

**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

**RESEARCH METHODS OF ENVIRONMENTAL PEDAGOGY AND  
PSYCHOLOGY**

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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)

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Chairperson of the Didactic  
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**Moscow, 2022**

## 1. Course Goals and Objectives:

**The goal of the course:** is the formation of theoretical and methodological competence and willingness to conduct pedagogical and psychological research, the ability to understand the relationship of science and practice in the field of Environmental Pedagogy.

### Objectives:

- the development of theoretical knowledge, allowing to highlight the problems of modern pedagogy, psychology and educational practice, analyze and explain methodological problems of science;
- the formation of students' competencies in the field of methodology of pedagogical and psychological research;
- mastering the methods of analyzing the results of scientific research and applying them when solving specific educational and research problems;
- formation of readiness to independently carry out scientific research using modern methods of science;
- formation of the student's ability to independently master new research methods, to change the scientific profile of their professional activities;
- development of reflective abilities of students;
- evaluate the relevance of scientific research;
- use the conceptual and terminological apparatus of the discipline under study and the language of science;
- to use various scientific sources that develop methodological competence and research culture;
- make a conscious choice of logic and research methods in the field of Environmental Pedagogy.

## 2. Course in Higher Education Programme Structure:

The course «**Research Methods of Environmental Pedagogy and Psychology**» refers to an obligatory part of block 1 of the curriculum.

Table No. 1 shows the previous and subsequent disciplines aimed at the formation of the competencies of the corresponding course in accordance with the competence matrix of EP HE.

**Table 1. Previous and subsequent courses aimed at building competencies**

| Nr.   | Competence code and title  | Previous courses  | Subsequent courses |
|---|--|---|--------------------|
| General competencies  |  |   | -                  |
| 1   | GC-5 Able to develop programs for monitoring the results of students' education, develop and implement programs to overcome learning difficulties.                   | Environmental Education<br>Concept of Environmental Pedagogy<br>Research Work | Teaching Practice  |
| Specialized professional competencies (type of professional activity – research, control and expert, organizational and management) |  |   |                    |
| 3   | SPC-1 Able to carry out research support and educational and methodological support for the implementation of basic and additional, including professional programs. | Environmental Education<br>Concept of Environmental Pedagogy<br>Research Work | Teaching Practice  |

### 3. Requirements to Learning Outcomes:

The process of studying the course is aimed at the formation of the following competencies according to the educational standard:

**General competence – 5.** Able to develop programs for monitoring the results of students' education, develop and implement programs to overcome learning difficulties.

**Specialized professional competence – 1.** Able to carry out research support and educational and methodological support for the implementation of basic and additional, including professional programs.

As a result of studying the course, the student must:

**Know:**

- theoretical-methodological, methodical and organizational aspects of implementation of research activities in the field of Environmental Pedagogy;
- methods of critical analysis and evaluation of modern scientific achievements as well as methods for generating new ideas when solving research problems in the field of Environmental Pedagogy.

**Be able to:**

- analyze alternative options for solving research problems in the field of Environmental Pedagogy and evaluate potential gains/losses of implementing these options;
- when solving research problems to generate new ideas that can be operationalized based on available resources and constraints.

**Possess:**

- skills of analyzing methodological problems that arise when solving research tasks in the field of Environmental Pedagogy;
- skills of critical analysis and evaluation of modern scientific achievements and results of activities to solve research problems in the field of Environmental Pedagogy as well as in interdisciplinary areas.

### 4. Course Workload and Academic Activities

The course workload of «**Research Methods of Environmental Pedagogy and Psychology**» is 3 credits.

Table 4.1. Types of academic activities during the period of the HE programme mastering

| Types of academic activities                        | Total hours               | Semesters |   |   |     |   |
|---|---------------------------|-----------|---|---|-----|---|
|   |                           | 1         | 2 | 3 | 4   | 5 |
| <b>Contact academic hours</b>                       |                           |           |   |   |     |   |
| <b>Including:</b>                                   |                           |           |   |   |     |   |
| <i>Lectures</i>                                     |                           |           |   |   |     |   |
| <i>Seminars (workshops/tutorials)</i>               | 10                        |           |   |   | 10  |   |
| <i>Lab works</i>                                    | -                         |           |   |   |     |   |
| <i>Self-study</i>                                   | 92                        |           |   |   | 92  |   |
| Evaluation and assessment (exam; pass/fail grading) | 6<br>pass/fail<br>grading |           |   |   | 6   |   |
| Total course workload                               | hours                     | 108       |   |   | 108 |   |
|   | credits                   | 3         |   |   | 3   |   |

