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Информация о владельце: Federal State Autonomous Educational Institution of Higher Education  
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"Peoples' Friendship University of Russia"  
**Faculty of Economics**

## **WORK PROGRAM OF THE DISCIPLINE**

### **METHODOLOGY OF SCIENTIFIC RESEARCH (part 1 and part 2)**

**Recommended for the direction of training of personnel of the highest qualification  
(graduate school)**

#### **5.2 Economics**

##### **Scientific specialties:**

##### **5.2.3 Regional and sectoral economics,**

##### **5.2.4 Finance,**

##### **5.2.5 World Economics**

## 1. Purpose and objectives of the discipline:

Course purpose: to form the listener's general idea of the subject of the philosophy of science, to outline the main range of problems of the subject in the logic of its historical development and to give students practical tools for finding and attracting additional funding in the framework of scientific activity.

Course objectives:

1. To form the listener's general idea of the subject and outline the range of problems of the philosophy of sciences;
2. Provide a general overview of the development of the ideas of the philosophy of science in the logic of their historical development;
3. To form the listener's general ideas about the characteristics and features of the natural and human sciences, their similarities and differences;
4. Give a general idea of the scientific research apparatus, scientific methodology and its features;
5. To carry out a brief digression into the logic of the development of scientific knowledge;
6. To form the listener's idea of the principles of organization of scientific activity, including in a team;
7. Consider the forms and sources of funding for scientific activities;
8. To form the listener's ideas about the effective mechanism of communications in the scientific community;
9. Consider the technology for compiling scientific applications;
10. Consider questions of scientific ethics;
11. Give an idea of the main approaches to performance evaluation.

## 2. The place of discipline in the structure of EP HE:

The discipline "Methodology of scientific research (parts 1 and 2)" refers to the variable part of block 2 of the curriculum (Educational component).

Table No. 1 shows the previous and subsequent disciplines aimed at the formation of discipline competencies in accordance with the competency matrix of the EP HE.

Table No. 1

### Previous and subsequent disciplines aimed at the formation of competencies

No	Code and name of competence	Previous disciplines	Subsequent disciplines (groups of disciplines)
Universal competencies			
1	UK-1 - the ability to critically analyze and evaluate modern scientific achievements, generate new ideas in solving research and practical problems, including in interdisciplinary areas	History and philosophy of science	Research practice Research work GIA
2	UK-2 - the ability to design and carry out complex research, including interdisciplinary, on basis systemic worldview using knowledge in the field of history and philosophy of science	History and philosophy of science	GIA

3	UK-3 - willingness to participate in the work of Russian and international research teams to solve scientific and scientific and educational problems	-	Research practice, Scientific research, Disciplines in preparation for the GIA
4	<p>the ability to analyze the directions and stages of development of economic thought in relation to the socio-economic conditions of the relevant periods and the characteristics of various countries and peoples (PC -1.3);</p> <p>the ability to study the state, develop and put into practice methodological tools for improving managerial relations that arise in the process of formation, development (stabilization) and destruction of economic systems (PC 2.3);</p> <p>the ability to develop scientific ideas about the finances of the state, corporations and enterprises; on the relationship and interdependence that arise in the process of functioning and interaction of various parts of the financial system; the structure of the mechanism of financial interaction between state, public and corporate finance; financial flows and circulation of capital; structural elements of the monetary system; the movement of money flows in economics; objective regularities in the formation of the system of monetary and credit relations at the micro and macro levels (PC-3.3);</p> <p>the ability to develop scientific ideas about the theory and history of the development of the methodology and organization of</p>	-	Profile disciplines, English language, Russian language, Research practice, Scientific research

	<p>accounting, economic analysis of financial and economic activities, control, audit and statistics, methods of accounting, analysis, audit, control and forecasting both single factors of economic activity and mass socio-economic phenomena, methods of risk assessment and decision-making under conditions of uncertainty, the study of patterns in specific conditions of place and time (PC-4.3);</p> <p>the ability to develop scientific ideas about production, trade, monetary and financial, social, scientific, technical, environmental and other aspects of world economic processes and the subjects of these processes - transnational corporations, state structures parts, international governmental and non-governmental organizations that ensure the functioning of the world economy as an integral system (PC-5.3)</p>		
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### 3. Requirements for the results of mastering the discipline:

