ACADEMY OF ENGINEERING

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

COURSE SYLLABUS

Ecological Management at Innovative Enterprise

course title

Recommended by the Didactic Council for the Education Field of:

27.04.05 Innovatics

field of studies / speciality code and title

The course instruction is implemented within the professional education program of higher education:

Digital transformation in production management

higher education program profile / specialization title

1. THE PURPOSE OF MASTERING THE DISCIPLINE

The purpose of mastering the discipline is to gain knowledge, skills and experience in the field of environmental management at innovative enterprises, characterizing the stages of competency formation and ensuring the achievement of the planned results of mastering the educational program.

The purpose of mastering the discipline is to acquire knowledge, skills and abilities in the field under study, characterizing the stages of competence formation and ensuring the achievement of the planned results of mastering the educational program.

2. REQUIREMENTS FOR THE RESULTS OF MASTERING THE DISCIPLINE

Mastering the discipline is aimed at developing the following competencies (parts of competencies) among students:

Table 2.1. The list of competencies formed by students in the course of mastering the discipline (the results of mastering the discipline)

Compe- tency code	Name of competence	Competence achievement indicators (within this discipline)
PC-2	Shows the knowledge of innovative products	PC-2.2. Uses methods of ecological safety
	quality, value and competitive ability assessment	assessment

3. THE PLACE OF DISCIPLINE IN THE STRUCTURE OF OP VO

The discipline refers to the part formed by the participants in educational relations of the OP VO. Within the higher education programme students also master other disciplines and internships that contribute to the achievement of the expected learning outcomes as results of the subject mastery.

Table 3.1. The list of components of the OP VO that contribute to the achievement of the planned results of the development of the discipline

Compe- tency code	Nome of competence	Previous disciplines, practices	Subsequent disciplines, practices
PC-2	Shows the knowledge of	-	Practical applications of Earth remote sensing
	innovative products quali-		data and GIS; Introductory training; Organiza-
	ty, value and competitive		tion and managerial training (S); Organization
	ability assessment		and managerial training (P); Pre-degree training;
			State exam; Graduation qualification work

4. THE PLACE OF DISCIPLINE IN THE STRUCTURE OF OP VO

The total complexity of the discipline is 3 credit units.

Table 4.1. Types of educational work by periods of development of OP VO

Type of study work		Total, Academic hour	Semester 1
Contact work		36	36
Including:			
Lectures		18	18
Seminars		18	18
Autonomous work		63	63
Control (test with assessment)	9	9	
The total complexity of the discipline	Academic hours	108	108
The total complexity of the discipline	Credit Units	3	3

5. CONTENT OF THE DISCIPLINE

Table 5.1. The content of the discipline by type of educational work

Name of the discipline section	Contents of the section (topic)	Types of education- al work
Economic development and en-	Stages of the Club of Rome. Goals and objectives of the	LEC,
vironmental factors. Sustainable	Stockholm Conference and the Conference in Rio de Janei-	SM, IW
development. From technogenic	ro. The principles of sustainable development. Nat. sustain-	
to sustainable development	able development programs.	

Use and protection of renewable	Use, protection and renewal of water, air resources, soil and	LEC,
natural resources	biota.	SM, IW
Use and protection of non-	Use, renewal and protection of subsoil.	LEC,
renewable natural resources		SM, IW
Key environmental management	Environmental audit, environmental insurance, environ-	LEC,
tools	mental labeling	SM, IW
Greening sectors of the economy	The economic mechanism of the eco-economization of the	LEC,
	economy. The state and the market in environmental pro-	SM, IW
	tection. Greening the economy and overcoming environ-	
	mental crises. The effectiveness of environmental protec-	
	tion measures.	

* LEC - lecture, SM - seminars; IW - independent work

6. LOGISTICS AND TECHNICAL SUPPORT OF THE DISCIPLINE

Table 6.1. 1	Logistics of	of discipline
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Types of Auditorium	Audience equipment	Specialized educational / labora- tory equipment, software and materials for mastering the disci- pline (if necessary)
For lectures	An auditorium for lecture-type classes, equipped with a set	-
	of specialized furniture; board (screen) and technical means	
	of multimedia presentations	
For seminars	Audience for conducting seminar-type classes, group and	-
	individual consultations, current control and intermediate	
	certification, equipped with a set of specialized furniture	
	and technical means for multimedia presentations	
For autono-	An auditorium for independent work of students (can be	-
mous work	used for seminars and consultations), equipped with a set of	
	specialized furniture and computers with access to the EIS	

7. EDUCATIONAL-METHODOLOGICAL AND INFORMATION SUPPORT OF THE DISCIPLINE

Main literature:

1. Ларионов В.Г., Павленков М.Н., Воронин П.М. [и др.] Организация и управление твердыми коммунальными отходами города в рамках экологического менеджмента / Московский государственный технический университет им. Н.Э. Баумана, Нижегородский государственный университет им. Н.И. Лобачевского [и др.]. 5-е изд. М.: Дашков и К°, 2023. 366 с.

2. Вершков А.В., Москалев А.К. Экологические основы инновационной деятельности: учебное пособие: [16+] / Сибирский федеральный университет. Красноярск: Сибирский федеральный университет (СФУ), 2023. 224 с.

3. Черных Н.А. The Urgent Ecological and Environmental Management Problems: Actual environmental problems of the third millennium / Электронные текстовые данные. М. Изд-во РУДН. 2015. 246 с. ISBN 978-5-209-06401-5.

4. Черных H.A. The Urgent Ecological and Environmental Management Problems: The Urgent Ecological and Environmental Management Problems / Электронные текстовые данные. М. Изд-во РУДН. 2015. 353 с. ISBN 978-5-209-06401-5.

Additional literature:

Латушкина Е.Н. Охрана окружающей природной среды: государственное управление природопользованием: Учебно-методическое пособие / М.: Изд-во РУДН. 2012. 32 с. ISBN 978-5-209-04462-8: 0.00.

The electronic library system (ELS) of RUDN University and third-party EBS, to which university students have access on the basis of concluded contracts:

- ELS RUDN http://lib.rudn.ru/MegaPro/Web
- ELS «University Library Online» <u>http://www.biblioclub.ru</u>
- ELS Юрайт <u>http://www.biblio-online.ru</u>

- ELS «Student Advisor» <u>www.studentlibrary.ru</u>
- ELS «Троицкий мост»

Databases and browsers:

- Electronic fund of legal and normative-technical documentation http://docs.cntd.ru/
- Yandex search https://www.yandex.ru/
- Google search https://www.google.ru/
- Abstract database SCOPUS http://www.elsevierscience.ru/products/scopus/

Educational and teaching materials for independent work of students in the course of mastering the discipline*:

A course of lectures on the discipline.

* all educational and teaching materials for independent work of students are placed in accordance with the current procedure on the discipline page in the telecommunication educational in-formation system (TEIS) of RUDN

8. EVALUATION MATERIALS AND SCORE-RATING SYSTEM FOR ASSESSING THE LEVEL OF FORMATION OF COMPETENCES IN THE DISCIPLINE

Evaluation materials and a point-rating system for assessing the level of formation of competencies (parts of competencies) based on the results of mastering the discipline are presented in the Appendix to this Work Program of the discipline.

DEVELOPERS:

Associate professor, Department of Innovation Management in Industries

position, educational department

HEAD OF EDUCATIONAL DEPARTMENT:

Department of Innovation Management in Industries

educational department

HEAD OF EDUCATIONAL PROGRAM:

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