

**Federal State Autonomous Educational Institution of Higher Education
"Peoples' Friendship University of Russia"**

Institute of Environmental Engineering

(наименование основного учебного подразделения (ОУП)-разработчика ОП ВО)

COURSE SYLLABUS

International collaboration

(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:

Economics of natural resources management

(наименование (профиль/специализация) ОП ВО)

1. COURSE GOALS

The course is aimed on extended study of international collaboration in the field of ecology, environmental protection, nature management and sustainability.

2. LEARNING OUTCOMES

The mastering of the discipline "International collaboration" 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)
GPC -2	Able to use special and new sections of ecology, geocology and nature management in solving research and applied problems of professional activity	GPC -2.1 Knows the basics of ecology, geocology, environmental economics and circular economy, as well as environmental management
		GPC -2.2 Able to use environmental, economic and other special knowledge and algorithms to solve professional problems
		GPC -2.3 Able to find, analyze and competently use the latest information and modern techniques in the performance of research and applied tasks

3. COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE

The discipline "His International collaboration " 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 " International collaboration ".

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

Code	Competence	Previous Disciplines (Modules)	Subsequent Disciplines (Modules)
GPC -2	Able to use special and new sections of ecology, geocology and nature management in solving research and applied problems of professional activity.	Estimations of natural resources / Оценки природных ресурсов Methodology of scientific creation / Методология научного творчества	Environmental standards and nature management / Экологические стандарты и природопользование Modern remediation technologies / Современные технологии ремедиации Economic aspects of natural resources management / Экономические аспекты природопользования Management of water resources / Управление водными ресурсами

Code	Competence	Previous Disciplines (Modules)	Subsequent Disciplines (Modules)
		Научно-исследовательская работа / Research work	Environmental-economic aspects of environmental projects / Эколого-экономические аспекты экологических проектов Engineering ecology / Инженерная экология Monitoring of environmental impacts / Мониторинг экологических воздействий Industrial safety / Промышленная безопасность Simulation and prevention of accidents / Моделирование и предупреждение аварий Учебная практика / Educational practice Производственная практика / Production practice НИР / Research work Преддипломная практика / Pre-graduate practice

4. COURSE WORKLOAD AND ACADEMIC ACTIVITIES

Workload of the course « International collaboration » 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
<i>Contact academic hours</i>	27			27	
Incl.:					
Lectures	9			9	
Lab work					
Seminars	18			18	
<i>Self-study</i>	41			33	
<i>Evaluation and assessment</i>	14			12	
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	General ideas about the necessity and methods of implementing international cooperation in the	Lectures, Seminars

	<p>field of nature protection Absolute dependence of man on flora and fauna.</p> <p>The biosphere as a human habitat that has no state borders.</p> <p>The necessity and contradictory nature of international cooperation in the protection and rational use of flora and fauna.</p> <p>The main forms of international cooperation in the field of environmental protection and nature management. International cooperation in the field of wildlife protection and nature management, as a compromise of nature management. The main mechanisms of international cooperation.</p>	
Examples of the implementation of international cooperation	<p>Examples of the implementation of international cooperation in the field of nature protection on the example of the main global conventions. Rio Declaration on Environment and Development. The UN Framework Convention on Climate Change. The UN Convention on Biological Diversity.</p> <p>The Kyoto Protocol as an implementation of the UN Framework Convention on Climate Change. UNESCO, United Nations Educational, Scientific and Cultural Organization. UNESCO Program "Man and the Biosphere" (MAB). The Rome Convention.</p> <p>International trade in endangered species of wild fauna and flora as one of the main factors in reducing species diversity.</p> <p>plants and animals on planet Earth (CITES Convention).</p> <p>Berne Convention.</p>	Lectures, Seminars
International governmental environmental organizations	<p>International non-governmental environmental organizations and their role in international cooperation in the field of OS protection</p> <p>International Whaling Commission (IWC).</p> <p>International Union for Conservation of Nature (IUCN).</p> <p>World Wildlife Fund (WWF)</p>	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. Monkelbaan J. Governance for the sustainable development goals //Singapura: Spinger. – 2019.

Additional sources:

1) Allen, C., Metternicht, G., & Wiedmann, T. (2016). National pathways to the Sustainable Development Goals (SDGs): A comparative review of scenario modelling tools. *Environmental Science & Policy*, 66, 199-207.

2) van den Bergh, J. C., and Marjan W. Hofkes, eds. *Theory and implementation of economic models for sustainable development*. Vol. 15. Springer Science & Business Media, 2013.

3) Corbett, H., & Swibold, S. (2002). *Guide to sustainable development and environmental policy*. Duke University Press.

4) Jolink, A., & Niesten, E. (2015). Sustainable development and business models of entrepreneurs in the organic food industry. *Business Strategy and the Environment*, 24(6), 386-401.

5) König, J., Suwala, L., & Delargy, C. (2021). Helix models of innovation and sustainable development goals (pp. 473-487). Springer International Publishing.

6) Plumecocq, G., Debril, T., Duru, M., Magrini, M. B., Sarthou, J. P., & Therond, O. (2018). The plurality of values in sustainable agriculture models. *Ecology and Society*, 23(1).

7) Robertson, G. P. (2015). A sustainable agriculture?. *Daedalus*, 144(4), 76-89.

8) Van Soest, H. L., Van Vuuren, D. P., Hilaire, J., Minx, J. C., Harmsen, M. J., Krey, V., ... & Luderer, G. (2019). Analysing interactions among sustainable development goals with integrated assessment models. *Global Transitions*, 1, 210-225.

9) Vaquero-García, A., Álvarez-García, J., & Peris-Ortiz, M. (2017). Urban models of sustainable development from the economic perspective: Smart cities. In *Sustainable Smart Cities* (pp. 15-29). Springer, Cham.

10) Zucchella, A., & Previtali, P. (2019). Circular business models for sustainable development: A “waste is food” restorative ecosystem. *Business Strategy and the Environment*, 28(2), 274-285. URL: https://www.google.com/books?hl=ru&lr=&id=qRYsEAAAQBAJ&oi=fnd&pg=PA111&dq=book+ecology&ots=T1QuTNW1uM&sig=yd2pOCR_I167KmxmriHZQ9zCN0

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 " International collaboration ".

* - 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 " International collaboration " 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

Position, Department



Signature

Redina M.M.

Name

HEAD OF THE DEPARTMENT:

Head of the Department of
Environmental Safety and
Product Quality Management

Department



Signature

Savenkova E.V.

Name

**HAED OF THE HIGHER
EDUCATION PROGRAM:**

Professor of the Department of
Environmental Safety and
Product Quality Management

Position, Department



Signature

Redina M.M.

Name