The process of studying the discipline is aimed at the formation of the following competencies:

- the ability to critically analyze and evaluate modern scientific achievements, generate new ideas in solving research and practical problems, including in interdisciplinary areas (UK-1);
- the ability to design and carry out complex research, including interdisciplinary ones, based on a systemic worldview using knowledge in the field of the history and philosophy of science (UK-2);
- willingness to participate in the work of Russian and international research teams to solve scientific and scientific-educational problems (UK-3);
- the ability to analyze the directions and stages of development of economic thought in relation to the socio-economic conditions of the relevant periods and the characteristics of various countries and peoples (PC -1.3);
- the ability to study the state, develop and put into practice methodological tools for improving managerial relations that arise in the process of formation, development (stabilization) and destruction of economic systems (PC 2.3);
- the ability to develop scientific ideas about the finances of the state, corporations and enterprises; on the relationship and interdependence that arise in the process of functioning and interaction

of various parts of the financial system; the structure of the mechanism of financial interaction between state, public and corporate finance; financial flows and circulation of capital; structural elements of the monetary system; the movement of cash flows in the economy; objective regularities in the formation of the system of monetary relations at the micro and macro levels (PC-3.3);

- the ability to develop scientific ideas about the theory and history of the development of the methodology and organization of accounting, economic analysis of financial and economic activities, control, audit and statistics, methods of accounting, analysis, audit, control and forecasting of both single factors of economic activity and mass socio-economic phenomena, methods of risk assessment and decision-making in conditions of uncertainty, the study of patterns in specific conditions of place and time (PC-4.3);

- the ability to develop scientific ideas about production, trade, monetary, social, scientific, technical, environmental and other aspects of world economic processes and the subjects of these processes - transnational corporations, state structures, international governmental and non-governmental organizations that provide functioning of the world economy as an integral system (PC-5.3).

As a result of studying the discipline, the graduate student must:

**Know:**

processes of systematization, structuring, grouping, which allow one to navigate through the arrays of information in information systems and official resources;

the possibility of financial analysis in the system of evaluation and forecasting of the activity of an economic entity;

stages of implementation of the research program in relation to works on economic topics;

**Be able to:**

use methodological approaches for scientific research in economics and finance;

form the information base of financial analysis and choose the most effective methods and methods of analysis;

on the basis of financial statements, assess the effectiveness of activities and offer recommendations for its improvement;

evaluate the level of investment activity;

present scientific achievements in various formats

**Own:**

the skills of formulating a scientific hypothesis of one's own scientific research, consistently applying such tools as the study of scientific laws and patterns, using inference, scientific judgment;

skills in using and applying methods for conducting one's own research, skills in choosing a relevant methodology that allows solving the tasks of a particular scientific research and confirming or refuting the formulated hypothesis;

skills in analyzing terms and formulating definitions;

the content of methods for the formation of empirical knowledge and use them in their research;

the skills of choosing a relevant forecasting method in accordance with the chosen object of study;

main theoretical research methods in economics and finance

**4. Volume of discipline and types of educational work**

The total complexity of the discipline is 1 credit.

1. For full-time education

Type of study work	Total hours	Semesters			
		1	2	3	4
<b>Classroom activities (total)</b>	18	-	18	-	-
Including:	-	-	-	-	
Lectures	12	-	12	-	
Practical exercises	6	-	6	-	
Seminars	-	-	-	-	

Laboratory work	-	-	-	-	
<b>Independent work (total)</b>	<b>18</b>	<b>-</b>	<b>18</b>	<b>-</b>	
Including:	-	-	-	-	
Course project	-	-	-	-	
Settlement and graphic works	-	-	-	-	
abstract	-	-	-	-	
<i>Other types of independent work</i>		-		-	
Mastering the recommended literature, preparing for classes		-		-	
Type of intermediate certification (test, exam)	18	-	18	-	
General labor intensity	36 hours. 1 credit	36	-	36	-
		-	-	-	

