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

COURSE SYLLABUS

Environmental accounting and reporting

(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 goal is to get practical competences in preparation official state and free environmental statistical reporting forms as well as processing and analyses of data obtained.

2. LEARNING OUTCOMES

The mastering of the discipline "Environmental accounting and reporting" is aimed at the formation of the following competencies (parts of competencies) in students:

Indicators of competence achievement Code Competence (within the framework of this discipline) Able to carry out a critical **GC-1.1** able to analyze a problem situation as a system, analysis of problem identifying its components and the connections between situations based on a them systematic approach, to **GC-1.2** possesses argumentation and develops a meaningful GC -1 develop a strategy of strategy for solving a problem situation based on systemic actions and interdisciplinary approaches GC -1.3 knows the basics of the strategy and identifies possible risks, suggesting ways to eliminate them Able to use modern SPC-4.1 Able to apply modern methods of processing and methods of processing and interpreting environmental information when conducting interpreting environmental industrial research information in scientific SPC-4.2 Able to interpret the results of studies in terms of SPC -4 and industrial research. compliance with safety and performance indicators **SPC-4.3** Has the skills to conduct control and supervisory activities based on modern methods of processing environmental information Able to develop standard SPC-5.1 Able to develop and plan the implementation of environmental measures standard environmental measures, taking into account and assess the impact of international practice and the requirements of national planned facilities or other legislation forms of economic SPC-5.2. Has the skills to assess the impact of planned activity on the structures or other forms of economic activity on the SPC-5 environment environment SPC-5.3 Knows the requirements for the preparation and implementation of programs for the environmental modernization of enterprises, the introduction of BAT, the organization of environmental monitoring, accounting and reporting **SPC-6.1** Capable of detecting inconsistencies in the state of Able to develop standard environmental measures environmental components with the requirements of and assess the impact of national and international standards SPC-6 planned facilities or other **SPC-6.2** Able to develop programs for monitoring natural forms of economic complexes under conditions of technogenic loads and activity on the programs for environmental rehabilitation of territories environment

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

3. COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE

The discipline "Environmental accounting and reporting" 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 "Environmental accounting and reporting".

Code	Competence	Previous Disciplines (Modules)	Subsequent Disciplines (Modules)
GC-1	Able to carry out a critical analysis of problem situations based on a systematic approach, to develop a strategy of actions	(Modules) IT in ecology and natural resources management / Компьютерные технологии в управлении природопользованием Management of natural resources / Менеджмент природных ресурсов	Environmental noms for sustainability / Экологические нормы для устойчивого развития Учебная практика / Educational practice Производственная практика / Production practice Научно-исследовательская работа / Research work НИР / Research work Преддипломная практика / Pre-
SPC -4	Able to use modern methods of processing and interpreting environmental information in scientific and industrial research.	Industrial nature management and economics / Промышленное природопользование и экономика Standards of environmental management and оссираtional safety / Стандарты экологического менеджмента и охраны труда Occopational safety and HSE-audit / Охрана труда и HSE-аудит	graduate practice Wastes: Landfills, Processing and Recycling / Отходы: хранение, захоронение, рециклинг Surface water quality: modeling and management / Качество поверхностных вод: моделирование и менеджмент Базовая компонента Учебная практика / Educational practice Вариативная компонента Производственная практика / Production practice Hayчно-исследовательская работа / Research work HИP / Research work Преддипломная практика / Pre- graduate practice
SPC-5	Able to develop standard environmental measures and assess the impact of planned facilities or	Estimations of natural resources / Оценки природных ресурсов Management of environmental- economic risks /	Modern remediation technologies / Современные технологии ремедиации Management of water resources / Управление водными ресурсами

