

Документ подписан
Информация о владельце:
ФИО: Ястребов Олег Александрович
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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)

Department of Innovation Management in Industries
(department realizing the PhD program)

COURSE SYLLABUS

Methodology of Scientific Research
(course title)

Scientific specialty:

2.9.9. Logistic transport systems
(scientific specialty code and title)

Course is carried out as part of the implementation of the postgraduate program:

Logistic transport systems
(PhD program title)

1. DISCIPLINE GOAL

The objective of mastering the discipline "Methodology of Scientific Research" is to obtain knowledge, skills and abilities in conducting research activities.

2. REQUIREMENTS FOR LEARNING OUTCOMES

As a result of mastering the discipline, the PhD student must

To know:

- methods of critical analysis and evaluation of modern scientific achievements, generation of new ideas in solving research problems;
- problems in the chosen field of scientific activity and the main ways to solve them;
- main sources and methods of searching for scientific information;

Be able to:

- analyze alternative options for solving research problems;
- to use the provisions and categories of the philosophy of science for the analysis and evaluation of various facts and phenomena;
- follow the norms accepted in scientific communication;
- find the most effective methods for solving problems in the chosen field of scientific activity;
- analyze, systematize and assimilate the best practices of scientific research;

Own:

- methods of solving research problems, including in interdisciplinary areas;
- methods of analysis of worldview and methodological problems arising in the solution of scientific problems;
- technologies for planning scientific activities;
- modern tools and technologies of research activities;
- skills in the preparation and implementation of a program of theoretical and experimental research.

3. WORKLOAD OF THE DISCIPLINE AND TYPES OF ACTIVITIES

The overall workload of the discipline "Methodology of Scientific Research" is 2 credits (72 academic hours).

Types of activities		Total ac. hrs.	Semesters
			2
<i>Classroom activities (total), including:</i>		18	18
including:			
Lectures (LC)		12	12
Practical lessons/Seminars (PC)		6	6
<i>Independent work (IW)</i>		18	18
<i>Intermediate certification (test with assessment/exam)</i>		36	36
Overall workload	ac. hrs.	72	72
	credits	2	2

4. DISCIPLINE CONTENTS

Name of the discipline section	Contents of the section (topics)	Type of Academic Work
Section 1. Methodological Foundations of Scientific Research	Topic 1.1. The Structure of Scientific Knowledge	LC, PC, IW
	Topic 1.2. Forms of organization of scientific knowledge	LC, PC, IW
	Topic 1.3. Sources and Conditions of Exploratory Search	LC, PC, IW
Section 2. Fundamentals of Scientific Research Organization	Topic 2.1. Definition of the object, subject, hypothesis, purpose and objectives of the research	LC, PC, IW
	Topic 2.2. Methodology of scientific research, research topic and its relevance	LC, PC, IW
	Topic 2.3. Statistical Methods and Formalization Tools	LC, PC, IW
Section 3. Logic in Research	Topic 3.1. Staged stage of research logic design	LC, PC, IW
	Topic 3.2. The actual research stage of the design of the research logic	LC, PC, IW
	Topic 3.3. Design and Implementation Stages of Researching Logic Design	LC, PC, IW
Section 4. Presentation of a scientific paper	Topic 4.1. Presentation of the results of the study	LC, PC, IW
	Topic 4.2. Report on the results of scientific work	LC, PC, IW

	Topic 4.3. Scientific Text: Characteristics, Types, Forms of Representation. Dissertation as a Specific Type of Scientific Text.	LC, PC, IW
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5. LOGISTICAL SUPPORT OF DISCIPLINE

Room Type	Room Equipment	Specialized educational / laboratory equipment, software and materials for mastering the discipline
Class for Seminars	Room for seminar-type classes, equipped with a set of specialized furniture, board (screen) and technical / multimedia gadgets	Not necessary
Self-Work Class	Room for self-working (can be used for lecture and seminars activities), equipped with a set of specialized furniture, board (screen) and technical / multimedia gadgets and computers with an access to EIPES	Not necessary

6. EDUCATIONAL, METHODOLOGICAL AND INFORMATIONAL SUPPORT OF THE DISCIPLINE

Main readings:

- 1) Дрещинский В.А. Методология научных исследований: учебник / М.: Юрайт. 2019. 274 с. https://mx3.urait.ru/uploads/pdf_review/28782493-AE21-4C9D-9B1C-B4D369C3C0C0.pdf.
- 2) Дрещинский В.А. Основы научных исследований: учебник для СПО / М.: Юрайт. 2019. 274 с. <https://static.my-shop.ru/product/pdf/338/3377381.pdf>.
- 3) Рузавин Г.И. Методы научного исследования / М.: Мысль, 1974. <http://nashaucheba.ru/vl6914/>
- 4) Комлацкий В.И. [и др.] Планирование и организация научных исследований: учебник / М.: Феникс. 2014. 208 с. <https://www.studentlibrary.ru/book/ISBN9785222218402.html>.
- 5) Новиков А.М. Научно-экспериментальная работа в образовательном учреждении / М.: Ассоциация Профессиональное образование, 1996. <http://anovikov.ru/books/nauch.pdf>.

Additional readings:

- 6) Сохор А.М. Логическая структура учебного материала / М. 1974. <https://vandex.ru/search/?text=Сохор%20А.М.%20Логическая%20структура%20учеб.>
- 7) Аристер Н.И., Загузов Н.И. Процедура подготовки и защиты диссертаций / М.: АОЗТ "ИКАР". 1995. <http://biblioclub.ru/index.php?praye=book&id=469595>.
- 8) Бурдин К.С., Веселов П.В. Как оформить научную работу / М.: Высшая школа. 1973. <https://b-ok.org/book/3021321/c03eab>.
- 9) Кузин Ф.А. Диссертация: Методика написания. Правила оформления. Порядок защиты. Практическое пособие для докторантов, аспирантов и магистрантов. 2-е изд., доп. М.: Ось-89, 2001. <http://nashaucheba.ru/vv46189/>.
- 10) Цыпин Г.М. Работа над диссертацией. Навигатор по "трассе" научного исследования / М.: Юрайт. 2019. 36 с. <https://avidreaders.ru/book/rabota-nad-dissertaciey-navigator-po-trasse.html>.

Internet sources:

ELS RUDN University and third party EBS, to which university students have access based signed contracts:

- RUDN Electronic Library System, <http://lib.rudn.ru/MegaPro/Web>;
- ELS University Library Online, <http://www.biblioclub.ru>;
- EBS Urayt <http://www.biblio-online.ru>;
- ELS Student Consultant, <http://www.studentlibrary.ru>;
- EBS Lan <http://e.lanbook.com>;
- EBS Trinity Bridge <http://www.trmost.ru>.

Databases and search engines:

- Electronic fund of legal and normative-technical documentation, <http://docs.cntd.ru>;
- Yandex search system <https://www.yandex.ru>;
- Google search system <https://www.google.com>;
- Reference database Scopus <http://www.elsevierscience.ru/products/scopus>.

Educational and methodological materials for students' self-work studying the discipline:
A course of lectures on the discipline "Methodology of Scientific Research".

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

Evaluation materials and a point-rating system for assessing the mastery of the discipline are presented in the appendix to this work program of the discipline.

DEVELOPER:

Associate professor

L.O. Andreeva

HEAD OF THE DEPARTMENT

O.E. Samusenko