PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA
NAMED AFTER PATRICE LUMUMBA

Institute of Environmental Engineering

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

COURSE SYLLABUS

Environmental Philosophy

course title

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 course instruction is implemented within the professional education programme of higher education:

Environmental Pedagogy

higher education programme profile/specialisation title

Moscow, 2023

1. Course Aims and Objectives

The aim 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

- to introduce students to the history of the philosophy of science, with modern concepts in this area of philosophical knowledge;
− to introduce students to 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;
− to consider topical philosophical, ethical and aesthetic problems of Ecology.

2. Course in the Higher Education Programme Structure:

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

Table 1. Previous and subsequent courses aimed at building up competences

Nr.	Competence code and title	Previous courses	Subsequent courses
General competences			
1	**GC-5** Able to analyze and take into account the diversity of cultures in the process of intercultural interaction. **GC-6** Able to identify and implement the priorities of their own activities and ways to improve it based on self-esteem.	Environmental Culture Social Ecology	Environmental Ethics
General professional competences			
2	**GPC-4** Able to create and implement the conditions and principles of spiritual and moral education of students on the basis of basic national values.	Environmental Culture Social Ecology	Environmental Ethics
Specialized professional competences			
3	**SPC-2** Able to design and implement the educational process in the natural sciences under the programs of basic general, secondary general education and	Environmental Culture Social Ecology	Environmental Ethics

	additional, including vocational education.		

3. Requirements to Learning Outcomes

The course is aimed at building up and enhancing the following competences:
General competence – 5. Able to analyze and take into account the diversity of cultures in the process of intercultural interaction.
General competence – 6. Able to identify and implement the priorities of their own activities and ways to improve it based on self-esteem.
General professional 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.

On completion of the Course the student:
Knows: 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.
Can: 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.
Masters: 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. Table 4.1. Course workload and academic activities

Types of academic activities		Total hours	Semesters				
			1	2	3	4	5
Contact academic hours							
Including:							
Lectures							
Seminars (workshops/tutorials)		12			12		
Lab works							
Self-study		96			96		
Evaluation and assessment (exam; pass/fail grading)		36 pass/fail grading			36		
Total course workload	hours	144			144		
	credits	4			4		

5. Course contents

Table 5.1 Course modules and contents

course modules	topics
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. Mechanisms and socio-cultural aspects of the development of 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

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. Resources recommended 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. Assessment toolkit and grading system* for evaluation of students' competences level upon course completion

The assessment toolkit and the grading system* to evaluate the competences formation level (competences in part) upon the course study completion are specified in the Appendix to the course syllabus. * The assessment toolkit and the grading system are formed on the basis of the requirements of the relevant local normative act of RUDN University (regulations / order).

ASSESSMENT TOOLKIT

for the course

Environmental Philosophy
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)

Passport to Assessment Toolkit for Course

Field of studies: 44.04.02 "Psychological and Pedagogical Education"

Course: ENVIRONMENTAL PHILOSOPHY

12.1. Competences under evaluation and assessment tools

Competences under assessment	Course module under assessment	Tools to assess higher education programme mastering level					Points for module
		Classwork			Self-studies	Exam	
		Test	Control work	Class work	Seminar report		
GC-5, 6 GPC-4 SPC-2	1. Philosophy of Science	10		15	15		30
GC-5, 6 GPC-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.

Assessment & Grading System

Total points	Final assessment	Number 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

12.3 Previous and subsequent courses aimed at building up competences

Nr.	Competence code and title	Previous courses	Subsequent courses
General competences			
1	**GC-5** Able to analyze and take into account the diversity of cultures in the process of	Environmental Culture Social Ecology	Environmental Ethics

	intercultural interaction. **GC-6** Able to identify and implement the priorities of their own activities and ways to improve it based on self-esteem.		
General professional competences			
2	**GPC-4** Able to create and implement the conditions and principles of spiritual and moral education of students on the basis of basic national values.	Environmental Culture Social Ecology	Environmental Ethics
Specialized professional competences			
3	**SPC-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.	Environmental Culture Social Ecology	Environmental Ethics

12.4 Exam questions

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.

Developer,
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