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

Code	Competence	Previous Disciplines (Modules)	Subsequent Disciplines (Modules)
	other forms of economic activity on the environment	Управление эколого- экономическими рисками Учебная практика / Educational practice Научно- исследовательская работа / Research work	Environmental-economic aspects of environmental projects / Эколого- экономические аспекты экологических проектов Wastes: Landfills, Processing and Recycling / Отходы: хранение, захоронение, рециклинг Surface water quality: modeling and management / Качество поверхностных вод: моделирование и менеджмент Производственная практика / Production practice HИР / Research work Преддипломная практика / Pre- graduate practice
SPC-6	Able to develop standard environmental measures and assess the impact of planned facilities or other forms of economic activity on the environment	Management of natural resources / Meнеджмент природных pecypcoB Modern technologies for nature protection / Coвременные технологии защиты okpyжающей cpeды Industrial nature management and economics / Промышленное природопользование и экономика Economic aspects of natural resources management / Экономические аспекты природопользования Standards of environmental management and occupational safety / Стандарты экологического менеджмента и охраны труда Occupational safety and HSE-audit / Oxpana труда и HSE-аудит	Modern remediation technologies / Современные технологии ремедиации Management of energy resources / Mенеджмент ресурсов энергетики Environmental noms for sustainability / Экологические нормы для устойчивого развития Wastes: Landfills, Processing and Recycling / Отходы: хранение, захоронение, рециклинг Surface water quality: modeling and management / Качество поверхностных вод: моделирование и менеджмент Industrial safety / Промышленная безопасность Simulation and prevention of accidents / Моделирование и предупреждение аварий Учебная практика / Educational practice Производственная практика / Production practice Hayчно-исследовательская работа / Research work HUP / Research work Преддипломная практика / Pre- graduate practice

4. COURSE WORKLOAD AND ACADEMIC ACTIVITIES

Workload of the course «Environmental accounting and reporting» is 2 ECTS.

Вид учебной работы		TOTAL	Semesters			
		IUIAL	1	2	3	4
Contact academic hours		17				
Incl.:						
Lectures						
Lab work						
Seminars		17	17			
Self-study		28	28			
Evaluation and assessment		27	27			
Total workload	Ac.hours	72	72			
i otai woi kivau	ECTS	2	2			

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

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.	Environment as an object of statistical observation. Sources of statistical data in the sphere of environmental protection, environmental safety and nature management	Seminars
State statistical observation	State statistical observation. Systems of accounting and reporting. Theoretical basics of environmental statistics. Characteristics of natural resources as a part of national welfare. System of indicators of statistics of natural resources. Environment and Natural Resources Statistics	Seminars
Environmental statistics for enterprises	Statistical observation in the field of environmental management and sustainable development at the level of enterprises and companies. Reporting formats. Use of Observations	Seminars
Environmental accounting and reporting	International practice. Standards of non-financial reporting. Green reporting. GRI standards.	Seminars
Environmental accounting and reporting as an informational base for the analyses	Environmental accounting and reporting as an informational base for the analyses. Sources oaf data and approaches to their analyses. Sustainability indicators of an organization.	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
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:

GRI STANDARDS: URL: https://www.globalreporting.org/how-to-use-the-gri-standards/gri-standards-english-language/

Additional sources:

1. Crowther D. A Social Critique of Corporate Reporting: A Semiotic Analysis of Corporate Financial and Environmental Reporting: A Semiotic Analysis of Corporate Financial and Environmental Reporting. – Routledge, 2018.

2. Esty D. C., Cort T. (ed.). Values at work: Sustainable investing and ESG reporting. – Palgrave Macmillan, 2020.

3. ESG Data Book 2022. URL: <u>https://corporate.ford.com/content/dam/corporate/us/en-us/documents/reports/esg-data-book.pdf</u>

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» <u>http://www.biblioclub.ru</u>

- electronic library system Юрайт <u>http://www.biblio-online.ru</u>

- electronic library system «Консультант студента» <u>www.studentlibrary.ru</u>

- electronic library system «Лань» <u>http://e.lanbook.com/</u>

- electronic library system «Троицкий мост»

2. Databases and search engines:

- electronic fund of legal and regulatory and technical documentation <u>http://docs.cntd.ru/</u>

- Yandex search engine https://www.yandex.ru/

- Google search engine https://www.google.ru/

- abstract database SCOPUS http://www.elsevierscience.ru/products/scopus/

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*Educational and methodological materials for independent work of students during the development of the discipline/ module *:*

1. A course of lectures on the discipline "Environmental accounting and reporting".

* - 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 "Environmental accounting and reporting" 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:

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Name

HEAD OF THE DEPARTMENT: Head of the Department of Environmental Safety and Product Quality Management

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