### **Institute of Environmental Engineering**

educational division (faculty/institute/academy) as higher education programme developer

## FINAL STATE EXAMINATION SYLLABUS

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

44.04.02 "Psychological and Pedagogical Education"

field of studies / speciality code and title

The final state examination is implemented within the professional education program of higher education:

**Environmental Pedagogy** 

(Master's programme)

higher education programme profile/specialisation title

### 1. FINAL STATE EXAMINATION GOAL AND TASKS

**The goal** of the final state examination within the framework of the higher education programme implementation is to check the conformity of the students' training outcomes as the programme results with the relevant requirements of the Federal State Educational Standard of the Higher Education or the RUDN University Educational Standards.

The tasks of the final state examination include the following:

- checking the quality of teaching a person basic humanitarian knowledge, natural science laws and phenomena necessary for professional activities of a graduate;

- identifying the level of theoretical and practical readiness of a graduate to perform professional tasks in compliance

with the qualification obtained;

- establishing the degree of a person's desire for self-development, improving his or her qualifications and skills;

- exploring the formation of a graduate's sustainable motivation for professional activities in compliance with the types of tasks of professional activities provided for by the Federal State Educational Standard of the Higher Education or the RUDN University Educational Standards;

- assessing the level of graduates' ability to find organizational and managerial solutions in non-standard situations and evaluating graduates' readiness to bear responsibility for them;

- ensuring the integration of education and scientific and technical activities, increasing the efficiency of scientific and technological achievements use, reforming the scientific sphere and stimulating innovation;

- ensuring the quality of specialists' training in compliance with the requirements of the Federal State Educational Standards of the Higher Education or the RUDN University Educational Standards.

## 2. REQUIREMENTS FOR HIGHER EDUCATION PROGRAMME COMPLETION AND LEARNING OUTCOMES

A student who does not have failed tests or exams and who has fully completed the curriculum or the individual curriculum of the higher education programme is allowed to the final state examination.

On the higher education programme completion the graduate is expected to master the following **generic competences** (GC):

Code and descriptor of the generic competences		
GC-1. Able to carry out a critical	GC-1.1. Knows ways to solve problematic problems	
analysis of problem situations based	and identify their components and relationships	
on a systematic approach, to develop	between them.	
an action strategy.	GC-1.2. Able to search for solutions to a	
	problematic task based on available and reliable	
	sources of information.	
	GC-1.3. Owns a strategy for solving a problem	
	situation based on a systematic and interdisciplinary	
	approach.	
GC-2. Able to manage a project at all	GC-2.1 Formulates on the basis of the problem	
stages of its life cycle.	posed a project task and a way to solve it through	
	the implementation of project management.	
	GC-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.	
	GC-2.3 Plans the necessary resources, including	
	taking into account their replaceability.	
	GC-2.4 Plans the necessary resources, including	
	taking into account their replaceability.	
GC-3. Able to organize and manage	GC-3.1 Has the skills to monitor the implementation	
the work of the team, developing a	of requirements.	
team strategy to achieve the goal.	GC-3.2 Able to develop a team work plan.	
GC-4. Able to apply modern	GC-4.1 Knows the lexical, grammatical, stylistic,	
communication technologies,	socio-cultural features of the scientific style, the	
including in a foreign language(s) for	academic sub-style of the scientific style of natural	
academic and professional interaction.	science disciplines in Russian and the foreign	
	language being studied.	
	GC-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. GC-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. GC-4.4 Presents the results of research and project activities at various public events, participates in academic and professional discussions in Russian (foreign) language.	
<b>GC-5.</b> Able to analyze and take into account the diversity of cultures in the process of intercultural interaction.	GC-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.	
	GC-5.2 Has the skills to create a non-discriminatory environment for interaction in the performance of professional tasks.	
<b>GC-6.</b> Able to identify and implement the priorities of their own activities and ways to improve it based on self-esteem.	<ul><li>GC-6.1 Able to analyze large amounts of information of professional content.</li><li>GC-6.2 Able to analyze, synthesize and optimize solutions to the tasks.</li></ul>	
<b>GC-7</b> . Able to search for the necessary sources of information and data, perceive, analyze, memorize and transmit information using digital	<ul><li>GC-7.1 Apply the methods of statistics in scientific and practical research; computer means of data processing and problem solving.</li><li>GC-7.2 Formulates the problem of processing real</li></ul>	

