Peoples' Friendship University of Russia named after Patrice Lumumba

Academy of Engineering

PROGRAM OF
FINAL STATE CERTIFICATION

For study field: 44.04.02 Psychology and Pedagogy
EP of HE "Pedagogy in Engineering"

Moscow
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1. PURPOSE AND OBJECTIVES OF THE STATE FINAL CERTIFICATION (SFC)

The purpose of the FSC within the framework of the implementation of the EP HE "Pedagogy in Engineering" is to determine the compliance of the results of mastering the EP HE by students with the relevant requirements of the Federal State Educational Standard of HE. The objectives of the state final certification are:
- checking the quality of teaching a person basic humanitarian knowledge, natural science laws and phenomena necessary in professional activities;
- determination of the level of theoretical and practical preparedness graduate to perform professional tasks in accordance with the received qualification;
- establishing the degree of a person's desire for self-development, improving their qualifications and skills;
-checking the formation of a graduate's sustainable motivation for professional activities in accordance with the stipulated ES HE types of tasks of professional activity;
- assessment of the level of graduates' ability to find organizational and managerial decisions in non-standard situations and readiness to bear for them responsibility;
 - ensuring the integration of education and scientific and technical activities, increasing the efficiency of using scientific and technological achievements, reforming the scientific sphere and stimulating innovation;
- ensuring the quality of training of specialists in accordance with the FSES HE requirements

2. At the end of the development of the EP HE, the graduate must have the following universal competencies (UC):

Code and name of competence	Code and the indicators of achievement of competence
UC-1 Able to carry out a critical analysis of problem situations on the basis of a systematic approach, to develop an action strategy	UC-1.1. Analyzes the problem situation and decomposes it into separate tasks. UC-1.2. Forms possible solutions to problems
UC-2 Able to manage the project at all stages of its life cycle	UC-2.1. Demonstrates knowledge of the characteristics of all stages of the project life cycle UC -2.2. Participates in project management at all stages of the life cycle
UC-3 Able to organize and lead the work of the team, developing a team strategy to achieve the goal	UC-3.1. Demonstrates knowledge of the principles of teamwork. UC-3.2. Supervises team members to solve assigned tasks
UC-4 Able to apply modern communication technologies, including in a foreign language(s), for academic and professional interaction	UC-4.1. Carries out academic and professional interaction, including in a foreign language. UC-4.2. Uses modern information and communication tools for academic and professional interaction
UC-5 Able to analyze and take into account the diversity of cultures in the process of intercultural interaction	UC-5.1. Demonstrates an understanding of different cultures UC-5.2. Builds social interaction, taking into account the common and different features of cultures and religions
UC-6 Able to determine and implement the priorities of their own activities and ways to improve them on the basis of self-esteem	UC-6.1. Assesses their resources and their limits (personal, situational, temporary), optimally uses them for the successful

	completion of the assigned task. UC-6.2. Determines the priorities of personal growth and ways to improve their own activities based on self-esteem
UC-7. Able to: search for the necessary sources of information and data, perceive, analyze, memorize and transmit information using digital means, as well as using algorithms when working with data obtained from various sources in order to effectively use the information received to solve problems; evaluate information, its reliability, build logical conclusions based on incoming information and data.	UC-7.1 Effectively finds sources of necessary information. UC-7.2 Owns methods of analysis and evaluation of information

Upon completion of the development of the EP HE, the graduate must have the following general professional competencies: (GPC):

Code and name of competence	Code and the indicators of achievement of competence
GPC-1 Able to carry out and optimize professional activities in accordance with regulatory legal acts in the field of education and the norms of professional ethics	GPC-1.1. Knows the regulations in the field of education and the norms of professional ethics GPC-1.2. Competently uses legal acts in the field of education and the norms of professional ethics in their professional activities
GPC -2 Able to design basic and additional educational programs and develop scientific and methodological support for their implementation	GPC-2.1. Possesses the skills of designing basic and additional educational programs GPC-2.2. Possesses the skills of developing scientific and methodological support for basic and additional educational programs
GPC-3 Able to design the organization of joint and individual educational and educational activities of students, including those with special educational needs	GPC-3.1. Competently projects the organization of joint and individual educational and educational activities GPC-3.2. Possesses the skills of organizing joint and individual educational activities of students with special educational needs
GPC-4 Able to create and implement the conditions and principles of spiritual and moral education of students on the basis of basic national values	GPC-4.1. Demonstrates knowledge of the principles of creating and implementing conditions for spiritual and moral education based on basic national values GPC-4.2. Effectively creates and implements the conditions of spiritual and moral education on the basis of basic national values
GPC-5 Able to develop programs for monitoring the results of students' education, develop and implement programs for overcoming learning difficulties	GPC-5.1. Demonstrates the skills of monitoring the educational outcomes of students GPC-5.2. Effectively develops and implements programs for overcoming learning difficulties
GPC-6 Able to design and use effective psychological and pedagogical, including	GPC-6.1. Competently owns the psychological and pedagogical technologies necessary for the

