

**Federal State Autonomous Educational Institution for Higher Education  
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA (RUDN University)**

**Educational Division (faculty/institute/academy):**  
Institute of Ecology

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COURSE SYLLABUS

**INTERDISCIPLINARY EXAM**

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**Recommended by the Didactic Council for the Education Field for the specialization:**

**44.04.02 “Psychological and pedagogical education”**

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The mastering of the course is carried out as part of the implementation of the main professional syllabus (Higher Education programme, specialization)

**Environmental Pedagogy**  
*(master's programme)*

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**AGREED:**

Head of the Higher Education  
Programme

Y.L. Zakirova

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(подпись)

«\_\_» \_\_\_\_\_ 202\_\_ г.

Chairperson of the Didactic  
Council

(подпись)

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Head of the Department

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(подпись)

«\_\_» \_\_\_\_\_ 202\_\_ г.

**Moscow, 2022**

The program of the Final State Attestation in the field of study **44.04.02 “Psychological and pedagogical education”** (Master's level) is compiled in accordance with the requirements of the RUDN University Educational Standard, approved by the RUDN University Academic Council, protocol No. 2 dated February 18, 2020, the Rules for the preparation and execution of the final qualification work of a graduate of RUDN University (decision of the Academic Council of the University of November 28, 2016, protocol No. 13), the procedure for conducting the state final certification of students in higher education programs - bachelor's programs, specialist's programs and master's programs at RUDN University (new edition, approved by Rector's Order No. 790 dated October 13, 2016).

Training of students in the field **44.04.02 “Psychological and pedagogical education”** is carried out at RUDN University, including the specialization "**Environmental Pedagogy**".

This Program defines a set of requirements for the state final certification in the field of study **44.04.02 “Psychological and pedagogical education”**, specialization "**Environmental Pedagogy**".

The state final certification is carried out by the state examination and certification commission in order to determine the compliance of the results of mastering the main professional educational program by students with the relevant requirements of Part 4 of Art. 59 of the Federal Law "On Education in the Russian Federation", edition of December 29, 2012 No. 273-FZ (as amended).

Students who have successfully completed the main professional educational program in the field of study **44.04.02 “Psychological and pedagogical education”**, specialization "**Environmental Pedagogy**" are allowed to the final attestation tests, which are part of the state (final) attestation.

The state final certification of students is carried out in the form of:

- interdisciplinary state exam;
- defense of the final qualifying work in the format of a master's thesis.

Successful completion of the state final certification is the basis for issuing to the student a document on higher education and on the qualification of the sample established by the Ministry of Education and Science of the Russian Federation (part 4 of article 60 of the Federal Law of December 29, 2012 No. 273-FZ "On Education in the Russian Federation).

## **1. GENERAL CHARACTERISTICS**

### **1.1 Characteristics of the professional activities of students**

The master's program in the field of study **44.04.02 “Psychological and pedagogical education”**, specialization **“Environmental Pedagogy”** is a practice-oriented applied master's program.

Graduates who have completed the master's program are highly qualified specialists who are able to effectively design and implement the educational process in the natural sciences in educational institutions of various levels using appropriate pedagogical technologies and observing the ethics of relationships, taking into account the peculiarities of organizing educational and extracurricular work in the education system.

The field of professional activity of graduates who have mastered the master's program includes education, social sphere, culture. Objects of professional activity of the graduate: training, education, development, educational systems.

Potential consumers of graduates of the educational program are:

- educational institutions of different levels of education;
- municipal and regional structures carrying out activities for the protection of the environment and natural resources;
- research organizations and centers whose activities are related to the development and improvement of innovative psychological and pedagogical technologies;
- national and international public organizations.

A master who is studying in the educational program "Environmental Pedagogy / Environmental Pedagogy" is preparing for the following types of professional activities:

- pedagogical;
- methodical.

A master who is educated in the main, practice-oriented educational program "Environmental Pedagogy / Ecological Pedagogy" must be prepared to solve professional problems in accordance with the OS of HE of RUDN University and the profile focus of the master's program. A graduate of a master's program must possess the following main types of professional activity, namely, to have knowledge, skills and abilities in the field of pedagogical activity:

- design and implementation of the pedagogical process in the natural sciences in an educational institution under the programs of basic general, secondary general education and additional, including vocational education, using pedagogical technologies that correspond to the age characteristics of students;

- observance of the ethics of relationships, taking into account the peculiarities of the organization of educational and extracurricular work in the education system;

- studying the possibilities, needs, achievements of students in the field of education and designing educational programs, disciplines and individual training routes based on the results obtained,

- organization of interaction with public and educational organizations, groups of students and parents to solve the problems of professional activity;

- using the educational environment to ensure the quality of education, including the use of information technology;

- implementation of professional self-education and personal growth, designing a further educational route and professional career.

A graduate should also have the following additional knowledge, skills and abilities in the field of methodological activities:

- implementation of educational and methodological support for the implementation of basic and additional, including professional programs;

- implementation of research support for the implementation of basic and additional, including professional programs.

## 1.2 Requirements to the results of mastering the master's program

The results of mastering the main educational program "Environmental Pedagogy" represent knowledge, skills in the form of acquired universal, general professional, professional competencies at the time of graduation from the university.

Universal (UC-1 – UC-7) and general professional competencies (GPC-1 - GPC-8) are formulated in p.p. 3.1-3.3 of the Educational standard of the HE RUDN University in the field **44.04.02** “Psychological and pedagogical education”.