means, as well as using algorithms	data in terms of a real problem.
when working with data received	GC-7.3 Knows the principles and techniques of
from various sources in order to	modern corporate information culture and the basics
effectively use the information	of the digital economy
received to solve problems; evaluate	
information, its reliability, build	
logical conclusions based on	
incoming information and data.	

# - general professional competences (GPC):

Code and descriptor o	f the general professional competences	
GPC-1. Able to carry out and	GPC-1.1 Knows the priority directions for the	
optimize professional activities in	development of the educational system, laws and other	
accordance with regulatory legal acts	legal acts regulating educational activities.	
in the field of education and	GPC-1.2 Able to carry out professional activities in	
professional ethics.	accordance with the regulatory legal acts in the field of	
	education and the norms of professional ethics.	
	GPC-1.3 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	
	in accordance with the requirements of federal state	
	educational standards for preschool, elementary general,	
	basic general, secondary general education.	
GPC-2. Able to design basic and	GPC-2.1 Knows the principles, methods and	
additional educational programs and	approaches to the design of basic and additional	
develop scientific and methodological	educational programs, the main approaches to the	
support for their implementation.	development of scientific and methodological support	
	for the implementation of programs.	
	GPC-2.2 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.	
	GPC-2.3 Able to develop the target, content and	
	organizational sections of the main and additional	
	educational programs taking into account the planned	
	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.	
GPC-3. Able to design the	GPC-3.1 Knows modern methods and technologies for	
organization of joint and individual	organizing educational activities, the principles and	
educational and educational activities	content of the theory of pedagogical design; general	
of students, including those with	patterns of child development, modern pedagogical	
special educational needs.	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.	
	GPC-3.2 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,	
	culturinar asks (culturinar, culturinar, practical,	

	- the strength and a second and a second strength size a flatting (in
	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
	GPC-3.3 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,
	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.
<b>GPC-4.</b> Able to create and implement	GPC-4.1 Knows the principles, theories, methods of
the conditions and principles of	spiritual and moral education, methods and forms of
spiritual and moral education of	organizing the education of students on the basis of
students on the basis of basic national	basic national values.
values.	GPC-4.2 Knows how to apply elements of educational
	methods, forms and means of students based on basic
	national values.
	GPC-4.3 Owns ways to create conditions for the
	spiritual and moral education of students on the basis of
	basic national values.
<b>GPC-5.</b> Able to develop programs for	GPC-5.1 Knows the ways and methods of organizing
monitoring the results of students'	monitoring studies, the typology of monitoring,
education, develop and implement	methodological monitoring tools; the technology of
programs to overcome learning	diagnosing educational results, the principles of
programs to overcome rearining	augusting educational results, the principles of

difficulties.	diagnosing, understands the mechanisms for identifying
	individual characteristics, prospects for the development
	of the student's personality, ways to overcome learning
	difficulties.
	GPC-5.2 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
	diagnostic tools, analyze the results of a diagnostic
	study, organize pedagogical interaction with specialists
	in the field of education (psychologist, social
	pedagogue, etc.).
	GPC-5.3 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.
GPC-6 Able to design and use	GPC-6.1 Knows the general and specific features of the
effective psychological and	psychophysical development of students with special
pedagogical, including inclusive,	educational needs; psychological and pedagogical
technologies in professional activities,	foundations of educational activity; design principles
necessary for the individualization of	and features of the use of psychological and pedagogical
education, development, education of	(including inclusive) technologies in professional
students with special educational	activities, taking into account the personal and age

