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Информация о владельце:  
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Должность: Ректор  
Дата подписания: 04.02.2025 11:22:56  
Уникальный программный ключ:  
ca953a0120d891083f939673078ef1a989dae18a

**Federal State Autonomous Educational Institution of Higher Education  
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA NAMED AFTER PATRICE  
LUMUMBA  
RUDN University**

**ACADEMY OF ENGINEERING**

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

**INTERNSHIP SYLLABUS**

Pedagogical practice

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( internship title)

Recommended by the Didactic Council for the Education Field of:

**1.2.1. Artificial intelligence and machine learning**

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(field of studies / speciality code and title)

Scientific research is carried out within the framework of the postgraduate program:

**Artificial intelligence and machine learning**

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(higher education programme profile/specialisation title)

## 1. INTERNSHIP GOAL(s)

Pedagogical practice is aimed at the formation and development of competencies in graduate students in accordance with the level of education and professional standard; development of teaching skills in the field of theoretical mechanics, machine dynamics and related areas of technical knowledge in higher education; acquisition of skills of work in the scientific and pedagogical team.

The main tasks of pedagogical practice are:

- to study the methods and techniques of teaching and education in higher education;
- learn how to conduct classes in technical disciplines;
- master the primary skills of modeling classes, drawing up programs and projects, planning individual classes and predicting a special course, choosing an effective organization strategy.

## 2. INTERNSHIP WORKLOAD

The total workload of the internship is 5 credits (180 academic hours).

## 3. INTERNSHIP CONTENTS

*Table 3.1. Internship contents\**

Name of section of the practice	Section content (topics, practical activities)	Labour input, hours per week
<b>3 term</b>		
Section 1: Organisational and preparatory	Receipt of an individual practical assignment from the supervisor	2
	A safety briefing in the workplace (laboratory and/or production)	2
Section 2: Substantive	Familiarisation with the training activities of the mechanics and mechatronics department	8
	Develop training materials	12
	Carry out the lessons and implement the training tools developed	40
	Keeping the Internship diary	2
Section 3: Reporting	Preparing the presentation of the internship	4
	Intermediate assessment (preparation and presentation)	2
<b>4 term</b>		
Section 1: Organisational and preparatory	Receipt of an individual practical assignment from the supervisor	2
	A safety briefing in the workplace (laboratory and/or production)	2
Section 2: Substantive	Familiarisation with the training activities of the mechanics and mechatronics department	8
	Develop training materials	16
	Carry out the lessons and implement the training tools developed	60

Name of section of the practice	Section content (topics, practical activities)	Labour input, hours per week
	Supervise the supervision of the traineeship	2
	Keeping the Internship diary	9
Preparation for defence and defence of the internship report		9
<b>TOTAL:</b>		<b>180</b>

\* The contents of internship through modules and types of practical activities shall be FULLY reflected in the student's internship report.

#### **4. INTERNSHIP EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS**

For the successful implementation of Pedagogical practice, you need: a workplace, a computer, a printer, a library fund.

There is access to computer classes for processing materials collected by a graduate student during the practice.

The library fund should provide graduate students with basic literature in the amount of 0.5 copies per person.

Postgraduate students are also given the opportunity to use the Internet in an educational institution.

#### **5. INTERNSHIP LOCATION AND TIMELINE**

"Pedagogical internship can be carried out both in the structural divisions of PFUR or in Moscow organizations (stationary) and on the bases outside Moscow (offsite).

Practical training on the basis of an external organization (outside the PFUR) is carried out on the basis of a corresponding agreement, which specifies the terms, place and conditions of practical training in the base organization.

The internship dates correspond to the period specified in the calendar of the postgraduate programme. The deadlines can be adjusted in agreement with the Department of Educational Policy and the Department of Internships and Student Employment at PFUR.

#### **6. RESOURCES RECOMMENDED FOR INTERNSHIP**

##### *Main readings:*

Development of professionalism of higher school teacher. textbook. V.S. Agapov [et al.].-M.: Publishing house of RAGS, 2017.  
[http://lib.rudn.ru/MegaPro2/UserEntry?Action=Rudn\\_FindDoc&id=470098&idb=0](http://lib.rudn.ru/MegaPro2/UserEntry?Action=Rudn_FindDoc&id=470098&idb=0).

2. Miroshnichenko N. A., Stefanov S. A. To help a young teacher. methodical manual / N. A. Miroshnichenko, S. A. Stefanov.-Odessa: Yuridichna literatura, 2003.-92 p.

3. Skok G.B., Lygina N.I. How to design an educational process for a course: Textbook. Ed. second revised and supplemented. - Moscow: Pedagogical Society of Russia. 2017. - 96c.

[http://lib.rudn.ru/MegaPro2/UserEntry?Action=Rudn\\_FindDoc&id=470098&idb=0](http://lib.rudn.ru/MegaPro2/UserEntry?Action=Rudn_FindDoc&id=470098&idb=0)

4. Lapaeva M.G., Lapaev S.P.; Ministry of Education and Science of the Russian Federation, Federal State Budgetary Educational Institution of Higher Education "Orenburg State University". - Orenburg: Orenburg State University, 2017. - 249 p.: ill. - Bibliography

in the book - ISBN 978-5-7410-1791-3; [Electronic resource]. - URL: <http://biblioclub.ru/index.php?page=book&id=485476> (06.05.2018).\.

5. Education quality management: Practice-oriented monograph and methodological guide / Edited by M.M. Potashnik. M., 2016. URL: <http://biblioclub.ru/index.php?page=book&id=230540>.

*Additional readings:*

1. RUDN HEO (higher education level - training of higher qualification) in the field of training 01.06.01 Mathematics and Mechanics
2. local Acts of PFUR
3. Working programs of disciplines of the Department of Mechanics and Mechatronics in the fields of study 27.03.04 "Management in technical systems", 27.04.04 "Management in technical systems".

*Internet sources*

1. Electronic libraries (EL) of RUDN University and other institutions, to which university students have access on the basis of concluded agreements:

- RUDN Electronic Library System (RUDN ELS) <http://lib.rudn.ru/MegaPro/Web>
- EL "University Library Online" <http://www.biblioclub.ru>
- EL "Yurayt" <http://www.biblio-online.ru>
- EL "Student Consultant" [www.studentlibrary.ru](http://www.studentlibrary.ru)
- EL "Lan" <http://e.lanbook.com/>
- EL "Trinity Bridge"

*2. Databases and search engines:*

- electronic foundation of legal and normative-technical documentation <http://docs.cntd.ru/>
- Yandex search engine [https:// www .yandex.ru/](https://www.yandex.ru/)
- Google search engine <https://www.google.ru/>
- Scopus abstract database <http://www.elsevierscience.ru/products/scopus/>

The training toolkit and guidelines for a student to do an internship, keep an internship diary and write an internship report\*:

1. Safety regulations to do the internship (safety awareness briefing).
2. Machinery and principles of operation of technological production equipment used by students during their internship; process flow charts, regulations, etc. (if necessary).
3. Guidelines for keeping an internship diary and writing an internship report.

\*The training toolkit and guidelines for the internship are placed on the internship page in the university telecommunication training and information system under the set procedure.

## **7. 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.

\* The assessment toolkit and the grading system are formed on the basis of the requirements of the relevant local normative act of RUDN University (regulations / order).

**DEVELOPERS:**

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position, educational department

signature

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name and surname.

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