### Universal competencies (UC-1 – UC-7) and indicators of their achievement:

Code and name of the graduate's competence	Code and name of the indicator of achievement of competence
UC-1. Able to carry out a critical analysis of problem situations based on a systematic approach, to develop an action strategy.	UC-1.1. Knows ways to solve problematic problems and identify their components and relationships between them.
	UC-1.2. Able to search for solutions to a problematic task based on available and reliable sources of information.
	UC-1.3. Owns a strategy for solving a problem situation based on a systematic and interdisciplinary

	approach.
<b>UC-2.</b> Able to manage a project at all stages of its life cycle.	UC-2.1 Formulates on the basis of the problem posed a project task and a way to solve it through the implementation of project management.
	UC-2.2 Develops the concept of the project within the framework of the designated problem (in the chosen professional area): formulates the goal, objectives, justifies the relevance, significance (scientific, practical, methodological and other depending on the type of project), expected results and possible areas of their application.
	UC-2.3 Plans the necessary resources, including taking into account their replaceability.
	UC-2.4 Plans the necessary resources, including taking into account their replaceability.
<b>UC-3.</b> Able to organize and manage the work of the team, developing a team strategy to achieve the goal.	UC-3.1 Has the skills to monitor the implementation of requirements.
	UC-3.2 Able to develop a team work plan.
<b>UC-4.</b> Able to apply modern communication technologies, including in a foreign language(s) for academic and professional interaction.	UC-4.1 Knows the lexical, grammatical, stylistic, socio-cultural features of the scientific style, the academic sub-style of the scientific style of natural science disciplines in Russian and the foreign language being studied.
	UC-4.2 Owns professional vocabulary in a foreign language; orthographic, orthoepic, lexical, grammatical, stylistic norms of scientific speech; strategies of perception and generation of oral and written scientific texts in the specialty.
	UC-4.3 Able to extract new information based on the analysis of foreign-language scientific literature and other sources; select and systematize materials on a given / selected topic and draw up annotations, abstracts, reviews in foreign and Russian languages;

	translate scientific literature in the specialty from a foreign language into Russian.
	UC-4.4 Presents the results of research and project activities at various public events, participates in academic and professional discussions in Russian (foreign) language.
<p><b>UC-5.</b> Able to analyze and take into account the diversity of cultures in the process of intercultural interaction.</p>	<p>UC-5.1 Adequately explains the behavior and motivation of people of different social and cultural backgrounds in the process of interacting with them, based on knowledge of the causes of the emergence of social customs and differences in people's behavior.</p>
	<p>UC-5.2 Has the skills to create a non-discriminatory environment for interaction in the performance of professional tasks.</p>
<p><b>UC-6.</b> Able to identify and implement the priorities of their own activities and ways to improve it based on self-esteem.</p>	<p>UC-6.1 Able to analyze large amounts of information of professional content.</p>
	<p>UC-6.2 Able to analyze, synthesize and optimize solutions to the tasks.</p>
<p><b>UC-7.</b> Able to search for the necessary sources of information and data, perceive, analyze, memorize and transmit information using digital means, as well as using algorithms when working with data received from various sources in order to effectively use the information received to solve problems; evaluate information, its reliability, build logical conclusions based on incoming information and data.</p>	<p>UC-7.1 Apply the methods of statistics in scientific and practical research; computer means of data processing and problem solving.</p>
	<p>UC-7.2 Formulates the problem of processing real data in terms of a real problem.</p>
	<p>UC-7.3 Knows the principles and techniques of modern corporate information culture and the basics of the digital economy</p>

**General professional competencies (OPK-1–OPK-7) and indicators of their achievement:**

<b>Code and name of the graduate's competence</b>	<b>Code and name of the indicator of achievement of competence</b>
<p><b>OPK-1.</b> Able to carry out and optimize professional activities in accordance with regulatory legal acts in the field of education and professional ethics.</p>	<p><b>OPK-1.1</b> Knows the priority directions for the development of the educational system, laws and other legal acts regulating educational activities.</p>
	<p><b>OPK-1.2</b> Able to carry out professional activities in accordance with the regulatory legal acts in the field of education and the norms of professional ethics.</p>
	<p><b>GPC-1.3</b> Owns actions to comply with legal, moral and ethical standards, requirements of professional ethics - in the conditions of professional activity; actions for the implementation of professional activities in accordance with the requirements of federal state educational standards for preschool, elementary general, basic general, secondary general education.</p>
<p><b>OPK-2.</b> Able to design basic and additional educational programs and develop scientific and methodological support for their implementation.</p>	<p><b>OPK-2.1</b> Knows the principles, methods and approaches to the design of basic and additional educational programs, the main approaches to the development of scientific and methodological support for the implementation of programs.</p>
	<p><b>GPC-2.2</b> Able to develop the target, content and organizational sections of the main and additional educational programs of the educational process; develop program content elements and implement them selection taking into account the planned educational results; select elements of the content of programs, determine the principles their succession, determine the planned educational results; develop scientific and methodological support program implementation.</p>
	<p><b>GPC-2.3</b> Able to develop the target, content and organizational sections of the main and additional educational programs taking into account the planned</p>