needs.	characteristics of students, including those with special	
	educational needs.	
	GPC-6.2 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,	
	including those with special educational needs.	
	GPC-6.3 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.	
GPC-7 Able to plan and organize the	GPC-7.1 Knows the features of building interaction	
interaction of participants in	with various participants in educational relations, taking	
educational relations.	into account the peculiarities of educational	
	environment of the institution mechanisms and	
	technologies of interaction between participants in	
	educational relations.	
	GPC-7.2 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.	
	GPC-7.3 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.	
<b>GPC-8</b> Able to arrange pedagogical	<b>GPC-8.1</b> Knows the modern methodology of	
activities based on special scientific	pedagogical design, the state and development trends of	
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.	
	GPC-8.2 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.	
	Implementation of pedagogical activities.	
	GPC-8.3 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.	

Code and descriptor of the professional competences		
In methodical activity:		
PC-1Able to carry out research	PC-1.1Able to carry out research	<b>01.001</b> Teacher
support and educational and	support for the implementation of	(pedagogical activity
methodological support for the	basic and additional, including	in the field of
implementation of basic and	professional programs.	preschool, primary
additional, including	PC-1.2Able to provide	general, basic general,
professional programs.	educational and methodological	secondary general
	support for the implementation of	education) (educator,
	basic and additional, including	teacher)
	professional programs.	
In pedagog	ical activity:	
PC-2Able to design and	PC-2.1Able to design the	<b>01.001</b> Teacher
implement the educational	educational process in the natural	(pedagogical activity
process in the natural sciences	sciences according to the	in the field of
under the programs of basic	programs of basic general,	preschool, primary
general, secondary general	secondary general education and	general, basic general,
education and additional,	additional, including vocational	secondary general
including vocational education.	education.	education) (educator,
	PC-2.2Able to implement the	teacher)
	educational process in the natural	
	sciences under the programs of	
	basic general, secondary general	
	education and additional,	
	including vocational education.	

## 3. FINAL STATE EXAMINATION PROCEDURE

The final state examination can be conducted both in in-person format (students and the state examination committee are at RUDN University during the examination), and through the use of distance learning technologies (DLT) available in the RUDN Electronic Information and Educational Environment.

The procedure for in-person or DLT-facilitated final state examination is regulated by the relevant local normative act of the RUDN University.

The final state examination within the framework of the higher education programme includes:

- state exam

- defence of the graduation qualifying paper (degree thesis).

#### 4. STATE EXAM PROCEDURE

The total workload of the State Exam is <u>3 credits</u>.

The state exam is held in one or more disciplines and (modules) of the higher education programme, whose mastery bears a decisive importance for graduates' occupational performance.

The state exam is held in two stages:

The first stage includes the assessment of the level of a graduate's theoretical training in the form of computer testing through the tools available in the RUDN Electronic Information and Educational Environment (EIEE).

The second stage focuses on the assessment of the graduate's practical preparation for future occupational activities in the form of solving work-related situational problems (cases).

In order to prepare students for taking the state exam, the head of the educational programme (no later than one calendar month before the start of the final state examination) shall familiarise the graduate students with the final state examination syllabus, the comprehensive list of theoretical issues included in the state exam, examples of work-related (occupational) situational tasks (cases) that the students will have to solve in the process of taking the state exam, as well as with the procedure for each stage of the state exam and the grading system for evaluating its results (with assessment materials).

Before the state exam, students are offered consultations on issues and tasks included in the state exam (mandatory pre-exam consultation).

The state exam results evaluation is carried out in accordance with the methodology set forth in the assessment toolkit that is specified in the Appendix to this syllabus.

# 5. REQUIREMENTS FOR GRADUATION QUALIFYING PAPER (DEGREE THESIS) AND PROCEDURE FOR ITS DEFENCE

The degree thesis is a graduation qualifying paper that the student (several students in a team) prepare to demonstrate his/her/their level of competence and work readiness.

The list of degree theses themes offered to students for further work is approved by the order of the head of the educational division (faculty/institute/academy) that runs the higher education programme, the respective information is delivered to the students by the programme head no later than six months before the date of the final state examination start.

