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

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

Base department "Machine-building technologies"

(department realizing the PhD program)

INTERNSHIP SYLLABUS

Pedagogical Training

(internship type)

Scientific specialty:

2.5.6. Mechanical Engineering Technology

(scientific speciality code and title)

The PhD student's internship is implemented within the PhD programmes:

Mechanical Engineering Technology

(PhD program title)

2025

1. INTERNSHIP GOALS

The purpose of pedagogical practice is:

- 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 mechanical engineering, machine tools and tools, as well as related areas of technical knowledge in higher education;
- acquisition of skills of work in the scientific and pedagogical team.

The main **objectives** of the discipline are:

- developing the habit of graduate students to search for pedagogical information in new conditions, to the ability to analyze pedagogical situations and perform “assignments-compositions”;
- to form postgraduate students' readiness for independent development of methodological support for the implementation of modern goals of vocational education in higher education;
- mastering the design and conduct of the pedagogical process, assessing the effectiveness of its results;
- prepare graduate students to use a set of methods and forms of organization of the educational process at the university;

educate mobility, activity, initiative, independence

2. REQUIREMENTS FOR LEARNING OUTCOMES

Conducting "Pedagogical practice" is aimed at mastering the competencies of the direction.

3. INTERNSHIP WORKLOAD

The total labor intensity of " Pedagogical Practice" is 5 credits (180 academic hours).

4. INTERNSHIP CONTENTS

*Table 4.1. Practice content**

Stages of internship	Content of the units (topics)	Workload, acad. hours
Section 1. Organizational and preparatory	Receipt individual tasks on practice from leader.	1
	Safety training at the workplace (in the laboratory and / or in production). Setting the goal and objectives of the practice.Review And analysis information according to assigned disciplines.	1
Section 2. Main	Conducting various types of training sessions. The study of regulatory documents, the structure of the educational process, the programs of courses taught.	70

Stages of internship	Content of the units (topics)	Workload, acad. hours
	Attendance at teachers' classes; independent preparation of plans and abstracts of classes in academic disciplines; selection and analysis of basic and additional literature.	60
	Participation in scientific and practical n, seminars and meetings of methodological sections; participation in the activities of the department for the development of work programs for the disciplines of the department.	20
	Current control passing practices from the side leader.	7
	Doing diary passing practices.	3
Section 3. Reporting .	Preparation of a practice report	9
	Preparation for defense and defense of the practice report	9
	TOTAL:	**180**

* - the content of practice by sections and types of practical training is FULLY reflected in the student's report on practice.

5. INTERNSHIP EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

Auditorium with logistic list	Location
A set of specialized furniture; hardware: Epson portable multimedia projector EMP - X5 ; portable multimedia projector BENQ MW 533; HP laptop Compaq 6720s ; _ Stand (Machining) Stand (Cutting tool)	Moscow, Podolskoe sh., 8/5 Classroom for conducting lecture and seminar classes: room. №110
EMCO Mill Machine EMCO Turn computerized workplace Stand (CNC system Sinumerik 810D/840D); Stand (ECMO Turn and Mill) Stand (Sinumerik 810/840D) Bench (Sinumerik 810/840D and Fanuc O-TC (O-MC))	Moscow, st. Podolskoe highway, 8, building 5 Laboratories of automation and computerization of technological processes of metal processing.
Screw-cutting lathe 16K20 Laser engraving machine ILS-II-30 Microscope UIM-21 Ultrasonic machine M01 Machine 6A-12P Vertical milling machine 6P13 Desktop lathe MK3002 Desktop grinding machine VSh-032 Drilling-milling-boring machine SFRS-02 Planing machine 7E35 Screw-cutting lathe 16K20T1 Screw-cutting lathe 16K20	Moscow, st. Podolsk highway, d.8, k.5. Laboratory Laboratory for Research of Technological Processes

Turret lathe 1B-118 Turret lathe 1G-325 Universal tool-grinding machine 3D 642E Milling machine mod. 675 Milling machine FS250-02 Installation DIMET 404-M	
Personal computers	Moscow, Podolskoe sh., 8, building 5, Computer class No. 112.
Multimicroscope scanning "SMM-2000" Spectrum analyzer 8-channel portable Portable roughness tester TR 200 Digital microhardness tester model HVS-1000 Profiler Kasaka Lab SE1200 Laboratory complex "Metrology of lengths MLI1M"; Measuring and control tools: vernier caliper, straightedge, dial indicator. Laboratory complex "Profilometer model 130" Personal computers	Moscow, Podolskoe sh., 8/5 Laboratory of Nanosystems in Mechanical Engineering: rooms 103, 108.