## 2. For part-time education

Type of study work	Total hours	Semesters			
		1	2	3	4
<b>Classroom activities (total)</b>	<b>18</b>	<b>-</b>	<b>18</b>	<b>-</b>	<b>-</b>
Including:	-	-	-	-	
Lectures	12	-	12	-	
Practical exercises	6	-	6	-	
Seminars	-	-	-	-	
Laboratory work	-	-	-	-	
<b>Independent work (total)</b>	<b>18</b>	<b>-</b>	<b>18</b>	<b>-</b>	
Including:	-	-	-	-	
Course project	-	-	-	-	
Settlement and graphic works	-	-	-	-	
abstract	-	-	-	-	
<i>Other types of independent work</i>		-		-	
Mastering the recommended literature, preparing for classes		-		-	
Type of intermediate certification (test, exam)	18	-	18	-	
General labor intensity	36 hours. 1 credit	36	-	36	-
		-	-	-	

## 5. The content of the discipline

### 5.1. The content of the sections of the discipline

№	Name of the discipline section	Contents of the section (topic)
Part 1		

1.	<p>Essence and features of scientific activity</p> <p>Methodology and methods in economics and finance</p> <p>Scientific classifications and classifiers</p> <p>Specifics of methodology in economics and finance</p>	<p>understanding of the basic categories of scientific research</p> <p>the essence of methodology and the difference between methodology and research methods</p> <p>application in scientific research of scientific classifications and classifiers</p> <p>mastering the specifics of the applied methodology in economics and finance</p>
2.	<p>Categories, terms, definitions and their application in scientific research</p> <p>Empirical research methods in economics and finance</p> <p>Forecasting methods in economics and finance</p>	<p>application of categories, terms and definitions in scientific research</p> <p>study of the methodology for analyzing the content of terms</p> <p>study of the content of empirical knowledge and methods of their formation</p> <p>study of the content of empirical knowledge and methods of their formation</p> <p>study of forecasting methods used in economics and finance</p>
3.	<p>Theoretical research methods in economics and finance</p> <p>Investment and financial analysis. Essence and functions of financial analysis</p> <p>Investment and financial analysis. Information base of financial analysis</p>	<p>consideration of the main theoretical methods that are used in the framework of scientific research</p> <p>consideration of the main functions of financial analysis</p> <p>consideration of the analytical capabilities of financial information, the main requirements for financial statements, types of financial statements and the main methods of analysis of financial statements</p>
4.	<p>Investment and financial analysis. Analysis of financial results and performance efficiency</p>	<p>consideration of the main indicators characterizing the efficiency of the company</p>
5.	<p>Investment and financial analysis. Assessment of the capital structure and solvency</p>	<p>consideration of the main indicators characterizing the financial condition of the enterprise</p>
6.	<p>Investment and financial analysis. Indicators of investment analysis</p>	<p>consideration of the main indicators used in the investment analysis</p>
7.	<p>Approbation of the results of scientific research</p>	<p>consideration of the main ways that can be used to bring the results of your dissertation research to the scientific community</p>

8.	Cycles of scientific activity	consideration of the concept of "scientific cycle" in economics
9.	Planning of scientific research. Preparatory stage	consideration of the successive stages of the implementation of the research program and dwell in more detail on the first stage
10.	Planning of scientific research. Conducting theoretical and empirical research. Work on the manuscript and its design Implementation of the results of scientific research	conducting theoretical and empirical research, work on the manuscript and its design, implementation of the results of scientific research
11.	Registration of scientific results	consideration of the rules for the presentation of scientific results
12.	Assessment of the reliability of the results of scientific research	consideration of tools for assessing the reliability of the results of scientific research
Part 2		
1	Research infrastructure Features of scientific teams State and federal programs	consideration of the foundations of the existing infrastructure of scientific activity study of the specifics of the formation of scientific teams study of implemented and available state forms of support, and programs that provide an opportunity to receive funding for the organization and conduct of scientific research
2	Basic approaches to research activities Fundamentals of R&D funding Scientific funds Grant Application Preparation Work with a single database on research and development work EGASU R&D	consideration of the basic concepts related to the financing of scientific activities consideration of the main sources from which financing of scientific activities can be carried out, their features consideration of the most popular scientific foundations in the economic sphere, including the Russian Science Foundation review of basic concepts related to applying for a grant consideration of the basis for working with a unified database on research and development work EGISSU R&D
3	Communications in the scientific community Technology for compiling scientific applications	specifics of scientific communication specificity and content, and the formation of interdisciplinary scientific applications
4	Rules in the field of international and domestic professional conduct in the creation and implementation of scientific achievements	analysis of the main concepts of Russian legislation and international rules in the framework of the Recommendations of the Council of Scientific Editors in the creation and implementation of scientific achievements



