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

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

## COURSE SYLLABUS

# ENVIRONMENTAL PHILOSOPHY

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

# 44.04.02 "Psychological and pedagogical education"

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)

AGREED: Head of the Higher Education Programme Y.L. Zakirova	Chairperson of the Didactic Council	Head of the Department			
(подпись)	(подпись)	(подпись)			
« <u> </u> »202 г.	«»202г.	« <u> </u> »202 г.			

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#### 1. Course Goals and Objectives:

The goal of the course: is to provide knowledge on formation and development of science and technology in the world and in Russia, the scientific and cognitive experience of mankind, addressed to the analysis of the laws of the functioning of nature, society, technology and man, the methodology of understanding scientific values, their technical and humanistic content, which will allow to develop ontological, epistemological and worldview orientations, a high level of general and philosophical culture.

#### **Objectives:**

- acquaintance with the history of the philosophy of science, with modern concepts in this area of philosophical knowledge;

- study of the structure of science, the development of scientific knowledge, the place and role of Environmental Science, other sciences about life and social and natural systems;

- consideration of topical philosophical, ethical and aesthetic problems of Ecology.

#### 2. Course in Higher Education Programme Structure:

The course **«Environmental Philosophy»** refers to the optional 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.

Nr.	Competence code and title	Previous courses	Subsequent courses
Univers	al competencies		
1	UC-5 Able to analyze	Environmental	Environmental Ethics
	and take into account the	Culture	
	diversity of cultures in	Social Ecology	
	the process of		
	intercultural interaction.		
	UC-6 Able to identify		
	and implement the		
	priorities of their own		
	activities and ways to		
	improve it based on self-		
	esteem.		
General	l competencies		
2	GC-4 Able to create and	Environmental	Environmental Ethics
	implement the conditions	Culture	
	and principles of spiritual	Social Ecology	
	and moral education of		
	students on the basis of		
	basic national values.		
		cies (type of profes	sional activity - research, control and expert,
organiz	ational and management)		
3	SPC-2 Able to design		Environmental Ethics
	and implement the	Culture	
	educational process in the	Social Ecology	
	natural sciences under the		
	programs of basic		
	general, secondary		

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

general education and additional, including		
vocational education.		

#### **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:

**Universal competence** – **5.** Able to analyze and take into account the diversity of cultures in the process of intercultural interaction.

Universal competence - 6. Able to identify and implement the priorities of their own activities and ways to improve it based on self-esteem.

General competence -4. Able to create and implement the conditions and principles of spiritual and moral education of students on the basis of basic national values.

Specialized professional competence -2. 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.

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

**Know:** basic patterns of development of nature, society and thinking; history of origin and stages of development of science; the value of scientific knowledge, the features of its manifestation in the modern information technology and social environment; the role of science in the development of the planetary civilizations; problems and trends in the development of environmental science.

**Be able to**: apply the conceptual and categorical apparatus, the basic laws of the humanities and social sciences in professional activities; apply methods and means of cognition for intellectual development, raising the cultural level, professional competence.

**Master**: philosophical thinking to develop a systematic, holistic view of the problems of society; skills of public and scientific speech, argumentation, discussion; ways to improve and develop one's intellectual and general cultural level.

#### 4. Course Workload and Academic Activities

The course workload of **«Environmental Philosophy**» is 4 credits.

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

Full-time

Types of academic activities		Total hours		Sen	nesters		
			1	2	3	4	5
Contact academic hours		30		30			
Including:							
Lectures		15		15			
Seminars (workshops/tutorials)		15		15			
Lab works							
Self-study		78		78			
Evaluation and assessment (exam; pass/fail		36		36			
grading)							
Total course workload	hours	144		144			
	credits	4		4			

# Part-time

Types of academic activities		Total hours		Sei	nesters		
			1	2	3	4	5
Contact academic hours							
Including:							
Lectures							
Seminars (workshops/tutorials)		12			12		
Lab works							
Self-study		126			126		
Evaluation and assessment (exam; pass/fail		6 pass/fail			6		
grading)		grading					
Total course workload	hours	144			144		
	credits	4			4		

## 5. Course content

## Table 5.1 Course modules and contents

course modules	contents
1. Philosophy of Science	Philosophy and science in the system of culture, in the history of knowledge and practice. The specifics of the philosophical problems of science. Philosophy, science and technology in the system of culture and in the history of knowledge and practice. The main directions and problems of modern philosophy of science. Types of scientific rationality. Gnoseological and methodological foundations of scientific knowledge. The structure of scientific knowledge. empirical and theoretical knowledge. Mathematization of science. The problem of truth in science. Methodology of scientific knowledge. System methods in science and technology.
2. Environmental Philosophy	Philosophical problems of ecology and other life sciences. Philosophical problems of biology: modern theory of evolution, evolutionary and forest genetics. Philosophical problems of social ecology. Ecological ethics and ethics of scientific and technical activity. Philosophical problems of forest sciences. Modern trends and prospects for global processes and possible solutions to global problems of our time. Philosophical problems of landscape architecture and gardening art. Ecological aesthetics and its role in solving environmental problems. Methodological problems of ecosystem modeling and environmental design.

