Уникальный программный ключ:

AONTHO PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA NAMED AFTER PATRICE LUMUMBA (RUDN University)

Са953a0120d891083f939673078ef1a989dae18a Institute of Environmental Engineering

## **INTERNSHIP SYLLABUS**

## **Industrial Internship**

**Recommended by the Didactic Council for the Education Field of:** 05.04.06 "Ecology and Nature Management"

The student's internship is implemented within the professional education programme of higher education:

**Climate Projects Management** 

## 1. INTERNSHIP GOAL(s)

**The internship is designed to help students to** systematize and deepen the theoretical and practical knowledge gained in special disciplines of the educational program "Climate Project Management", the application of knowledge and skills in solving specific tasks of professional activity at the modern level; collection, systematization, processing of factual material on the topic of graduation qualification work; preparation of analytical materials on the research topic.

## • 2. REQUIREMENTS FOR LEARNING OUTCOMES

The internship is designed for students to acquire following competences (competences in part):

Code	Code and name of the	Code and name of the indicator of achievement of
	graduate's competence	competence
GC-1	Able to carry out a problem	GC-1.1 can analyze the problem situation as a system,
	situations critical analysis	identifying its components and the links between them
	based on a systematic	
	approach, able to develop an	
	action strategy	
GC-4	Able to apply regulatory legal	GPC-4.1 knows the environmental regulation and
	acts and norms of professional	legislation basics in the field of nature management
	ethics in the field of ecology	GPC-4.2 knows how to use and apply regulatory legal acts
	and nature management	in the field of ecology and nature management
		GPC-4.3 able to use the professional ethics norms in the
		professional activities
GC-5	Able to analyze and take into	GC-5.1 knows the main categories of philosophy, the laws
	account the cultures diversity	of historical development, the intercultural communication
	in the intercultural interaction	basics
	process	
GPC-6	Able to design, represent,	GPC-6.3 knows methodological foundations of scientific
	protect and disseminate the	research, copyright and scientific ethics requirements
	results of the professional	
	activities, including research	

*Table 2.1. List of competences that students acquire during the internship* 

## 3. INTERNSHIP IN HIGHER EDUCATION PROGRAMME STRUCTURE

The internship refers to the component of (B2) block of the higher educational programme curriculum. Within the higher education programme students also master other disciplines (modules) and / or internships that contribute to the achievement of the expected learning outcomes as results of the internship.

Table 3.1 The list of the higher education programme components that contribute to the achievement of the expected learning outcomes as the internship results.

Competence code	Competence descriptor	Previous courses/modules, internships*	Subsequent courses/modules, internships*
GC-1	Able to carry out a problem	International Standards	No
	situations critical analysis based on	for GHG Management,	NO

	a systematic approach, able to develop an action strategy	Environmental Engineering and Climate Change	
GC-4	Able to apply regulatory legal acts and norms of professional ethics in the field of ecology and nature management	Carbon Cycles, Climate Change Models, International Standards for GHG Management	Climate Neutrality and Waste Management, Carbon Test Areas and GHG Monitoring, Climate Project Development, Pre-graduate Internship
GC-5	Able to analyze and take into account the cultures diversity in the intercultural interaction process	Environmental Engineering and Climate Change, Research Work (R&D) (obtaining primary skills of research work)	Climate Neutrality and Waste Management, Pre-graduate Internship
GPC-6	Able to design, represent, protect and disseminate the results of the professional activities, including research	Methodology of Scientific Creation, Research Work (R&D) (obtaining primary skills of research work)	No

## 4. INTERNSHIP WORKLOAD

The total workload of the internship is 15 credits (540 academic hours).

## **5. INTERNSHIP CONTENTS**

Table 5.	1.	Internship	contents
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Modules	Contents (topics, types of practical activities)	Workload, academic
		hours
Module 1.	1.1 Registration for the company. Safety instructions.	44
Preparatory stage	reparatory stage 1.2 General familiarity with the company, labor	
	protection and internal regulations.	
	1.3 Selection of methods and methods for searching,	32
	processing and storing production information.	
Module 2.	2.1. Familiarization with the main production	32
Completing the practice	facilities / organizations.	
assignment Making a practice diary.		
	2.2. Studying the organization of work at the	32
	enterprise, including receiving a task from the head	
	of the practice at the enterprise / organization.	
	Making a practice diary.	
	2.3. Study of standards, normative-technical and	32
	reference literature used at the enterprise /	
	organization, standard control of design documents	
	in the field of greenhouse gas management.	
	Making a practice diary.	
	2.4. Study of technical and design documentation in	40
	the field of greenhouse gas management	
	Making a practice diary.	