5	Models of participation in the creation of publications, a number of inappropriate types of authorship and rules in the area of responsibility of authors in the framework of the Recommendations of the Board of Scientific Editors	consideration of the model of participation in the creation of publications, a number of inappropriate types of authorship and rules in the area of responsibility of authors within the Recommendations of the Council of Scientific Editors
6	Declaration of the Association of Scientific Editors and Publishers (ANRI) "Ethical principles of scientific publications"	consideration of the main provisions of the Declaration "Ethical Principles of Scientific Publications", developed by the Association of Scientific Editors and Publishers
7	Research performance indicators	study of the main international platforms for the results of scientific activity
8	Scientometric indicators	consideration of indexes of publication activity of authors or organizations
9	Modern development trends national citation index and national research and development performance evaluation system	consideration of modern development trends national citation index and national system for evaluating the effectiveness of scientific research and development

## 5.2. Sections of disciplines and types of classes

### 1. For full-time education

№	Name of the discipline section	Lectures	Practical exercises	Laboratory work	Seminars	independent work	total hours
<b>Part 1</b>							
1.	Essence and features of scientific activity Methodology and methods in economics and finance Scientific classifications and classifiers Specifics of methodology in economics and finance	1	1			1	3
2.	Categories, terms, definitions and their application in scientific research	1	1			1	3

	Empirical research methods in economics and finance Forecasting methods in economics and finance						
3.	Theoretical research methods in economics and finance Investment and financial analysis. Essence and functions of financial analysis Investment and financial analysis. Information base of financial analysis	1	1			1	3
4.	Investment and financial analysis. Analysis of financial results and performance efficiency	1	1			1	3
5.	Investment and financial analysis. Assessment of the capital structure and solvency	1	1			1	3
6.	Investment and financial analysis. Indicators of investment analysis	1	1			1	3
7.	Approbation of the results of scientific research	1	1			1	3
8.	Cycles of scientific activity	1	1			1	3
9.	Planning of scientific research. Preparatory stage	1	1			1	3
10.	Planning of scientific research. Conducting theoretical and empirical research. Work on the manuscript and its design Implementation of the results of scientific research	1	1			1	3
11.	Registration of scientific results	1	1			1	3
12.	Assessment of the reliability of the results of scientific research	1	1			1	3
<b>Part 2</b>							
1.	Research infrastructure Features of scientific teams State and federal programs	1	1			2	4

2.	Basic approaches to research activities Fundamentals of R&D funding Scientific funds Grant Application Preparation Work with a single database on research and development work EGASU R&D	1	1			2	4
3.	Communications in the scientific community Technology for compiling scientific applications	1	1			2	4
4.	Rules in the field of international and domestic professional conduct in the creation and implementation of scientific achievements	1	1			2	4
5.	Models of participation in the creation of publications, a number of inappropriate types of authorship and rules in the area of responsibility of authors in the framework of the Recommendations of the Board of Scientific Editors	1	1			2	4
6.	Declaration of the Association of Scientific Editors and Publishers (ANRI) "Ethical principles of scientific publications"	1	1			2	4
7.	Research performance indicators	1	1			2	4
8.	Scientometric indicators	1	1			2	4
9.	Modern development trends national citation index and national research and development performance evaluation system	1	1			2	4

