

Документ подписан простой электронной подписью
Информация о владельце:
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**Federal State Autonomous Educational Institution for Higher Education
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA
(RUDN University)
Institute of Medicine
(Educational Division)**

COURSE SYLLABUS

Methodology of Scientific Research
(Course title)

1.5.7. Genetics
(Specialisation)

Discipline is carried out within the implementation of the PhD Programme:

1.5.7. Genetics: Molecular Basis of Human Hereditary Diseases

1. COURSE AIM

To train highly qualified researchers able to prepare PhD thesis in Biology or Medicine.

2. REQUIREMENTS TO LEARNING OUTCOMES

In consequence of studying the discipline, a postgraduate is due to:

Know:

- research methods;
- requirements to the presentation of the scientific research results;
- principles of research result analysis;
- modern technologies of information search and processing.

Be able to:

- carry out studies in the field of Genetics, important for Biology and Medicine;
- analyze alternative options for problem solving;
- analyze and summarize the results of scientific research, present them as scientific publications and reports;
- systematize scientific studies in the field of Biology and Medicine.

Have the skills in:

- independent research;
- the use of modern software for statistical data processing;
- public speaking;
- writing scientific articles.

3. COURSE WORKLOAD AND TYPES OF ACADEMIC ACTIVITIES

The course total workload is equal to 1 credit.

Table 3.1. Types of academic activities during the period of the HE programme mastering

<i>Types of academic activities</i>	Totally, hours	Semester(s)	
		2	
<i>Contact academic hours</i>	18	18	
Including:			
Lectures (LC)	12	12	
Lab work (LW)			
Seminars (workshops/tutorials, W)	6	6	
<i>Self-study, academic hours</i>	18	18	

<i>Types of academic activities</i>		Totally, hours	Semester(s)	
			2	
<i>Evaluation and assessment (exam or pass/fail grading)</i>		36	36	
Course workload	academic hours	72	72	
	credits	2	2	

4. COURSE MODULES AND CONTENTS

Table 4.1. Course contents and types of academic activities

Course Modules	Contents (Topics)	Types of academic activities
Module 1. methodological principles of scientific cognition	Topic 1.1. Science as a specific form of activity.	LC
	Topic 1.2. Scientific method	LC
Module 2. Ethical aspects of scientific research	Topic 2.1. Biomedical Research. Ethical aspects of scientific research.	LC
Module 3. Dissertation Research Methodology	Topic 3.1. Dissertation research structure	LC
	Topic 3.2. Dissertation research stages	LC
	Topic 3.3. Requirements for the structure, content and design of the dissertation. Defense of the thesis.	W
Module 4. Presentation of scientific research	Topic 4.1. Presentation of research findings	W
	Topic 4.2. Principles of scientific writing	W

5. CLASSROOM EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

Table 5.1. Classroom Equipment and Technology Support Requirements

Classroom for Academic Activity Type	Classroom Equipment	Specialized Equipment
Specialized classroom	Lecture/Seminars/ Lab Classroom, equipped with a set of specialized furniture (328)	A set of specialized furniture; whiteboard; a set of devices includes multimedia projector, laptop, projection screen, stable wireless Internet connection. Software: Microsoft Windows, MS

Classroom for Academic Activity Type	Classroom Equipment	Specialized Equipment
		Office / Office 365, MS Teams, Chrome (latest stable release), Microscopes
Self-studies classroom	Self-studies classroom, equipped with a set of specialized furniture (аудитория 342)	A set of specialized furniture; whiteboard; a set of devices includes multimedia projector, laptop, projection screen, stable wireless Internet connection. Software: Microsoft Windows, MS Office / Office 365, MS Teams, Chrome (latest stable release)

6. RECOMMENDED SOURCES FOR COURSE STUDIES

Reading:

1. Методология научного творчества = Methodology of Scientific Resefrch : учебно-методическое пособие / Д.О. Капралова. - Книга на английском языке; электронные текстовые данные. - М. : РУДН, 2018. - 60 с. - ISBN 978-5-209-08837-0 : 106.80
http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=470891&idb=0
2. Methodology of Scientific Research = Методология научного исследования : education and Methodical Complex / Т.Б. Иванова. - Книга на английском языке; электронные текстовые данные. - М. : PFUR, 2013. - 117 p. - ISBN 978-5-209-05048-3 : 167.79.
http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=404340&idb=0

Internet sources:

1. Electronic libraries with access for RUDN students:

- RUDN online library <http://lib.rudn.ru/MegaPro/Web>
- Royal Society of Chemistry <http://pubs.rsc.org/>
- Scientific electronic library: - <http://elibrary.ru>
- Nature - <http://www.nature.com/siteindex/index.html>
- OxfordJournals - <https://academic.oup.com/journals/>
- <http://www.biblioclub.ru>
- <http://www.biblio-online.ru>
- www.studentlibrary.ru
- <http://e.lanbook.com/>

1. Databases and search engines:

- National Center for Biotechnology Information (NCBI) - www.ncbi.nlm.nih.gov

- ScienceDirect - <http://www.sciencedirect.com>
- Google Academy - <http://scholar.google.ru/>
- SCOPUS <http://www.scopus.com/>

Learning toolkits for self- studies in the RUDN LMS TUIS:

Methodological recommendations on discipline study.

8. ASSESSMENT AND EVALUATION TOOLKIT

Assessment and evaluation toolkit as well as the grading system are presented in the Supplement to the Course Syllabus.

DEVELOPERS:

Associate professor,
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