### 5. Course content

Table 5.1 Course modules and contents

| course modules                                | contents  |
|---|---|
| 1. Research Methods of Environmental Pedagogy | Functions of methodological knowledge. Modern pedagogical concepts, scientific approaches to the study of problems of |

|   |   |
|---|---|
|   | environmental education. Methodological foundations of pedagogical scientific research. Theoretical research methods. Empirical research methods. Methodology for the organization of the experiment. Organization of ascertaining, forming and control experiment. Approbation of the research results. Implementation of research results into practice   |
| 2. Research Methods of Environmental Psychology | Theoretical and empirical knowledge in psychology. Methodology of experimental psychological research. Classification of research methods in psychology. Theory of psychological experiment. Design of the experiment and control of variables. Quasi-experiments. Systematization and specifics of experimental research in various fields of psychology. Correlation approach in testing psychological hypotheses. Measurement in psychology. Analysis and presentation of the results of psychological research. |

## 6. Classroom equipment and technology support requirements

Table 6.1 Classroom equipment and technology support requirements

| Classroom for Academic Activity Type | Classroom equipment  | Specialized educational/laboratory equipment and materials for mastering the module |
|--------------------------------------|--|---|
| Lecture hall (room)                  |  |   |
| Laboratory                           |  |   |
| Seminar room                         | Classroom, equipped with a set of specialized furniture; a whiteboard; a personal computer with a standard package of office programmes; a set of devices includes portable multimedia projector, laptop, projection screen, Stable wireless Internet connection. Software: Microsoft Windows, MS Office / Office 365, MS Teams, Chrome (latest stable release), Skype |   |
| Computer lab                         |  |   |
| For students' self-study             |  |   |

## 7. Recommended sources for course studies

### Main reading

1. Bagdasaryan, N.G. History, philosophy and methodology of science and technology: textbook for masters / N.G. Bagdasaryan, V.G. Gorokhov, A.P. Nazareth; under total ed. N.G. Bagdasaryan. - M.: Yurayt, 2015. - 383 p.
2. Kolesnikova, G. I. Methodology of psychological and pedagogical research: textbook / G.I. Kolesnikov. - Rostov: Phoenix, 2015. - 318 p.
3. Pavlov, A.V. Logic and Methodology of Science: Modern Humanitarian Knowledge and its prospects [Electronic resource]: textbook / A.V. Pavlov. - M.: FLINTA, 2016. - 343 p. - EBS Lan. - Access mode: <https://e.lanbook.com/book/84190>.

4. Popkov, V.A. Pedagogy in the mirror of the research pedagogical search [Electronic resource]: textbook / V.A. Popkov, A.V. Korzhuev. - M.: Laboratory of Knowledge, 2017. - 217 p. - EBS Lan. - Access mode: <https://e.lanbook.com/book/103036>.

### **Additional reading**

1. Borytko, N.M. Methodology and methods of psychological and pedagogical research: textbook / N.M. Borytko, A.V. Molozhavenko, I.A. Solovtsov. - 2nd ed. - M.: Academy, 2009. - 320 p.
2. Vershlovsky, S.G. Methods of observation in pedagogical research: textbook / S.G. Vershlovsky. - SPb.: SPb APPO, 2011. - 58 p.
3. Zagvyazinsky, V. I. Methodology and methods of psychological and pedagogical research: textbook / V. I. Zagvyazinsky, R. Atakhanov. - 7th ed. - M.: Academy, 2012. - 207 p.
4. Korzhuev, A.V. General scientific foundations of pedagogy and pedagogical search / A.V. Korzhuev, A.R. Sadykov. - M.: LIBROKOM, 2010. - 300 p.
5. Korzhuev, A.V. Pedagogy in the mirror of research search. At the crossroads opinions / A.V. Korzhuev, A. S. Sokolova. - M.: LENAND, 2014. - 202 p.
6. Kraevsky, V.V. Methodology of pedagogy: a new stage: textbook / V.V. Kraevsky, E.V. Berezhnova. - M.: Academy, 2006. - 394 p.
7. Matyushkina, M.D. Methods of pedagogical research: textbook / M.D. Matyushkin. - St. Petersburg: SPb APPO, 2012. - 143 p.
8. Methodology and methodology of pedagogical research: materials of the V Interregional scientific-practical. conf. of graduate students and applicants, 9-10 Feb. 1999 / E.E. Smirnova [and others]; scientific ed. I.A. Kolesnikov. - St. Petersburg: St. Petersburg GUPM, 2000. - 190 p.
9. Novikov, A.M. Methodology of scientific research / A.M. Novikov, D.A. Novikov. - M.: LIBROKOM, 2010. - 275 p.
10. Training of a teacher-researcher in university education [Electronic resource]: monograph / V.I. Zagvyazinsky [and others]. - Tyumen, 2017. - 164 p. Access mode: <https://e.lanbook.com/book/110066>.
11. Priority directions for the development of pedagogical and psychological research. - M.: MPSI; Voronezh: MODEK, 2004. - 71 p.