	<p>educational results; carry out the design of basic and additional educational programs, taking into account the planned educational results; select and structure the content of basic and additional educational programs; develops scientific and methodological ensuring the implementation of basic and additional educational programs.</p>
<p><b>OPK-3.</b> Able to design the organization of joint and individual educational and educational activities of students, including those with special educational needs.</p>	<p><b>GPC-3.1</b> Knows modern methods and technologies for organizing educational activities, the principles and content of the theory of pedagogical design; general patterns of child development, modern pedagogical technologies for the implementation of activity and competence-based approaches, taking into account the age and individual characteristics of students, including those with special educational needs; individual and group technologies training and education.</p>
	<p><b>GPC-3.2</b> Able to plan and organize educational and educational activities in accordance with the age and psycho-physiological characteristics and individual educational needs of students, to carry out educational cooperation and joint educational activities; organize independent activities of students, including educational, research and design; plan and implement the educational process in accordance with the main general educational program, select various types of educational tasks (educational, educational, practical, educational and gaming) and organize their solution (in an individual or group form) in accordance with the level of cognitive and personal development of students .</p>
	<p><b>GPC-3.3</b> Able to analyze the contingent of students, clarify and modify the planning of the educational and educational process; develop and implement methodological methods of training and education,</p>



	<p>taking into account the contingent of students with special educational needs; use modern information and communication technologies and mass media in the practice of professional activity; develop training sessions taking into account the characteristics of the student population, implement group and individual technologies for training and education; plan the educational and educational process for a group, class and / or individual contingents of students with outstanding abilities and / or special educational needs based on existing programs and their own developments, taking into account the specifics of the composition of students.</p>
<p><b>OPK-4.</b> Able to create and implement the conditions and principles of spiritual and moral education of students on the basis of basic national values.</p>	<p><b>GPC-4.1</b> Knows the principles, theories, methods of spiritual and moral education, methods and forms of organizing the education of students on the basis of basic national values.</p> <p><b>GPC-4.2</b> Knows how to apply elements of educational methods, forms and means of students based on basic national values.</p> <p><b>GPC-4.3</b> Owns ways to create conditions for the spiritual and moral education of students on the basis of basic national values.</p>
<p><b>OPK-5.</b> Able to develop programs for monitoring the results of students' education, develop and implement programs to overcome learning difficulties.</p>	<p><b>GPC-5.1</b> Knows the ways and methods of organizing monitoring studies, the typology of monitoring, methodological monitoring tools; the technology of diagnosing educational results, the principles of diagnosing, understands the mechanisms for identifying individual characteristics, prospects for the development of the student's personality, ways to overcome learning difficulties.</p> <p><b>GPC-5.2</b> Able to develop programs for monitoring the results of mastering the educational program by students, is able to develop programs of targeted activities to overcome learning difficulties; select</p>

	<p>diagnostic tools, analyze the results of a diagnostic study, organize pedagogical interaction with specialists in the field of education (psychologist, social pedagogue, etc.).</p>
	<p><b>GPC-5.3</b> Able to organize and conduct pedagogical monitoring of the development by students of the educational program of the level of training; use modern methods of diagnostics and monitoring, taking into account the use of information and communication technologies; to adjust educational activities based on the data of monitoring educational results, taking into account individual capabilities and educational needs of students and design a set of measures to overcoming learning difficulties; select diagnostic tools, analyze educational the results of students, to implement the pedagogical recommendations of specialists (psychologist, defectologist, etc.) in working with students who experience difficulties in mastering the program, as well as with students with special educational needs.</p>
<p><b>OPK-6</b> Able to design and use effective psychological and pedagogical, including inclusive, technologies in professional activities, necessary for the individualization of education, development, education of students with special educational needs.</p>	<p><b>GPC-6.1</b> Knows the general and specific features of the psychophysical development of students with special educational needs; psychological and pedagogical foundations of educational activity; design principles and features of the use of psychological and pedagogical (including inclusive) technologies in professional activities, taking into account the personal and age characteristics of students, including those with special educational needs.</p> <p><b>GPC-6.2</b> Knows how to design special conditions for inclusive education of students with special educational needs; organize the activities of students with disabilities to master the adapted educational program; apply educational technologies for the individualization of education, development, education of students,</p>

	including those with special educational needs.
<p><b>OPK-7</b> Able to plan and organize the interaction of participants in educational relations.</p>	<p><b>GPC-6.3</b> Has the skills to take into account the peculiarities of the development of students in the educational process; selection skills and use of psychological and pedagogical (including inclusive) technologies in professional activities for individualization of training, development, education, including students with special educational needs.</p>
<p><b>GPC-8</b> Able to arrange pedagogical activities based on special scientific</p>	<p><b>GPC-7.1</b> Knows the features of building interaction with various participants in educational relations, taking into account the peculiarities of educational environment of the institution mechanisms and technologies of interaction between participants in educational relations.</p> <p><b>GPC-7.2</b> Knows how to use the features of the educational environment of the institution to implement the interaction of subjects; draw up (together with other specialists) plans for the interaction of participants in educational relations; use technologies and methods of organizing the interaction of participants in educational relations; use social networks to organize interaction with various participants in educational activities.</p> <p><b>GPC-7.3</b> Able to plan and organize the interactions of participants in educational relations, taking into account the main patterns of age development; use in the course of planning and organizing the interaction of participants in educational relations indicators of their individual characteristics; use technologies and methods of organizing the interaction of participants in educational relations for the implementation of educational activities; use the possibilities of social networks to organize the interaction of various participants in educational activities.</p> <p><b>GPC-8.1</b> Knows the modern methodology of pedagogical design, the state and development trends of</p>

knowledge and research results	international and domestic pedagogical research; methodology and technology for designing pedagogical activity, the content and results of research in the field of pedagogical design.
	<b>GPC-8.2</b> Able to identify and systematize the main ideas and results of international and domestic pedagogical research; apply modern scientific knowledge and materials of pedagogical research in the process of pedagogical design; determine the purpose and objectives of organizing pedagogical activity based on the conditions of the pedagogical situation; assess the pedagogical situation and determine pedagogical tasks, use the principles of the project approach in the implementation of pedagogical activities.
	<b>GPC-8.3</b> Able to identify and systematize the main ideas and results of international and domestic pedagogical research; apply modern scientific knowledge and materials of pedagogical research in the process of pedagogical design; determine the purpose and objectives of designing pedagogical activity based on the conditions of the pedagogical situation; assess the pedagogical situation and determine pedagogical tasks, use the principles of the project approach in the implementation of pedagogical activities.