2. For part-time education

№	Name of the discipline section	Lectures	Practical exercises	Laboratory work	Seminars	independent work	total hours
Part 1							
13.	Essence and features of scientific activity Methodology and methods in economics and finance Scientific classifications and classifiers Specifics of methodology in economics and finance	1	1			1	3
14.	Categories, terms, definitions and their application in scientific research Empirical research methods in economics and finance Forecasting methods in economics and finance	1	1			1	3
15.	Theoretical research methods in economics and finance Investment and financial analysis. Essence and functions of financial analysis Investment and financial analysis. Information base of financial analysis	1	1			1	3
16.	Investment and financial analysis. Analysis of financial results and performance efficiency	1	1			1	3
17.	Investment and financial analysis. Assessment of the capital structure and solvency	1	1			1	3
18.	Investment and financial analysis. Indicators of investment analysis	1	1			1	3
19.	Approbation of the results of scientific research	1	1			1	3
20.	Cycles of scientific activity	1	1			1	3
21.	Planning of scientific research. Preparatory stage	1	1			1	3

22.	Planning of scientific research. Conducting theoretical and empirical research. Work on the manuscript and its design Implementation of the results of scientific research	1	1			1	3
23.	Registration of scientific results	1	1			1	3
24.	Assessment of the reliability of the results of scientific research	1	1			1	3
Part 2							
10.	Research infrastructure Features of scientific teams State and federal programs	1	1			2	4
11.	Basic approaches to research activities Fundamentals of R&D funding Scientific funds Grant Application Preparation Work with a single database on research and development work EGASU R&D	1	1			2	4
12.	Communications in the scientific community Technology for compiling scientific applications	1	1			2	4
13.	Rules in the field of international and domestic professional conduct in the creation and implementation of scientific achievements	1	1			2	4
14.	Models of participation in the creation of publications, a number of inappropriate types of authorship and rules in the area of responsibility of authors in the framework of the Recommendations of the Board of Scientific Editors	1	1			2	4
15.	Declaration of the Association of Scientific	1	1			2	4

	Editors and Publishers (ANRI) "Ethical principles of scientific publications"						
16.	Research performance indicators	1	1			2	4
17.	Scientometric indicators	1	1			2	4
18.	Modern development trends national citation index and national research and development performance evaluation system	1	1			2	4

## 6. Laboratory workshop. Not provided.

## 7. Practical exercises.

### 1) For full-time / part-time education

№	Name of the discipline section	Topics of practical classes	Labor capacity (hour.)
Part 1			
1.	Essence and features of scientific activity Methodology and methods in economics and finance Scientific classifications and classifiers Specifics of methodology in economics and finance	understanding of the basic categories of scientific research the essence of methodology and the difference between methodology and research methods application in scientific research of scientific classifications and classifiers mastering the specifics of the applied methodology in economics and finance	1
2.	Categories, terms, definitions and their application in scientific research Empirical research methods in economics and finance Forecasting methods in economics and finance	application of categories, terms and definitions in scientific research study of the methodology for analyzing the content of terms study of the content of empirical knowledge and methods of their formation study of the content of empirical knowledge and methods of their formation study of forecasting methods used in economics and finance	1
3.	Theoretical research methods in economics and finance Investment and financial analysis. Essence and functions of financial analysis Investment and financial analysis. Information base of financial analysis	consideration of the main theoretical methods that are used in the framework of scientific research consideration of the main functions of financial analysis consideration of the analytical capabilities of financial information, the main require-	1