inclusive, technologies in professional activities necessary for the individualization of training, development, education of students with special educational needs	individualization of learning, development, education of students with special educational needs GPC -6.2. Demonstrates the skills of owning inclusive technologies necessary for the individualization of learning, development, education of students with special educational needs
GPC-7 Able to plan and organize interactions between participants in educational relations	GPC -7.1. Demonstrates the skills of planning the interaction of participants in educational relations OPK-7.2. Effectively organizes the interaction of participants in educational relations
GPC-8 Able to design pedagogical activities on the basis of special scientific knowledge and research results	GPC-8.1. Effectively designs pedagogical activities on the basis of special scientific knowledge and research results OPK-8.2. Demonstrates possession of special scientific knowledge
GPC-9 Able to possess tools for working with large amounts of structured and unstructured information, use modern digital methods of processing, analysis, interpretation and visualization of data in order to solve problems professional and research psychological and pedagogical activities	GPC-9.1. Effectively uses modern digital methods of processing, analysis, interpretation and visualization of data in order to solve the tasks of professional and research psychological and pedagogical activities OPK-9.2 Demonstrates the skills of using tools for working with large amounts of structured and unstructured information

At the end of the development of the EP HE, the graduate must have the following professional competencies: (PC):

Code and name of competence	Code and the indicators of achievement of competence
PC-1 Able to design basic and additional educational programs and develop scientific and methodological support for their implementation;	PC-1.1. Effectively uses the methods of designing basic and additional educational programs PC-1.2. Develops scientific and methodological support for the implementation of basic and additional educational programs
PC-2 Able to design the organization of joint and individual educational and educational activities of students, including those with special educational needs;	PC-2.1. Effectively uses the methods of designing, organizing joint and individual educational and educational activities PC-2.2. Works effectively with students with special educational needs
PC-3 Able to develop programs for monitoring the results of students' education, develop and implement programs for overcoming learning difficulties	PC-3.1. Competently uses methods for developing programs for monitoring the results of students' education PC-3.2. Effectively uses methods for

	developing programs to overcome learning difficulties
PC-4 Able to plan and organize interactions between participants in educational relations;	PC-4.1. Effectively plans the interaction of participants in educational relations PC-4.2. Effectively organizes the interaction of participants in educational relations
PC-5 Able to design pedagogical activities on the basis of special scientific knowledge and research results.	PC-5.1. Effectively designs pedagogical activities on the basis of special scientific knowledge and research results PC-5.2. Competently uses the methods of designing pedagogical activity on the basis of special scientific knowledge and research results

3. Composition of FSC can be conducted both in full-time format (students and state the examination committee during the GIA are in RUDN-UNIVERSITY), and with using distance learning technologies (DLT) available in Electronic Information and Educational Environment of RUDN University (EIOS). The procedure for conducting the FSC in full-time format or using (DOT) is regulated by the relevant local normative act of the RUDN University. GIA for EP VO "Pedagogy in Engineering" includes:
- state exam (SE);
- defense of the final qualifying work (FQW).

4. FSC PROGRAM
The state exam is held in several disciplines of EP HE, the results of mastering which are of decisive importance for the professional activities of graduates. The volume of the GE for EP HE is 3 credit units. The state examination is conducted in the form of a written examination. To prepare students for passing the GE, the head of the EP VO (no later than one calendar month before the start of the GIA) is obliged to familiarize students graduation course with this GIA program, an exhaustive list theoretical and practical issues included in the GE, as well as with the procedure for each of each of the stages of the GE and the methodology for evaluating its results (with evaluation materials). Before the GCSE, students are required to be consulted on issues and tasks included in the GE program (pre-examination consultation).

The procedure for the written examination is as follows:
the main part of the state examination is conducted in writing using examination cards. Each exam ticket contains three questions.
The questions included in the exam ticket are interdisciplinary in nature and are aimed at determining the level of theoretical and practical readiness of the graduate to solve professional problems defined by the Federal State Educational Standard of Higher Education in accordance with the type of professional activity that the educational program is focused on.
The total number of examination tickets is determined by the number of students admitted to the state examination. The student has 180 minutes to prepare a written response to the ticket. The maximum number of points that can be obtained for the written exam is 100 (40, 30 and 30 points respectively).