In addition, a graduate who has mastered the basic educational program of the master's program "Environmental Pedagogy", in accordance with OS VO RUDN University, professional standard 01.001 "Teacher (pedagogical activity in the field of preschool, primary general, basic general, secondary general education) (educator, teacher)" must have the following mandatory professional competencies corresponding to pedagogical and methodological activities.

**Professional competencies (PC-1 - PC-2) and indicators of their achievement**

<b>Code and name of the graduate's competence</b>	<b>Code and name of the indicator of achievement of competence</b>	<b>Code and name of the professional standard on the basis</b>
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		<b>of which the PC was formulated</b>
In methodical activity:		
<b>PC-1</b> Able to carry out research support and educational and methodological support for the implementation of basic and additional, including professional programs.	<b>PC-1.1</b> Able to carry out research support for the implementation of basic and additional, including professional programs.	<b>01.001</b> Teacher (pedagogical activity in the field of preschool, primary general, basic general, secondary general education) (educator, teacher)
	<b>PC-1.2</b> Able to provide educational and methodological support for the implementation of basic and additional, including professional programs.	
In pedagogical activity:		
<b>PC-2</b> Able to design and implement the educational process in the natural sciences under the programs of basic general, secondary general education and additional, including vocational education.	<b>PC-2.1</b> Able to design the educational process in the natural sciences according to the programs of basic general, secondary general education and additional, including vocational education.	<b>01.001</b> Teacher (pedagogical activity in the field of preschool, primary general, basic general, secondary general education) (educator, teacher)
	<b>PC-2.2</b> Able to implement the educational process in the natural sciences under the programs of basic general, secondary general education and additional, including vocational education.	

### **1.3 Organization and the process of state (final) certification**

Students who do not have academic debts and who have fully completed the individual curriculum for the mastered educational program of higher education are allowed to the state final certification (part 6 of article 59 of the Federal Law of December 29, 2012 No. 273-FZ "On Education in the Russian Federation ").

For students from among persons with disabilities, the state final certification is carried out taking into account the peculiarities of their psychophysical development, their individual capabilities and state of health. The procedure for organizing and conducting forms of state final certification for students from among persons with disabilities is determined by the Procedure for conducting final state certification of students in higher education programs - bachelor's programs, specialist's programs and master's programs at FSAEI HE Peoples' Friendship University of Russia.

Students who have not passed the state final certification due to failure to appear at the state certification test for a good reason (temporary disability, performance of public or state duties, subpoena, transport problems - flight cancellation, lack of tickets, weather conditions) have the right to pass it during 6 months after the completion of the state final certification. The student must submit to the University a document confirming the good reason for his

absence no later than 7 working days after the completion of the state final certification.

Students who have not passed the next state attestation test on time for a good reason are allowed to take the next state attestation test.

Students who have not passed the state attestation test due to failure to attend the state attestation test for an unexcused reason or in connection with receiving an “unsatisfactory” grade are expelled from the University with the issuance of certificates of study to them, as they have not fulfilled their obligations for the conscientious development of the educational program and the implementation of the curriculum . Students from among persons with disabilities who did not pass the state attestation test within the time period established for them for a disrespectful reason or in connection with receiving an “unsatisfactory” grade are also expelled from the University with the issuance of certificates of study to them.

A person who has not passed the state final certification may re-pass the state final certification no earlier than one year and no later than five years after the deadline for the state final certification, which was not passed by the student.

In order to re-pass the state final attestation, the specified person, upon his application, can be reinstated at the University to study in the relevant educational program for a period of time established by the University, but not less than the calendar schedule of the educational process for the state final attestation in the relevant educational program.

When re-passing the state final certification, by the decision of the University and at the request of the student, a new topic for the final qualification work can be approved.

According to the results of state certification tests, the student has the right to appeal. The procedure for organizing and conducting an appeal of the results of passing state certification tests is determined by the Procedure for conducting the final state certification of students in higher education programs - bachelor's programs, specialist's programs and master's programs at the Peoples' Friendship University of Russia.

To conduct the state final certification and appeals based on the results of the state final certification at the University, by order of the Rector, state examination and appeal commissions are created, which operate during the calendar year.

## **2. REQUIREMENTS FOR PREPARATION AND PROCEDURE FOR THE STATE EXAM**

### **2.1 Preparation for the state exam**

To determine the results of mastering the main educational program of the master's program "**Environmental Pedagogy**" in the field **44.04.02 “Psychological and pedagogical education”**, a state exam is held in accordance with the approved schedule.

Exam questions reflecting the content of the disciplines of the basic and optional parts are designed to assess the knowledge, skills and abilities of students and include the solution of practice-oriented tasks. Exam questions are compiled by lecturers who conduct the educational process in accordance with the working curriculum and are agreed with the head of the main educational program. The content of the questions is approved by the MSTS and the dean of the Institute of Environmental Engineering no later than six months before the date of the exam, a list of questions for self-study is published on the portal of the TUIS system.

Before the state exam, students are consulted (pre-examination consultation) on the issues included in the state exam program.

Students who do not have academic debts are allowed to participate in the state exam. By decision of the examination committee, the state examination may be held in one or several days, depending on the number of students admitted to take it.

