**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

Устойчивое развитие / Sustainable development

(наименование дисциплины/модуля)

Recommended by the Methodological Council for the Education Field:

05.04.06 Ecology and nature management

(код и наименование направления подготовки/специальности)

The discipline is mastered within the framework of the main professional higher education program:

УПРАВЛЕНИЕ ПРИРОДОПОЛЬЗОВАНИЕМ / NATURE MANAGEMENT

(наименование (профиль/специализация) ОП ВО)

2023

1. COURSE GOALS

The course goal is to develop students' understanding of the theory of sustainability and its applications in ecology, environmental sciences and practice of environmental regulation and management.

2. LEARNING OUTCOMES

The mastering of the discipline " Устойчивое развитие / Sustainable development " is aimed at the formation of the following competencies (parts of competencies) in students:

Table 2.1. List of competencies formed by students during the development of the discipline (LEARNING OUTCOMES)

Code	Competence	Indicators of competence achievement (within the framework of this discipline)
GC-5	Able to solve the problems of professional activity in the field of ecology, nature management and nature protection using information and communication, including geoinformation technologies	**GC-5.1.** knows the main categories of philosophy, the laws of historical development, the basics of intercultural communication
		GC-5.2 able to communicate in the world of cultural diversity and demonstrate mutual understanding between students from different cultures in compliance with ethical and intercultural norms
		УК-5.3. владеет практическими навыками анализа философских и исторических фактов, оценки явлений культуры; способами анализа и пересмотра своих взглядов в случае разногласий и конфликтов в межкультурной коммуникации
		GC-5.3 owns the practical skills of analyzing philosophical and historical facts, evaluating cultural phenomena; ways of analyzing and revising one's views in case of disagreements and conflicts in intercultural communication

3. COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE

The discipline "Устойчивое развитие / Sustainable development" refers to Compulsory Disciplines of the Higher Education Program.

Within the framework of the higher education program, students also master other disciplines and/or practices that contribute to expected learning outcomes of the discipline " Устойчивое развитие / Sustainable development ".

Table 3.1. List of Higher Education Program components that contribute to expected learning outcomes

Code	Competence	Previous Disciplines (Modules)	Subsequent Disciplines (Modules)
GC-5	Able to solve the problems of professional activity in the field of ecology, nature management and nature	Международное сотрудничество в области охраны окружающей среды /	Philosophical problems of natural sciences / Философские проблемы естествознания

Code	Competence	Previous Disciplines (Modules)	Subsequent Disciplines (Modules)
	protection using information and communication, including geoinformation technologies	International collaboration in invironmental protection	Базовая компонента Учебная практика / Educational practice Вариативная компонента Производственная практика / Production practice Научно-исследовательская работа / Research work НИР / Research work Преддипломная практика / Pre-graduate practice

4. COURSE WORKLOAD AND ACADEMIC ACTIVITIES

Workload of the course «Устойчивое развитие / Sustainable development» is 2 ECTS.

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

Вид учебной работы	TOTAL	Semesters			
		1	2	3	4
Contact academic hours	*34*		*34*		
Incl.:					
Lectures					
Lab work					
Seminars	34		34		
Self-study	*38*		*38*		
Evaluation and assessment					
Total workload Ac.hours	**72**		**72**		
ECTS	**2**		**2**		

5. COURSE CONTENTS
Table 5.1. The content of the discipline (module) by type of academic work

Name of the discipline section	Content of the section (topics)	Type of academic activity*
Introduction. Ecological foundations of sustainable development Introduction	The concept of sustainable development. sustainable functioning of ecosystems. Distribution of life on the planet. The role of man in the circulation of matter and energy.	Lectures, Seminars
Problems of sustainable development	Problems of sustainable development Demographic situation in the world. Environmental pollution. Problems of conservation of flora and fauna. Economic and social problems.	Lectures, Seminars
Principles of sustainable development	International cooperation. Key natural resources of the biosphere. Noosphere and sustainable	Lectures, Seminars

	development. Alternative energy sources. Environmentally friendly technologies. Environmental safety	
Sustainability strategies	Strategies of the sustainability: global, regional, local. Sustainable development goals. Indicators of sustainability	Lectures, Seminars

6. CLASSROOM EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

Table 6.1. Classroom equipment and technology support requirements

Classroom for Academic Activity Type	CLASSROOM EQUIPMENT	Specialized learning, laboratory equipment, software and materials for the mastering the course
Lecture	An auditorium for conducting lecture-type classes, equipped with a set of specialized furniture; a board (screen) and technical means of multimedia presentations.	-
Seminars	Classroom, equipped with a set of specialized furniture; whiteboard; 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	-
Self-studies	An auditorium for independent work of students (can be used for seminars and consultations), equipped with a set of specialized furniture and computers with access to an electronic information and educational environment.	-

7. RECOMMENDED SOURCES FOR COURSE STUDIES

• *Main reading:*

1. Huang C. Y. et al. Introduction to ecology. – 2018.
2. Benjaminsen T. A., Svarstad H. Political ecology: A critical engagement with global environmental issues. – Springer Nature, 2021.

Additional sources:

1. Currie D. J. Where Newton might have taken ecology //Global Ecology and Biogeography. – 2019. – T. 28. – №. 1. – C. 18-27.
2. Riisgård H. U. General Ecology. – 2018..

Internet-sources:

1. Electronic library system of the RUDN and third-party electronic library systems, to which university students have access on the basis of concluded contracts:
- electronic library system of the RUDN University http://lib.rudn.ru/MegaPro/Web
- electronic library system «Университетская библиотека онлайн» http://www.biblioclub.ru
- electronic library system Юрайт http://www.biblio-online.ru
- electronic library system «Консультант студента» www.studentlibrary.ru
- electronic library system «Лань» http://e.lanbook.com/
- electronic library system «Троицкий мост»

2. Databases and search engines:
- electronic fund of legal and regulatory and technical documentation http://docs.cntd.ru/
- Yandex search engine https://www.yandex.ru/
- Google search engine https://www.google.ru/
- abstract database SCOPUS http://www.elsevierscience.ru/products/scopus/
- ………..

*Educational and methodological materials for independent work of students during the development of the discipline/ module *:*
1. A course of lectures on the discipline "Устойчивое развитие / Sustainable development".

* - all educational and methodological materials for independent work of students are placed in accordance with the current procedure on the discipline page in the Telecommunication educational and Information System!

8. MID-TERM ASSESSMENT AND EVALUATION TOOLKIT

Evaluation materials and a point-rating system* for assessing the level of competence formation (part of competencies) based on the results of mastering the discipline "Устойчивое развитие / Sustainable development" are presented in the Appendix to this Work Program of the discipline.

* - evaluation toolkit and ranking system are formed on the basis of the requirements of the relevant local regulatory act of the RUDN (regulations / order).

DEVELOPER:

Professor of the Department of Environmental Safety and Product Quality Management		**Redina M.M.**
Position, Department	Signature	Name

HEAD OF THE DEPARTMENT:

Head of the Department of Environmental Safety and Product Quality Management		**Savenkova E.V.**

Department	Signature	Name

HAED OF THE HIGHER EDUCATION PROGRAM:
Professor of the Department of Environmental Safety and Product Quality Management

Redina M.M.

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