2.5. Study of technological processes in the field of	40
greenhouse gas management	
Making a practice diary.	
2.6. The study of technological processes for the	40
manufacture of energy, resource-saving and	
environmental systems.	
Making a practice diary.	
2.7. Development of proposals for improving	40
technological processes in the field of greenhouse	
gas management. Analysis of the obtained task	
results.	
Making a practice diary.	
2.8. Preparation of the results of the work carried	24
out to the head of the practice at the enterprise /	
organization.	
Making a practice diary.	
Preparation of the internship report	10
Report Defense	10
Total:	540

### 6. INTERNSHIP EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

Industrial internship for obtaining professional skills and abilities is carried out for 10 weeks, starting from the second half of April at enterprises that are large emitters of greenhouse gases or implementing climate projects, greenhouse gas validation and verification bodies.

The most frequently visited enterprises include organizations working in the energy, chemical industry and forestry sectors, etc

- The Body for the validation and verification of greenhouse gases RUDN
- GAZPROMNEFT SUPPLY Limited Liability Company
- Mosoblgaz Joint Stock Company
- RN-Yuganskneftegaz LLC
- Rusatom Overseas Joint Stock Company
- LUKOIL-Tsentrnefteprodukt Limited Liability Company

#### 7. INTERNSHIP LOCATION AND TIMELINE

The internship can be carried out at the structural divisions of RUDN University (at Moscow-based organisations, as well as those located outside Moscow.

The internship at an external organisation (outside RUDN University) is legally arranged on the grounds of an appropriate agreement, which specifies the terms, place and conditions for an internship implementation at the organisation.

The period of the internship, as a rule, corresponds to the period indicated in the training calendar of the higher education programme. However, the period of the internship can be rescheduled upon the agreement with the Department of Educational Policy and the Department for the Organization of Internship and Employment of RUDN students.

#### 8. RESOURCES RECOMMENDED FOR INTERNSHIP

Main reading:

1. Goosse H., P.Y. Barriat, W. Lefebvre, M.F. Loutre and V. Zunz, (2008-2010). Introduction to climate dynamics and climate modeling. Online textbook available at http://www.climate.be/textbook.

Additional reading:

1. Methodology climate projects. <u>http://www.igce.ru/performance/издательская-</u> деятельность/methodology\_of\_climate\_projects

2. ISO 14064-2 Greenhouse gases — Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements.

Internet-based sources

1. ELS of RUDN University and third-party ELS, to which university students have access on the basis of concluded agreements:

- RUDN Electronic Library System - RUDN EBS <u>http://lib.rudn.ru/MegaPro/Web</u>

- ELS "University Library Online" <u>http://www.biblioclub.ru</u>
- EBS Yurayt http://www.biblio-online.ru
- ELS "Student Consultant" www.studentlibrary.ru
- EBS "Lan" http://e.lanbook.com/
- EBS "Trinity Bridge"
- 2. Databases and search engines:
- electronic fund of legal and normative-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/

# 8. ASSESSMENT TOOLKIT AND GRADING SYSTEM FOR EVALUATION OF STUDENTS' COMPETENCES LEVEL AS INTERNSHIP RESULTS

The assessment toolkit and the grading system to evaluate the level of competences (competences in part) formation as the internship results are specified in the Appendix to the internship syllabus.

#### **DEVELOPER:**

Senior Lecturer of the ES&PQM Department		Khitev Yu.P.
Position	Signature	Name, Surname
HEAD OF DEPARTMENT:		
Director of ES&PQM Department		Savenkova E.V.
Position	Signature	Name, Surname
HEAD OF PROGRAMME:		
Director of ES&PQM Department		Savenkova E.V.
Position	Signature	Name, Surname