## **2.2 The theoretical part of the state exam of the main educational master's program "Environmental Pedagogy"**

The content of the theoretical part of the state exam correlates with the results of mastering the program, covers all competencies and corresponds to the indicators of mastering these competencies.

### **An approximate list of theoretical questions for preparing for the state exam**

#### **General questions (on basic disciplines)**

1. Modern pedagogical concepts, scientific approaches to the study of problems of environmental education.
2. Classification of research methods in Pedagogy and Psychology.
3. Methodological foundations of pedagogical scientific research.
4. The concept and main goal of environmental education.
5. The relevance of environmental education in the context of the global environmental crisis.
6. Modern research in the field of environmental education as research at the intersection of Philosophy, Environmental Science, Psychology and Pedagogy.
7. The biosphere from the standpoint of Environmental Culture.
8. Environmental dimension of sustainable development.
9. Global environmental challenges and environmental problems in socio-cultural, political and economic contexts.

10. Environmental law and social justice
11. The doctrine of the biosphere by V.I. Vernadsky.

### **Special questions (on variable disciplines)**

12. Methods of teaching Environmental Science.
13. The system of environmental education.
14. Qualification characteristics of a teacher-ecologist.
15. Professional duties of a teacher-ecologist.
16. The system of forms of teaching Environmental Science.
17. General characteristics of the forms of teaching ecology.
18. Material base for teaching ecology.
19. Structure and content of environmental education.
20. National curriculum.
21. Environmental risk perception.
22. Influence of psychogenic environmental factors on the mental state and development of the human psyche.
23. Approaches to the problems of environmental ethics: anthropocentrism, biocentrism, ecocentrism.

### **2.3 The procedure of the state exam**

The state examination is conducted by the state examination commission. When conducting the state exam, the examination committee is obliged to ensure the unity of the requirements for graduates, and the conditions for objective assessment of the quality of mastering the educational program by graduates:

- conducting a state exam should be strictly within the framework of the procedure;
- placement of graduates in class during the exam at a sufficient distance from each other;
- exclusion of the use, as well as attempts to use educational, reference or methodological materials, educational and other literature (with the exception of those permitted for use in the state exam), notes, cheat sheets, regardless of the type of information carrier, as well as any technical means, means of transmitting information and tips .
- objective assessment during the state exam of the graduate's own knowledge according to the developed and approved criteria in accordance with the grading system.

By the beginning of the state exam, the following documents are submitted to the state examination commission:



- The state standard of education in the field **44.04.02 “Psychological and pedagogical education”**;

- list of students admitted to the state exam;

- examination sheets;

- record books of students admitted to the state exam.

The Secretary of the State Examination Commission keeps minutes. The results of passing the state exam are entered into the examination sheets and record books. The procedure for conducting the exam and the form for filling out the minutes of the meeting of the state examination committee are presented in the Procedure for conducting the state final certification for educational programs of higher education - bachelor's programs, specialist's programs and master's programs at RUDN University.

The results of assessment are announced on the same day after the execution of the minutes of the meetings of the state examination commission in the prescribed manner. In case of disputable situations, the certified person is given the opportunity to verbally answer additional questions from the commission members.

In case of divergence of opinion of the members of the state examination committee on the final assessment, the decision is made at a closed meeting by a simple majority of votes of the members of the commission participating in the meeting, with the obligatory presence of the chairman or his deputy. In case of an equal number of votes, the chairman's vote is decisive.

The final grade for the exam is recorded in the minutes of the meeting of the state examination committee, put down in the examination sheet and the student's record book, where the chairman and members of the state examination committee sign.

Passing the state exam is the most important type of certification tests for graduates in assessing the quality of their theoretical training and requires the chairman and members of the state examination committee, as well as students of high pedagogical culture, tact, mutual courtesy, respect and objectivity in assessment.

#### **2.4 Criteria for assessing the knowledge of students based on the results of passing the state exam**

The results of the state exam are determined by the marks "excellent", "good", "satisfactory" or "unsatisfactory". A student who receives an "unsatisfactory" grade is considered to have failed the state exam.

When evaluating graduate's answers, the number and nature of errors (significant or insignificant) are taken into account. The grade for the passed exam is given to the certified

person as the ratio of correct answers to the total number of answers in fractions of one, then converted into points.

The amount of points obtained at the state exam is transferred to the grade and category according to the international scale ECTS - European Credit Transfer and Accumulation System (European system of transfer and accumulation of points):

- "excellent", category A - from 96 to 100 points;
- "excellent", category B - from 86 to 95 points;
- "good", category C - from 69 to 85 points;
- "satisfactory", category D - from 61 to 68 points;
- "satisfactory", category E - from 51 to 68 points;
- "unsatisfactory", category FX - from 31 to 50 points;
- "unsatisfactory", category F - from 0 to 30 points

### **3. PROCEDURE FOR THE PREPARATION AND DEFENSE OF THE FINAL QUALIFICATION WORK IN THE FORMAT OF A MASTER'S THESIS**

#### **3.1 General**

The final qualifying work for students in the field **44.04.02 “Psychological and pedagogical education”** is a master's thesis. A master's thesis is a work done by a student, demonstrating the level of preparedness of a graduate for independent professional activity.

The procedure for organizing, performing, monitoring, defending a master's thesis is reflected in the Rules for the preparation and implementation of the final qualification work of a RUDN graduate (approved by order of the Rector No. 878 of November 30, 2016)

The main objectives of the master's thesis are:

- deepening, consolidating and systematizing theoretical and practical knowledge and applying this knowledge in solving practical problems related to the future professional activities of graduates;
- development of skills for conducting independent analysis, formulating conclusions when considering problems of an interdisciplinary nature;
- systematization, consolidation, expansion of theoretical knowledge and practical skills in the direction of training, their use in solving professional problems;
- developing the skills of independent scientific work and mastering the methodology for constructing experimental studies;
- preparation of students for research work in the conditions of real professional activity;

- consolidation of the formation of general cultural, general professional and professional competencies of the student;
- identification of the degree of preparedness of the student for independent research work.

