific and scientific-pedagogical staff;
- 5) providing the availability of the necessary resources for organizing the educational process, including the independent work of higher education applicants on each educational program;
- 6) ensuring the availability of information systems for effective management of the educational process;
- 7) ensuring publicity of information on educational programs, degrees of higher education and qualification;
- 8) ensuring an effective system of preventing and detecting academic plagiarism in the scientific works of higher education institutions employees and applicants;
- 9) other procedures and measures.

The higher education institution's system of quality assurance in education activity and higher education (system of internal quality assurance) on the submission of Rivne State University of Humanities can be evaluated by the National Higher Education Quality Agency or its accredited independent Higher Education Quality evaluation and assurance agencies for its responsibility to the requirements of the system of quality assurance in higher education which is approved by the National Higher Education Quality Agency and the international standard and guidelines for quality assurance in higher education

Guarantor of the
educational program,
project team leader,
Professor



Nataliia Hrytsai