Federal state autonomous educational institution of higher professional education
"People's Friendship University of Russia"

Faculty of ecology

Recommended by MSSN

DISCIPLINE PROGRAM

Title of the discipline Environmental Impact Assessment

Recommended for the direction of training / specialty

05.06.01 Earth Sciences

Direction of the program (profile)

Ecology: modern environmental studies

1. **Tasks and objectives:**

- ¬ formation of students' systemic ideas about the theoretical and methodological foundations of analysis and modeling of the sustainability of socio-ecological and economic systems;
- ¬ formation of ideas about the mechanisms of mutual influence of social, economic and environmental factors, approaches to their identification and regulation on the basis of anthropogenic activity;
- ¬ formation of ideas and skills for planning the development of socio-ecological and economic systems at different levels, from the enterprise to the region, in order to implement sustainable development.

To achieve this goal in the course of teaching the course, it is necessary to solve the following tasks:
• formation of ideas about the sustainability of socio-ecological and economic systems;
• analysis of existing environmental design tools and standards for various areas of environmental management;
• formation of ideas about strategic environmental assessment as a tool for environmental design for sustainable development of territories;
• formation of ideas about approaches and methods of strategic environmental assessment of territories and enterprises.

2. **Place the discipline in the structure of the Concentration program:**

The discipline "Environmental Impact Assessment" refers to the optional part of the discipline (modules) optional 3 (DV.3)

Table 1 shows the previous and subsequent disciplines aimed at the formation of discipline competencies in accordance with the competence matrix of EP HE,

Table No. 1

Prior and subsequent disciplines aimed at the formation of competencies

№ п/п	Code and name of competence	Preceding disciplines	Subsequent disciplines (groups of disciplines)
Basic competencies			
	BC-1	Methodology of scientific research	preparation of the thesis
	BC-2	History and philosophy of science	preparation of the thesis
	BC-3	Foreign language	
3			
	PC-1	Pedagogics of higher school	Teaching practice
	PC-2	Stability of natural systems	preparation of the thesis
	PC-3	Stability of natural systems	preparation of the thesis
	PC-4	Methodology of scientific research	preparation of the thesis

3. Requirements for the results of the examination of the discipline:

The process of studying the discipline is aimed at the formation of the following competencies:
BC1-3, 5 PC 1-4

Basic competencies	
Ability to the stocktaking and present-day scientific achievement evaluation, modern ideas generation in solving investigative and practical tasks, including cross-disciplinary fields	**BC-1**
Ability to project and realize complex studies, including cross-disciplinary, based on the integral systematic scientific world outlook by the aid of History and Philosophy of Science knowledge	**BC-2**

Readiness to take part in the Russian and international study personnel scientific missions resolution.	**ВС-3**
Ability to plan and solve the tasks of professional and personal enhancement	**ВС-5**
Professional competencies	
Possess a modern scientific subject area of knowledge according to the focus of the program and be able to use it for scientific, practical and pedagogical purposes	**PC-1**
To be able to diagnose issues of environmental protection, to make the impact assessment of building projects and other forms of anthropogenic activities to give recommendations on nature preserving and sustainable development maintenance.	**PC -2**
To be able to make analysis and assessment of nature influence on health and human livelihood	**PC -3**
To be able to organize and control scientific, research and manufacturing, expert and analytical work and educational work with the use of deepen knowledge ib the field of program track	**PC -4**

As a result of studying the discipline PhD student must:

Know: theoretical and methodological foundations of analysis and modeling of the sustainability of socio-ecological and economic systems; mechanisms of mutual influence of social, economic and environmental factors, approaches to their identification and regulation based on anthropogenic activities

be able to: conduct a critical analysis of the development of socio-ecological and economic systems at different levels, from the enterprise to the region, plan the development of socio-ecological and economic systems in order to ensure sustainable development.

Have skills: to analyze the development of socio-ecological and economic systems at different levels; in the application of various approaches and methods of strategic environmental assessment of territories and enterprises.

4. The volume of disciplines and types of training work

Total labor discipline is 4 credits.

Type of study	Hours	
		Semester
Class hours (total)	30	4
Including:	-	
Lections	10	10
Practical training	20	20
Laboratory works	0	0
Independent work (total)	87	87
Credit system час	144	144
зач. ед.	4	4

5. Contents

5.1. Contents sections

№ п/п	Section of the discipline	In This section
1.	Part 1. Introduction to the Environmental Impact assessment	EIA and nature management. Objects of EIA. Main instruments
2	Part 2. Legislative framework of EIA	Organization of EIA procedure. Objects of EIA. Main legislative and regulatory requirements. Application of the EIA results: legislative status
3	Part 3. Methods of EIA	Methods of EIA. Specificity of considered objects. Applicability and main restrictions of the research methods. Expert procedures and assessment quality

5.2. **Sections of disciplines and occupations**

№ п/п	Sections of disciplines and occupations	lections	PT	IW	hours
1.	Part 1. Introduction to the Environmental Impact assessment	4	8	20	32
2.	Part 2. Legislative framework of EIA	2	6	20	28
3.	Part 3. Methods of EIA	7	6	27	40
		10	20	87	144

6. Practical trainings (seminars)

№ п/п	Sections of disciplines and occupations	In This section	Hours
1.	Part 1. Introduction to the Environmental Impact assessment	EIA and nature management. Objects of EIA. Main instruments	8
2.	Part 2. Legislative framework of EIA	Organization of EIA procedure. Objects of EIA. Main legislative and regulatory requirements. Application of the EIA results: legislative status	6
3.	Part 3. Methods of EIA	Methods of EIA. Specificity of considered objects. Applicability and main restrictions of the research methods. Expert procedures and assessment quality	6

8. Material and technical support of the discipline:

An auditorium equipped with multimedia equipment and a personal computer with a standard package of office programs.