The final qualification work of the master is carried out by students under the guidance of a professor or associate professor of the graduating department of environmental monitoring and forecasting of the environmental faculty of RUDN University.

Work on a master's thesis is carried out in the following stages:

1. Determination of the topic of the master's thesis.
2. Approval of the topic and the head of the master's thesis at a meeting of the department
3. Drawing up a task and a calendar schedule for the implementation of a master's thesis, indicating the specific timing of its phased implementation.
4. Preparation of materials on the substantiation of the research topic, setting goals and objectives, determining research methods and the structure of the dissertation, the report of the undergraduate at the meeting of the department, coordination and approval of the WRC topic
5. The study of theoretical material, regulatory documentation, statistical data on the chosen topic, the rationale for the planned research methods.
6. Conducting scientific and design and production research on the chosen topic. Based on the results of the research, a report on the implementation of research is filled out and an appropriate assessment is made by the head in the statement and in the student's record book.
7. Passing a mandatory undergraduate practice in order to complete the final qualification work. The task for undergraduate practice is issued by the head of the master's thesis.
8. Based on the results of scientific and design and production research and pre-graduation practice, pre-defense is carried out in the form of a report at a meeting of the department. According to the results of the discussion, the work is recommended (or not recommended) by the department for protection at the State Attestation Commission.
9. Registration of the work in accordance with the requirements of the Federal State Educational Standard.
10. Presentation of the work in the format of a master's thesis to the supervisor for final verification and feedback.

11. Checking the work for the subject and volume of borrowings in the RUDN University Anti-Plagiarism system, obtaining a certificate.
12. Translation of the report and presentation into a foreign language under the guidance of the curator of the Department of Foreign Languages.
13. Obtaining a review of a master's thesis.
14. Obtaining admission to the defense at the graduating department.
15. Placement by students of the electronic version of the master's thesis in pdf format in the RUDN electronic library system.
16. Transfer of the completed work with the review of the supervisor, review and certificate of the RUDN Anti-plagiarism system on the amount of borrowings to the state examination commission.
17. Master's thesis defense at an open meeting of the State Examination Commission (SAC).

All master's theses, regardless of the program and form of study, are subject to mandatory verification in the RUDN Antiplagiat system. The share of the author's text (originality) as a result of an automated check by the RUDN University Anti-plagiarism system in the master's thesis must be at least 70%.

The results of the automatic analysis of the master's thesis in the form of a certificate of the degree of originality, generated in the PFUR Antiplagiarism system, are subject to analysis by the supervisor and are reflected by him in the conclusion on the degree of originality of the final qualification work. The review of the advisor of the work reflects the well-founded opinion of the head of the quality of the work.

The text of the master's thesis, with the exception of the text containing information constituting state and commercial secrets, is placed in the RUDN electronic library system.

The master's thesis is subject to review in accordance with the Rules for the preparation and execution of the final work of a graduate of RUDN University (approved by the Order of the Rector No. 878 of November 30, 2016. For review, the master's thesis is sent to one or more reviewers from among persons who are not employees of RUDN University or the organization in which the work was performed. The reviewer analyzes the master's thesis and submits a written review.

### **3.2 The structure of the Master's thesis**

The requirements for the structure, volume, content, design of a master's thesis and abstract are the same for the direction of preparation of the field **44.04.02 “Psychological and pedagogical education”**, regardless of the training program and are reflected in the

Rules for the preparation and execution of the RUDN University graduate's dissertation (approved by Order of the Rector No. 878 dated 11/30/2016).

### **3.3 Requirements to the content of the master's thesis**

The final qualification work of the master must fully comply with the approved topic. According to the structure, the content of the master's thesis must meet the following requirements.

#### **Title page**

The title page is the first page of the Master's thesis and is filled in according to the form given in the Rules for the preparation and execution of the work of a graduate of RUDN University (Appendix 2), endorsed by the supervisor of the work, consultants in sections, signed by the head of the graduating department.

#### **Content**

The content should include the titles of all sections, subsections of the work, indicating the page at the beginning of each part. The title of sections and subsections in the content must strictly correspond to their title in the text of the work. The content is given at the beginning, which makes it possible to immediately see the structure of the work.

#### **Introduction**

The introduction of the work should contain an assessment of the current state of the problem being solved and its relevance, the rationale for the need to carry out the work, the formulation of the purpose and objectives of the study, a description of the scientific novelty and practical significance of the work, the main provisions submitted for defense, the results of approbation of the work, the structure of the work.

**Relevance of the topic.** The degree of development, the need for research for the development of the relevant branch of science or production or region is indicated.

**Purpose and objectives of the study.** The purpose of the work and the tasks that need to be solved to achieve the goal are formulated. The goal and objectives are a vector that sets the direction of work and the disclosure of the chosen goal by the applicant. As a rule, the purpose of the work is consonant with the title of the research topic. The number of assigned tasks usually coincides with the number of chapters in the master's thesis, the titles of the chapters should reflect the content of the task.

**Scientific novelty of the obtained results.** When presenting the novelty of the study, one should show the difference between the obtained results and the known ones, describe the degree of novelty (obtained for the first time, improved, further developed, etc.).