# 6. Classroom equipment and technology support requirements

Iab	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)						

Table 6.1 Classroom equipment and technology support requirements

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

Kanke V.A. History, philosophy and methodology of natural sciences: textbook for masters. M.: Yurait Publishing House, 2019, 505 p.

#### Additional reading

- 1. Kobylyansky V.A. Philosophy of ecology, geoecology, bioecology. M, 2003.
- 2. Lebedev S.A. A course of lectures on the philosophy of science. M., 2014. 318 p.
- 3. Lebedev S.A. Philosophy of science. M.: Yurait Publishing House, 2015. 296 p.
- 4. Stepin V.S. History and philosophy of science. M.: Academic Project, 2017, 424 p.

#### Internet-based sources

Electronic libraries with access for RUDN students

 $Education \ and \ society \ [Electronic \ resource]: \ Scientific, \ informational-analytical \ journal \ for \ researchers \ and \ organizers \ of \ the \ education \ system. - URL: \ http://www.jeducation.ru:80 \ .$ 

Educational issues [Electronic resource]: Scientific and educational journal Higher School of Economics. – URL: http://vo.hse.ru

Pedagogy [Electronic resource]: scientific and theoretical journal. – URL: http://pedagogika-rao.ru Pedagogy [Electronic resource]: Scientific and theoretical journal of the Russian academy of education. – URL: http://pedagogika-rao.ru/.

Public education [Electronic resource]: Social and pedagogical magazine. – URL: http://elibrary.ru/title about.asp?id=7908.

## 8. Mid-Term Assessment and Evaluation Toolkit

Evaluation materials for students' intermediate certification in the course of **«Environmental Philosophy**» 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**

# ENVIRONMENTAL PHILOSOPHY

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: ENVIRONMENTAL PHILOSOPHY

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

Controll ed	Controlled course module		Forms of control				
compete nce code		Classroom work			Self- study		
or part		Test	Control work	Class work	Seminar report		
UC-5, 6 GC-4 SPC-2	1. Philosophy of Science	10		15	15		30
UC-5, 6 GC-4 SPC-2	2. Environmental Philosophy	10		15	15		30
	Pass/fail grading	20	10	30	30	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:

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		

Points to credits ratio

#### 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.

Nr.	Competence code and title	Previous courses	Subsequent courses
Univers	sal competencies		
1	UC-5 Able to analyze and take into account the diversity of cultures in the process of intercultural interaction. UC-6 Able to identify and implement the priorities of their own activities and ways to improve it based on self- esteem.		Environmental Ethics
Genera	l competencies		
2	GC-4 Able to create and implement the conditions and principles of spiritual and moral education of	Environmental Culture Social Ecology	Environmental Ethics

# 12.3 List of competencies and their formation stages

~	students on the basis of basic national values.		
-	1 1	cies (type of profes	sional activity – research, control and expert,
organiz	ational and management)		
3	<b>SPC-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.	Culture	Environmental Ethics

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. Philosophy and science in the system of culture, in the history of knowledge and practice.
- 2. The specifics of the philosophical problems of science.
- 3. Philosophy, science and technology in the system of culture and in the history of knowledge and practice.
- 4. The main directions and problems of modern philosophy of science.
- 5. Types of scientific rationality.
- 6. Gnoseological and methodological foundations of scientific knowledge.
- 7. The structure of scientific knowledge.
- 8. Empirical and theoretical knowledge.
- 9. Mathematization of science.
- 10. The problem of truth in science.
- 11. Methodology of scientific knowledge.
- 12. System methods in science.
- 13. Mechanisms and socio-cultural aspects of the development of science and technology.
- 14. Philosophical problems of ecology and other life sciences.
- 15. Philosophical problems of biology: modern theory of evolution, evolutionary and forest genetics.
- 16. Philosophical problems of social ecology.
- 17. Ecological ethics and ethics of scientific and technical activity.
- 18. Philosophical problems of forest sciences.
- 19. Modern trends and prospects for global processes and possible solutions to global problems of our time.
- 20. Philosophical problems of landscape architecture and gardening art.
- 21. Ecological aesthetics and its role in solving environmental problems.
- 22. Methodological problems of ecosystem modeling and environmental design.

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:**

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