5. REQUIREMENTS FOR FQW AND PROCEDURE FOR ITS DEFENDING
The FQW is a work done by the student, demonstrating the level of preparedness of the graduate for independent professional activity. The list of topics of final qualifying works offered students for

implementation, is approved by the order of the head of the PMO, implementing the ES HE, and is brought to the attention of the program manager graduate students no later than 6 months before the start date of the GIA.

It is allowed to prepare and defend a FQW on a topic proposed by students (students) in the prescribed manner. A student who has passed the GE is allowed to defend the FQW.

Only a fully completed FQW, signed by graduate (graduates), who completed it, leader, consultant (with available), the head of the issuing BUP and PMO, which has passed the external review procedure (mandatory for Master's and Specialist programs) and checked for the amount of borrowing (in the Antiplagiat system). To the FQW, admitted to the defense, a review of the supervisor on the work of the graduate in the preparation of the FQW is mandatory attached.

In order to identify and timely eliminate deficiencies in the structure, the content and execution of the FQW, no later than 14 days before the date of its defense, a rehearsal of the defense by students of their work (pre-defense) is held in the presence of the head of the FQW and other teachers of the graduating BUP. The defense of the WRC is held at an open meeting of the state Examination Commission (SEC).The certification test is carried out in the form of an oral report of students with mandatory multimedia (graphic) presentation reflecting the main WRC content. At the end of the report, the defenders give oral answers to questions arising from the members of the SEC on the subject, structure, content or design of the WRC and the profile of the OP VO. The report and / or answers to questions from members of the SEC can be foreign language. Stages of WRC implementation, requirements for the structure, volume, content and registration, as well as a list of mandatory and recommended documents, presented for defense are indicated in the relevant guidelines. Evaluation of the results of the defense of the WRC is carried out in accordance with the methodology, set out in the assessment materials presented in the Appendix to this GIA program.

6.Material and technical support of GIA

Resources of the information and telecommunications network "Internet":
1. EBS of RUDN University and third-party EBS to which university students have access on the basis of concluded agreements:
- RUDN University Electronic Library System - RUDN University Library System http://lib.rudn.ru/MegaPro/Web
- EBS "University Library Online" http://www.biblioclub.ru
- EBS Yurayt http://www.biblio-online.ru
- EBS "Student Consultant" www.studentlibrary.ru
- EBS "Doe" http://e.lanbook.com/
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/
- SCOPUS abstract database http://www.elsevierscience.ru/products/scopus/

Software:
1. Specialized software for conducting the test part of the state exam:
- …TestStudio…………
and independent work of students - room 350 Ordzhonikidze, 3:
- Windows 7 (Microsoft Subscription) Enrollment for Education Solutions № 86626883 от 01.04.2018 г.);
- Microsoft Office 2007 (Microsoft Subscription) Enrollment for Education Solutions № 86626883 от 01.04.2018 г.);
- Windows XP (Microsoft Subscription) Enrollment for Education Solutions № 86626883 от 01.04.2018 г.);
- Microsoft Office 2003 (Microsoft Subscription) Enrollment for Education Solutions № 86626883 от 01.04.2018 г.);

- Borland Developer Studio 2006 (License Certificate Number: 33080, 33081, 33082) - MATLAB R2008b (361405 2008 г.);
- Notepad++ (free application) - Acrobat Reader DC (free application).

Methodological materials for independent work of students in the process of preparing Master thesis research paper for defense:

To prepare for the state exam and defend the Master thesis research paper, students use the premises for independent work.

To conduct the test part of the state exam, an educational classroom is required, equipped with workstations with personal computers (at least 12), equipped with the necessary software and a connection to the Internet.

To conduct the main part of the state examination and / or defense of the Master thesis research paper, a room with a capacity of 12 or more people is required, in which workplaces are equipped for all members of the State Examination Commission, with the ability to listen to reports, view public presentations of speakers, keep records and minutes, there are places for listeners wishing to attend the MThRP defense procedure. The necessary equipment of the premises includes:

- equipment for public presentations of FQP results, including a multimedia screen, a projector, and audio equipment.
- a board for illustrating answers to questions;
- tablets / stands of at least A1 format (if necessary), for placing the graphic part of the WRC on them.

The student can notify the issuing department of his wishes for additional material and technical equipment (if necessary) of the audience assigned to defend the MThRP with a written statement no later than a week before the defense procedure.

The program has been drawn up in accordance with the requirements of the OS VO RUDN.

Educational designer:

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