**Practical significance of the obtained results.** The results of the practical use of the obtained research results or recommendations for their use are given (development of practical recommendations may be one of the objectives of the study). The main provisions of the work submitted for defense. The main scientific and practical results obtained in the dissertation research are given. The undergraduate must clearly formulate the provisions submitted for defense.

**Approbation of the results of the dissertation and publication of the author.** It is indicated at which conferences, meetings, seminars, etc. the results of studies included in the work were reported; in which literary sources the results of the work were published (indicating the status of the publication (impact factor), indexing in international (Scopus, Web of Science) and domestic databases).

**Structure and scope of work.** The structure of the work, the presence of an introduction, a certain number of chapters, applications, a list of used literature from .... sources, the total number of tables and figures are indicated.

**The main content of the work** should include the required number of chapters (according to the number and content of the assigned tasks). The first chapters of the study (one or two) are a literature review, including the main conclusions made during the review, the next chapter is devoted to the description of the methods used and the objects of the study, the final chapter presents the results and their discussion. In the conclusion of the master's thesis, the main conclusions and, if necessary, practical recommendations are formulated.

### **3.4 Approximate topics of master's theses**

The topics of master's theses in the direction **44.04.02 “Psychological and pedagogical education”**, the profile "Environmental Pedagogy" are developed by the graduating department (department), taking into account the learning outcomes formed for a specific master's program.

The list of topics is approved at a meeting of the department (department), and then at a meeting of the MSTS of the faculty and is included in the program of the state final certification. Topics are brought to the attention of students 6 months before the state final certification. When choosing a topic, the student should take into account the existing experience of his professional activity, the problems and specifics of the regions of the Russian Federation or the regions of the world.

An approximate list of topics (areas of research) of master's theses according to the program is as follows:

1. Use of local history materials in the process teaching Environmental Science in high school.
2. Analysis of the current state of the problem of environmental education of students at the university in pedagogical theory and practice.
3. Environmental education of younger schoolchildren in the educational process
4. Environmental education of junior schoolchildren in an ungraded rural school. Designing the pedagogical process of environmental education for preschoolers. Methodology of environmental education.
5. Interrelation of game activity and environmental education of children.
6. Developmental impact of environmental modeling on the thinking processes of schoolchildren.
7. Development of personal qualities of children in the process of environmental education
8. Creation of environmental models as a means of developing the logical thinking of schoolchildren.
9. Didactic games as a means of environmental education.
10. Role-playing games in environmental education.
11. Use of experiments in ecological and pedagogical work.

The defense of the master's thesis is carried out in the form of an author's report, which takes up to 15 minutes.

After the completion of the report, the members of the state examination commission, with the permission of its chairman, usually ask clarifying and additional questions.

Upon completion of the defense of final qualifying works (master's theses), the state examination committee at a closed meeting gives each student an agreed assessment. The assessment is announced on the same day after the execution of the minutes of the meetings of the state examination commission in the prescribed manner.

The requirements for the submission and defense of a master's thesis for students from among persons with disabilities are determined in the Rules for the preparation and implementation of the final qualification work of a RUDN graduate (approved by order of the Rector No. 878 of November 30, 2016).

### **3.5 Criteria for evaluating the final qualification work of the master**

The quality of the completed final qualification work in the form of a graduate's master's thesis is assessed by the State Attestation Commission, as a result of the author's report to the members of the SAC.

The commission takes into account the independence of the study, the consistency of the presentation, the correctness of setting goals and objectives, the correctness of the conclusions and their compliance with the tasks set, the quality of the text and report, as well as the quality of the prepared presentation. The assessment given by the members of the State Attestation Commission also takes into account the number and nature of errors (significant or insignificant), the degree of knowledge of the material, the quality and correctness of answers to questions. According to the results of the defense of the thesis, the members of the State Examination Commission give points, while the mark is given by each member of the State Examination Commission, and the final mark is set collectively, taking into account the marks of all members of the SAC.

The maximum score for the presented report and the content of the thesis is 100 points (approved by the Decision of the MSCH and the Faculty Academic Council). See the table below for evaluation criteria.

<b>No.</b>	<b>Estimated Component</b>	<b>Score in points</b>
1	The content of the final qualifying work: novelty, relevance, availability of graphic material, compliance of conclusions and proposals with the content of the work	60
2	Registration of final qualifying work: registration of text and graphic material in accordance with GOST	10
3	The presence and quality of the presentation, reflecting the main provisions and conclusions of the final qualification work	10
4	The quality of the report, compliance with the regulations	10
5	Mastering the research material: the quality of answers to questions on the topic of the final qualification work	10
	<b>TOTAL</b>	<b>100</b>

The amount of points obtained at the defense of the final qualification work is converted into an assessment in accordance with the ECTS International Ranking System and the Regulations on the Point-Rating System (BRS) of RUDN University:

- excellent - from 96 to 100 points (A);
- very good from 86 to 95 points (B)



- good - from 69 to 85 points (C);
- satisfactory - from 51 to 68 points (D);
- unsatisfactory - less than 50 points (E).

### **3.5.1 Criteria for evaluating the content of the final qualification work**

**50-60 points** if the work is a logically completed, independent study, devoted to solving urgent problems, taking into account modern achievements in science and technology; is based on modern scientific concepts and approaches, normative documents; originality, includes elements of novelty; the paper widely presents graphic material, conclusions and proposals fully correspond to the content of the work.

**46-50 points** if the work is a completely logically completed, independent study, is devoted to solving urgent problems, modern achievements of science and technology are taken into account; is based on modern scientific concepts and approaches, normative documents; includes elements of novelty; the work presents graphic material, conclusions and proposals do not fully correspond to the content of the work.