9. Information support of the discipline

database, information and search engines

www.mnr.gov.ru - site of the Ministry of Natural Resources of the Russian Federation;
http://rpn.gov.ru/ - Federal Service for Supervision of Natural Resources;
www.ecoindustry.ru - site of the journal "Production Ecology";
www.unep.org - site of the United Nations Environment Program;
www.wwf.ru - site of the World Wildlife Fund.
http://burondt.ru/ - website of the BAT Bureau - information on the introduction of standardization based on the best available technologies
http://www.mnr.gov.ru/activity/directions/zelenye_standarty/zelenye_standarty/?sphrase_id=124597 - information on the development, application and implementation of "green standards"

http://www.mnr.gov.ru/activity/directions/natsionalnyy_proekt_ekologiya/ - information on the progress of the National Project "Ecology"
https://www.openlearning.com/courses/environmental-standards-and-norms-for-the-sustainability/HomePage

software
MSWindows; MSOffice

10. The educational-methodical and informational support of the discipline:

a)main literature

1) John Glasson, Riki Therivel and Andrew Chadwick Introduction to environmental impact assessment / John Glasson, Riki Therivel and Andrew Chadwick. — 4th ed.101 p. cm. — (The natural and built environment series) Includes bibliographical references and index. 1. Environmental impact assessment—Great Britain. 2019
2) Pacifica F. Achieng Ogola ENVIRONMENTAL IMPACT ASSESSMENTGENERAL PROCEDURES Short Course II on Surface Exploration for Geothermal Resources, organized by UNU-GTP and KenGen, at Lake Naivasha, Kenya, 2-17 November, 2007.
3) Environmental Impact Assessment Training Manual International Institute for Sustainable Development Published by the International Institute for Sustainable Development, p 150, 2016
4) Jonathan Randall, Emma Jowett The Green Recovery and Reconstruction Toolkit (GRRT) World Wildlife Fund, Inc. and 2010 American National Red Cross.

b) additional literature

1. COUNCIL DIRECTIVE of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment (85/337/EEC) https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31985L0337:EN:HTML
2. DIRECTIVE 2001/42/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 June 2001 on the assessment of the effects of certain plans and programs on the environment https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32001L0042&from=EN
3. Policy, plan, and program environmental assessment in England, the Netherlands, and Germany: Practice and prospects // Article in Environment and Planning B Planning and Design March 2002 5. http://eco-expertise.org/obshhestvennaya-ekologicheskaya-eksperti/strategicheskoj-ekologicheskoj-otsenki/
4.https://youtu.be/KTHKqx-C_C8 - SEA video

c) Internet resources

1) https://www.bmu.de/en/topics/education-participation/citizen-participation-your-opinion-matters/general-information-environmental-assessments/
2) https://ec.europa.eu/environment/eia/index_en.htm

11. Methodical instructions for students on mastering the discipline (module)

Independent work of students includes:

- individual study of theoretical material on the subject of the course (links to information sources are presented in the previous sections);
- study of additional material presented in the course "Environmental standards and norms for the sustainability" (paragraph 9 of this program);
- preparation of abstracts on the topics specified in the program.

Independent study of additional theoretical material is carried out by students on an individual basis; the list of recommended information sources is given above.

Requirements for writing abstracts Academic ethics, copyright compliance. In the first lesson, students are informed about the need to comply with the norms of academic ethics and copyright in the course of their studies.

In particular, information is provided: - general information about copyright; - citation rules; - rules of link formatting All footnotes in the text are carefully checked and provided with "addresses".

It is not permissible to include in your work excerpts from the works of other authors without indicating this, to retell someone else's work close to the text without referring to it, to use other people's ideas without indicating the primary sources. This also applies to sources found on the Internet. You must indicate the full site address.

All cases of plagiarism must be excluded. If unjustified and incorrect borrowings are identified, the abstract is not accepted. When preparing written works, the following must be submitted without fail: work plan; a list of used literature, drawn up in accordance with the current rules for the bibliographic description of used sources.

For the preparation of the abstract, only special relevant sources should be used. In addition to abstracts, the subject of which is related to the dynamics of any phenomena over many years, or the historical development of scientific views on any problem, sources should be used for a period of no more than 10 years. The prepared essay should be presented at one of the classes in agreement with the teacher.

Use of PowerPoint presentations (or those prepared using similar licensed or free software) is encouraged, but not required. The approximate time of the report is up to 15 minutes. The structure of the report and additional requirements for the quality of materials are determined by the chosen topic and are additionally discussed with the teacher.

12. Fund of assessment tools for intermediate certification of students in the discipline (module)

Materials for assessing the level of mastering the educational material of the discipline "Environmental impact assessment" (evaluation materials), including a list of competencies indicating the stages of their formation, a description of indicators and criteria for evaluating competencies at various stages of their formation, a description of the assessment scales, typical control tasks or other materials necessary to assess knowledge, skills, skills and (or) experience of activity, characterizing the stages of the formation of competencies in the process of mastering the educational program, methodological materials that determine the procedures for assessing knowledge, skills, skills and (or) experience of activities that characterize the stages of the formation of competencies are developed in full and are available for students on the discipline page at TUIS RUDN.

The program has been drawn up in accordance with the requirements of the ES of HE RUDN University.

Developers

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