### **Internet-based sources**

Electronic libraries with access for RUDN students

Russian education: federal portal: <http://www.edu.ru/>.

Library of the federal portal Russian education: [http://www.edu.ru/index.php?page\\_id=242](http://www.edu.ru/index.php?page_id=242).

Pavlov A.V. Logic and Methodology of Science: Modern Humanitarian Knowledge and its prospects / A.V. Pavlov. - M.: Flinta: Nauka, 2010. - 344 p.: <http://znanium.com/bookread.php?book=241695>.

Ruzavin G.I. Methodology of scientific knowledge / G.I.Ruzavin. - M.: UNITY-DANA, 2012. - 287 p.: <http://znanium.com/bookread.php?book=392013>.

3. Valeev G.Kh. Methodology and methods of psychological and pedagogical research: Textbook for students of 3-5 courses of pedagogical universities in the specialty "031000 - Pedagogy and psychology". - Sterlitamak: Sterlitamak. state ped. in-t, 2002. - 134 p.: <http://window.edu.ru/library/pdf2txt/445/56445/27208>.

### **8. Mid-Term Assessment and Evaluation Toolkit**

Evaluation materials for students' intermediate certification in the course of «Research Methods of Environmental Pedagogy and Psychology» are presented in Appendix 1 to this work programme.

\*Assessment materials for the course are developed and executed in accordance with the requirements of the Regulations for the assessment and evaluation funds, approved by order of the rector dated 05.05.2016 No. 420, and include a list of competencies indicating the stages of their formation; description of indicators and criteria for assessing competencies at various stages of their

formation, description of assessment scales; standard control tasks or other materials necessary to assess knowledge, skills and (or) experience of activity that characterize the stages of formation of competencies in the process of mastering the educational course; didactic materials that define the procedures for assessing knowledge, skills and (or) experience of activity that characterize the stages of competency formation).

# **Assessment and Evaluation Fund**

**ON THE COURSE**

**RESEARCH METHODS OF  
ENVIRONMENTAL PEDAGOGY AND PSYCHOLOGY**

Direction 44.04.02 Psychological and pedagogical education

Programme:

*Environmental Pedagogy*

Qualification of the graduate – *Master*

## Assessment and evaluation fund passport

Direction 44.04.02 “Psychological and pedagogical education”

Course: RESEARCH METHODS OF ENVIRONMENTAL PEDAGOGY AND PSYCHOLOGY

### 12.1. Assessment and grading system and characteristics of the assessment scale

| Controlled competence code or part | Controlled course module                        | Forms of control |              |            |                |      | Module points |
|------------------------------------|---|------------------|--------------|------------|----------------|------|---------------|
|                                    |   | Classroom work   |              |            | Self-study     | Exam |               |
|                                    |   | Test             | Control work | Class work | Seminar report |      |               |
| GC-1<br>SPC-1                      | 1. Research Methods of Environmental Pedagogy   | X                |              | 20         | 20             |      | 20            |
| GC-1<br>SPC-1                      | 2. Research Methods of Environmental Psychology | X                |              | 20         | 20             |      | 20            |
| <b>Pass/fail grading</b>           |   |                  | 10           | 40         | 40             | 10   | 100           |

**12.2 The maximum number of credits in the course is 3. At the same time, the following ratio is established between the number of points and the number of credits:**