The students are allowed to suggest their own themes for the theses, under the set procedure.

The student who has passed the state exam is admitted to defend the graduation degree thesis.

The student (students) is/are allowed to defend his/ her/their thesis only if this fully completed degree paper is signed by the respective graduate (s), the supervisor, the consultant (if any), the heads of the educational department and educational division; the thesis is also subject to the external review procedure (mandatory for master's and specialist's programmes) and the plagiarism check (in the "Antiplagiarism" system). The review of the graduation qualifying paper supervisor shall be attached as well, with a specific emphasis laid on the graduate's activities in the course of the degree thesis drafting.

No later than 14 days before the date of the thesis defence, a rehearsal of the procedure is held at the presence of the degree thesis supervisor and other academic staff of the educational department, in order to timely identify and eliminate shortcomings in the structure, content and design of the degree thesis.

The degree theses are introduced to the State Examination Board members at the public defence procedure. It includes the students' oral reports with mandatory multimedia (graphic) presentations that introduce the thesis main content.

At the end of the reports, the students reply orally to the State Examination Board members' questions regarding the subject, structure, content of the paper and the profile/ specialisation of the higher education programme. The reports and / or answers to the Board members' questions may be delivered in a foreign language.

The stages of the graduation qualifying paper preparation, the requirements for its structure, volume, contents and design, as well as the list of mandatory and recommended documents submitted for defence are specified in the relevant guidelines.

The evaluation of the degree thesis defense results is carried out in accordance with the methodology set forth in the assessment toolkit that is specified in the Appendix to the syllabus.

# 6. REQUIREMENTS FOR EQUIPMENT AND TECHNOLOGY SUPPORT FOR FINAL STAE EXAMINATION

The infrastructure and technical support necessary for the examination implementation include: classrooms equipped with computers, specialsed software.

### 7. RESOURCES RECOMMENDED FOR FINAL 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, as well as materials presented in the electronic system TUIS of RUDN University: <u>http://esystem.pfur.ru/</u>

### Internet sources

1. Electronic libraries (EL) of RUDN University and other institutions, to which university students have access on the basis of concluded agreements:

- RUDN Electronic Library System (RUDN ELS) http://lib.rudn.ru/MegaPro/Web
- EL "University Library Online" http://www.biblioclub.ru
- EL "Yurayt" http://www.biblio-online.ru
- EL "Student Consultant" www.studentlibrary.ru
- EL "Lan" http://e.lanbook.com/

## 2. Databases and search engines:

- electronic foundation of legal and normative-technical documentation http://docs.cntd.ru/
- Yandex search engine https://www.yandex.ru/
- Google search engine https://www.google.ru/

# 8. ASSESSMENT TOOLKIT AND GRADING SYSTEM\* FOR EVALUATION OF GRADUATES' COMPETENCES LEVEL

The assessment materials and the grading system\* to evaluate the graduate's level of competences (competences in part) formation as the results of the higher education programme completion are specified in the Appendix to this syllabus.

\* The assessment materials and the grading system are formed on the basis of the requirements of the relevant local normative act of RUDN University (regulations / order).

### HEAD OF HIGHER EDUCATION PROGRAMME:

Associate Professor of the Department of Foreign Languages



Zakirova Y.L.

# ASSESSMENT TOOLKIT

for

## FINAL STATE EXAMINATION

course title

44.04.02 Psychological and Pedagogical Education

field of studies / speciality code and title

\_\_\_Environmental Pedagogy\_\_\_\_\_

higher education programme profile/specialisation title

\_Master\_\_\_\_\_

graduate's qualification (degree)

## 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.

### 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.

# 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

# Procedure for the preparation and defense of the final qualification work in the format of a master's thesis

### 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 pregraduation 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.

#### 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).

### 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.

#### 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
- 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).

### 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.

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

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).

### 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**e 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.

# 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**e 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.

### 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.

### **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.

### 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.

# Head of the Higher Education program

Associate Professor of the Department of Foreign Languages

Y.L.Zakirova

### **Educational department**

signature

initials>surname