		ments for financial statements, types of financial statements and the main methods of analysis of financial statements	
4.	Investment and financial analysis. Analysis of financial results and performance efficiency	consideration of the main indicators characterizing the efficiency of the company	1
5.	Investment and financial analysis. Assessment of the capital structure and solvency	consideration of the main indicators characterizing the financial condition of the enterprise	1
6.	Investment and financial analysis. Indicators of investment analysis	consideration of the main indicators used in the investment analysis	1
7.	Approbation of the results of scientific research	consideration of the main ways that can be used to bring the results of your dissertation research to the scientific community	1
8.	Cycles of scientific activity	consideration of the concept of "scientific cycle" in economics	1
9.	Planning of scientific research. Preparatory stage	consideration of the successive stages of the implementation of the research program and dwell in more detail on the first stage	1
10.	Planning of scientific research. Conducting theoretical and empirical research. Work on the manuscript and its design Implementation of the results of scientific research	conducting theoretical and empirical research, work on the manuscript and its design, implementation of the results of scientific research	1
11.	Registration of scientific results	consideration of the rules for the presentation of scientific results	1
12.	Assessment of the reliability of the results of scientific research	consideration of tools for assessing the reliability of the results of scientific research	1
Part 2			
1.	Research infrastructure Features of scientific teams State and federal programs	consideration of the foundations of the existing infrastructure of scientific activity study of the specifics of the formation of scientific teams study of implemented and available state forms of support, and programs that provide an opportunity to receive funding for the organization and conduct of scientific research	1
2.	Basic approaches to research activities Fundamentals of R&D funding Scientific funds Grant Application Preparation Work with a single database on research and development work EGASU R&D	consideration of the basic concepts related to the financing of scientific activities consideration of the main sources from which financing of scientific activities can be carried out, their features consideration of the most popular scientific foundations in the economic sphere, including the Russian Science Foundation review of basic concepts related to applying for a grant consideration of the basis for working with a unified database on research and development work EGISSU R&D	1

3.	Communications in the scientific community Technology for compiling scientific applications	specifics of scientific communication specificity and content, and the formation of interdisciplinary scientific applications	1
4.	Rules in the field of international and domestic professional conduct in the creation and implementation of scientific achievements	analysis of the main concepts of Russian legislation and international rules in the framework of the Recommendations of the Council of Scientific Editors in the creation and implementation of scientific achievements	1
5.	Models of participation in the creation of publications, a number of inappropriate types of authorship and rules in the area of responsibility of authors in the framework of the Recommendations of the Board of Scientific Editors	consideration of the model of participation in the creation of publications, a number of inappropriate types of authorship and rules in the area of responsibility of authors within the Recommendations of the Council of Scientific Editors	1
6.	Declaration of the Association of Scientific Editors and Publishers (ANRI) "Ethical principles of scientific publications"	consideration of the main provisions of the Declaration "Ethical Principles of Scientific Publications", developed by the Association of Scientific Editors and Publishers	1
7.	Research performance indicators	study of the main international platforms for the results of scientific activity	1
8.	Scientometric indicators	consideration of indexes of publication activity of authors or organizations	1
9.	Modern development trends national citation index and national research and development performance evaluation system	consideration of modern development trends national citation index and national system for evaluating the effectiveness of scientific research and development	1

### 8. Logistics support of discipline:

№	Name of the discipline (module), practice in accordance with the curriculum	Name of special* rooms and rooms for independent work	Equipment of special rooms and rooms for independent work	List of licensed software.

### 9. Information support of discipline

#### 10. Educational, methodological and information support of the discipline:

A course of lectures on the discipline "Methodology of scientific research (parts 1 and 2)".  
<https://esystem.rudn.ru/>

\* - all educational and methodological materials for independent work of students are placed in accordance with the current procedure on the page of the discipline in TEIS

#### 11. Guidelines for students on mastering the discipline:

#### 12. Fund of assessment tools for conducting intermediate certification of students in the discipline "Methodology of scientific research (part 1 and part 2)":



Materials for assessing the level of mastering the educational material of the discipline "Methodology of scientific research (parts 1 and 2)" (evaluation materials), including a list of competencies indicating the stages of their formation, a description of indicators and criteria for evaluating competencies at various stages of their formation, description of assessment scales, standard control tasks or other materials necessary to assess knowledge, skills, abilities and (or) experience, characterizing the stages of the formation of competencies in the process of mastering the educational program, methodological materials that determine the procedures for assessing knowledge, skills, abilities and (or) experience of activity, characterizing the stages of the formation of competencies, have been developed in full and are available to students on the discipline page in TEIS RUDN.

**Creator:**

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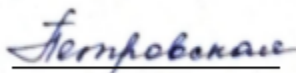
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