#### Points to credits ratio

| Total points | Final assessment | Amount of credits |
|--------------|------------------|-------------------|
| 95-100       | 5                | 3                 |
| 86 – 94      | 5 (B)            | 3                 |
| 69-85        | 4 (C)            | 2                 |
| 61-68        | 3+ (D)           | 1                 |
| 51 – 60      | 3 (E)            | 1                 |
| 31 – 50      | 2 (FX)           | 0                 |
| <30          | 2 (F)            | 0                 |

**Deciphering of grades is also accepted according to the specified document:**

- **A: "Excellent"** - the theoretical content of the course has been fully mastered, the necessary practical skills for working with the material learned have been formed, all the educational tasks provided for by the training programme have been completed, the quality of their implementation was assessed by the number of points close to the maximum.

- **B: "Very good"** - the theoretical content of the course is mastered completely, the necessary practical skills of working with the acquired material are basically formed, all the educational tasks provided for by the training programme are completed, the quality of most of them is assessed by the number of points close to the maximum.



- **C: "Good"** - the theoretical content of the course has been mastered completely, some practical skills of working with the mastered material are not sufficiently formed, all the educational tasks provided for by the training programme have been completed, the performance quality of none of them has not been assessed with a minimum number of points, some types of tasks have been completed with mistakes.

- **D: "Satisfactory"** - the theoretical content of the course is partially mastered but the gaps are not significant, the necessary practical skills to work with the acquired material are basically formed, most of the educational tasks provided for in the training programme have been completed, some of the completed tasks may contain errors.

- **E: "Mediocre"** - the theoretical content of the course is partially mastered, some practical skills have not been formed, many of the educational tasks provided for by the training programme have not been completed, or the quality of some of them is assessed by the number of points close to the minimum.

- **FX: "Conditionally unsatisfactory"** - the theoretical content of the course has been partially mastered, the necessary practical skills have not been formed, most of the educational tasks provided for by the training programme have not been completed, or the quality of their implementation was assessed by the number of points close to the minimum; it is possible to improve the quality of completing educational tasks with additional independent work on the course material.

- **F: "Certainly unsatisfactory"** - the theoretical content of the course has not been mastered, the necessary practical skills are not formed, all the completed study tasks contain gross errors, additional independent work on the course material will not lead to any significant improvement in the quality of the study tasks.

### ***12.3 List of competencies and their formation stages***

| Nr.   | Competence code and title  | Previous courses  | Subsequent courses |
|---|--|---|--------------------|
| General competencies  |  |   | -                  |
| 1   | GC-5 Able to develop programs for monitoring the results of students' education, develop and implement programs to overcome learning difficulties.                   | Environmental Education<br>Concept of Environmental Pedagogy<br>Research Work | Teaching Practice  |
| Specialized professional competencies (type of professional activity – research, control and expert, organizational and management) |  |   |                    |
| 3   | SPC-1 Able to carry out research support and educational and methodological support for the implementation of basic and additional, including professional programs. | Environmental Education<br>Concept of Environmental Pedagogy<br>Research Work | Teaching Practice  |

**12.4. Typical control tasks or other materials necessary to assess knowledge, skills and (or) experience of activities, characterizing the formation stages of competencies in the process of mastering the educational course**

***Questions to prepare for certification***

1. Functions of methodological knowledge.
2. Modern pedagogical concepts, scientific approaches to the study of problems of environmental education.
3. Methodological foundations of pedagogical scientific research.
4. Theoretical research methods.
5. Empirical research methods.
6. Methodology for the organization of the experiment.
7. Organization of ascertaining, forming and control experiment.
8. Approbation of the research results.
9. Implementation of research results into practice.
10. Theoretical and empirical knowledge in psychology.
11. Methodology of experimental psychological research.
12. Classification of research methods in psychology.
13. Theory of psychological experiment.
14. Design of the experiment and control of variables.
15. Quasi-experiments.
16. Systematization and specifics of experimental research in various fields of psychology.
17. Correlation approach in testing psychological hypotheses.
18. Measurement in psychology.
19. Analysis and presentation of the results of psychological research.

The assessment and evaluation of knowledge, skills and abilities is carried out by using the components of the WCF presented in paragraphs 12.1-12.3, 12.4 in accordance with the sequence of acquisition of competencies indicated in table 12.2.

The programme is compiled in accordance with the requirements of the ES HE RUDN / FGOS HE.

**Developer:**

Associate Professor of the Department of Foreign Languages



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