**31-45 points** if the work is not a completely logically completed study; the work does not take into account modern achievements of science and technology; there are elements of novelty in the work; graphic material is limited or absent, conclusions and suggestions do not fully correspond or do not correspond to the content of the work.

**1-30 points** if the work is a logically incomplete study; the work does not take into account modern achievements of science and technology; there are no elements of novelty in the work; there is no graphic material, conclusions and proposals do not correspond to the content of the work and the tasks set.

**0 points** the complete absence of final qualifying work.

### **3.5.2 Criteria for assessing the completion of the final qualification works (design of text and graphic material according to GOST)**

**9-10 points** if the work is done in full accordance with the guidelines; the text is formatted neatly, there are no grammatical errors, the bibliographic list is formatted in accordance with GOST; graphic material and illustrations are of high quality; the work is bound.

**7-8 points** if the work is not done in full accordance with the guidelines; the bibliographic list is designed in accordance with GOST; the work is bound; graphics and illustrations are in color.

**5-6 points** if the work is not done in full accordance with the guidelines; the

bibliographic list is not designed in accordance with GOST; the work is bound; graphics and illustrations are in color.

**1-4 points** if the work is not done in full accordance with the guidelines; the bibliographic list is not designed in accordance with GOST; the work is not bound; graphic material and illustrations are missing or their quality does not allow obtaining the necessary information.

**0 points**- absence of a final qualifying work.

### **3.5.3 Criteria for evaluating a presentation**

**9-10 points** if all parts of the presentation are related to the purpose and subject of discussion. The results of the study are summarized in order to draw important and meaningful conclusions on the topic of the presentation. The presentation is based on key points, fully reveals the topic. Demonstrates fluency in professional terms in the disclosure of the tasks. There are no grammatical errors. There are graphic illustrations, statistics, charts, graphs, comparison examples. Thematic sequence is sustained. Readable font, correctly selected color (no more than three). Used images, video, audio.

**7-8 points** if all parts of the presentation contain important statements on the topic. The results of the study are summarized in order to draw conclusions on the topic of the presentation. The presentation is based on several key points that do not fully reveal the topic. Demonstrates the use of professional terms in the disclosure of the tasks. There are practically no grammatical errors. Graphic illustrations, statistics, charts, graphs, comparison examples are not presented in full. Thematic sequence is sustained. Readable font, correctly selected color. Used images, videos.

**5-6 points** if the main parts of the presentation contain important statements on the topic, but some fragments are not relevant to it. Some conclusions are illogical or unjustified. Presentations contain key points, but they are overly wordy or lack information. There is some difficulty in the selection of words and some inaccuracies in their use. Mistakes are made that make it difficult to understand. Thematic sequence is sustained. Readable font, correctly selected color. Used images, videos.

**1-4 points** if the presentation has a topic, but many of its parts are not related to the topic. Conclusions are missing or illogical. Key points not highlighted. Numerous errors are made that make it difficult to understand. There is no illustration material.

**0 points** - the absence of a presentation.

### **3.5.4 Report evaluation criteria**

**9-10 points** if the report makes a good impression, accompanied by illustrative material in which the author was well versed, argues his point of view, shows the possession of a special apparatus, the conclusions fully characterize the work

**7-8 points** if the report is clearly built, the demonstration material used in the report is well designed, but there are inaccuracies, the conclusions are poorly argued and do not clearly characterize the work, uses general scientific and special terms.

**5-6 points** if the report is told, but the essence of the work is not explained, the presented demonstration material was not used by the speaker or is designed poorly, illiterately, there is no logic in the presentation of the material, uses basic concepts and terms, conclusions are available, but not proven.

**1-4 points** if the report is read out, the essence of the work is not explained, the presented demonstration material was not used by the speaker or is designed poorly, illiterately, the author makes gross mistakes, there is no logic in presenting the material, the terminology is used incorrectly, the conclusions are not correct.

**0 points** the absence of a presentation.

### **3.5.5 Criteria for evaluating answers to questions on the topic of graduation qualifying work**

**9-10 points** if the student reasonably answers all the questions posed, the possession of a special apparatus is shown.

**7-8 points** if the student gives weakly reasoned answers to a number of questions, uses general scientific and special terms.

**5-6 points** if the student cannot clearly answer the questions, but uses basic concepts and terms

**1-4 points** if the student incorrectly answers the questions or gives an unreasoned answer, does not know the terminology, when answering uses common terms instead of special ones, but understands the meaning of the questions being asked

**0 points** a complete lack of answers to questions and with their complete misunderstanding.

The student has the right to file a written appeal with the Appeal Commission about the violation, in his opinion, of the established procedure for the defense of the final qualification work.

## **4. Educational, methodological and information support of the State Examination**

To prepare for the final state examination, students can use the RUDN educational portal, preparation materials published on the website of the Institute of Environmental Engineering: <http://web-local.rudn.ru/web-local/fak/rj/index.php?id=6&p=199>, as well as materials presented in the electronic system TUIS of RUDN University: <http://esystem.pfur.ru/>

**Developer:**

Associate Professor of the Department of Foreign Languages



Y.L.Zakirova

**signature**

**Head of the Higher Education program**

Associate Professor of the Department of Foreign Languages



Y.L.Zakirova

**Educational department**

**signature**

**initials>surname**

The program was drawn up in accordance with the requirements of the Federal State Educational Standard of the higher education, taking into account the recommendations and the educational program of higher education in the field **44.04.02 Psychological and pedagogical education.**

The program was approved at a meeting of the Academic Council of the Institute of Environmental Engineering.