6. INTERNSHIP LOCATION AND TIMELINE

"Pedagogical practice" can be carried out both in the structural divisions of the RUDN University or in organizations in Moscow (stationary), and at bases located outside of Moscow (exit).

Conducting an internship on the basis of an external organization (outside the RUDN University) is carried out on the basis of an appropriate agreement, which specifies the terms, place and conditions for conducting an internship in the base organization.

The terms of the practice correspond to the period indicated in the calendar study schedule of the postgraduate program. The timing of the internship can be adjusted upon agreement with the Department of Educational Policy and the Department for the Organization of Practices and Employment of Students at RUDN University.

7. RESOURSES RECOMMENDED FOR INTERNSHIP

Main literature:

1. Sharipov, F.V. Pedagogy and psychology of higher education: textbook / F.V. Sharipov. - Moscow: Logos, 2012. - 448 p. - (New University Library). - ISBN 978-5-98704-587-9 ; The same [Electronic resource]. - URL: http://biblioclub.ru/index.php?page=book&id=119459

2. Smirnov Sergey Dmitrievich. Pedagogy and psychology of higher education: from activity to personality [Electronic resource]: Textbook for universities / S.D. Smirnov. - 5th ed., stereotype . ; Electronic text data. - M. : Academy, 2010. - 400 p. - (Higher professional education). - System requirements: Windows XP and above. - ISBN 978-5-7695-7647-8 : 958.16.

3. Kanke Viktor Andreevich. History, philosophy and methodology of pedagogy and psychology [Text]: Textbook for universities / V.A. Kanke; Ed. M.N. Berulava . - M.: Yurayt , 2014. - 487 p. - ISBN 978-5-9916-2990-4 : 459.03.

4. Atabekova Anastasia Anatolyevna. Communicative training for the formation of foreign language communicative competence of students in a multi-level multicultural study group [Electronic resource]: Monograph / A.A. Atabekova, N.M. Belenkov . - M. : Publishing House of RUDN University, 2010. - 326 p. - ISBN 978-5-209-03495-7 : 0.00.

5. Andrey Verbitsky. Personal and competency-based approaches in education: problems of integration [Text/electronic resource] : Monograph / A.A. Verbitsky. - Electronic text data. - M. : Logos, 2009, 2010, 2013. - 336 p. - ISBN 978-5-98704-452-0 : 242.00.

Additional literature:

1. Ruzavin, G.I. Methodology of scientific knowledge: textbook / G.I. Ruzavin. - Moscow: Unity-Dana, 2015. - 287 p. - Bibliography . in book. - ISBN 978-5-238-00920-9 ; The same [Electronic resource]. - URL: http://biblioclub.ru/index.php?page=book&id=115020

2. Shadrikov Vladimir Dmitrievich. Professional abilities [Text]: Monograph / V.D. Shadrikov . - M. : Universitetskaya kniga, 2010. - 320 p. - ISBN 978-5-98699-134-4 : 253.00.

3. The quality of higher education / Ed. M.P. Karpenko . - M. : Publishing House of SSU, 2012. - 291 p. : ill. - ISBN 978-5-8323-0824-1 : 0.00.

Periodic editions:

1. Engineering technology.
2. Chemical And oil and gas mechanical engineering.
3. Machine tools and tools.
4. Engine building.
5. Bulletin of RUDN University.

Resources of the information and telecommunications network "Internet":

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

- RUDN Electronic Library System - RUDN EBS http://lib.rudn.ru/MegaPro/Web
- ELS "University Library Online" http://www.biblioclub.ru
- 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 /

*Educational and methodological materials for internship, filling out a diary and preparing an internship report *:*

1. Safety rules for the passage of Pedagogical practice (initial briefing).
2. The general arrangement and principle of operation of technological production equipment used by students during their internship; flow charts and regulations, etc. (if necessary).
3. Guidelines for filling in a diary by students and preparing a practice report.

* - all educational and methodological materials for internship are posted in accordance with the current procedure on the internship page in TUIS!

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

Assessment toolkit and a grading system to evaluate the level of competences (competences in part) formation as the course results are specified on the TUIS platform.

DEVELOPERS:

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