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

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

Department of Construction Technology and Structural Materials
(department realizing the PhD program)

SCIENTIFIC RESEARCH PLAN

Scientific specialty:

2.1.1. Building designs, buildings and constructions
2.1.6. Hydrotechnical structures, hydraulics and engineering hydrology
2.1.7. Technology and management in construction
2.1.9. Structural mechanics
(scientific speciality code and title)

The course instruction is implemented within the PhD programmes:

Building designs, buildings and constructions
Hydrotechnical structures, hydraulics and engineering hydrology
Technology and management in construction
Structural mechanics
(PhD program title)

2024 г.

1. SCIENTIFIC RESEARCH GOAL

The purpose of carrying out scientific research (carrying out scientific activities) is to prepare a dissertation for the scientific degree of Candidate of Sciences for defense.

- a list of planned results based on the results of scientific research;
- volume of scientific research;
- an approximate plan for the implementation of scientific research;
- plan for the preparation of the thesis and publications, which set out the main scientific results of the dissertation;
- a list of stages in the development of the scientific component of the postgraduate program, the distribution of these stages and the final certification of postgraduate students.

2. PLANNED RESULTS OF SCIENTIFIC RESEARCH

Solving a scientific problem that is important for the development of the relevant branch of science, or developing a new scientifically based technical, technological or other solution that is essential for the development of the country.

Preparation of a dissertation for defense includes the implementation of an individual plan of scientific activity, writing, design and submission of a dissertation for final certification.

The plan of scientific activity includes an approximate plan for the implementation of scientific research, a plan for preparing a dissertation and publications that set out the main scientific results of the dissertation, as well as a list of stages for mastering the scientific component of the postgraduate program, the distribution of these stages and the final certification of postgraduate students.

The plan of scientific activity of a particular student is approved in the individual plan of scientific activity of a postgraduate student, the requirements for which are established by the relevant local normative act of the RUDN University.

3. SCIENTIFIC RESEARCH WORKLOAD

The overall workload of the scientific research is 178 credits (6408 academic hours).

4. STAGES OF SCIENTIFIC RESEARCH

Stages	Stage content (types of activities)	Workload, acad. hours
First Year		
Research activity aimed at preparing for a thesis defense	Introduction	360
Publication Activity	Safety briefings	360
Intermediate certification	Conversation with the leader: drawing up a plan for scientific research	432
Second year		
Research activity aimed at preparing for a thesis defense	Statement of the purpose and objectives of the study	540
Publication Activity	Review and analysis of information on the research topic	540

Intermediate certification	Conducting theoretical and experimental research	648
Third year		
Research activity aimed at preparing for a thesis defense	Processing of experimental data, analysis of results	612
Publication Activity	Preparation of a report and scientific publication	612
Intermediate certification	Preparation of a report and scientific publication	648
Fourth year		
Research activity aimed at preparing for a thesis defense	Processing and registration of the results	540
Publication Activity	Processing and registration of the results	540
Intermediate certification	Processing and registration of the results	576
Total academic hours of scientific research:		6408

5. EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

1. Lecture rooms with multimedia projectors; laboratories with equipment and instruments for laboratory work.

2. Scientific laboratories equipped with appropriate equipment.

3. Computers for carrying out calculations and processing results and access to information systems.

6. SCIENTIFIC RESEARCH LOCATION AND TIMELINE

Scientific research can be carried out both in structural subdivisions of RUDN University or in organizations of Moscow (stationary), and at bases located outside of Moscow (exit).

Conducting scientific research on the basis of an external organization (outside RUDN University) is carried out on the basis of an appropriate agreement, which specifies the terms, place and conditions for performing scientific research in the base organization. The deadlines for the implementation of scientific research correspond to the period indicated in the calendar academic schedule of the postgraduate program.

Practice dates can be adjusted in coordination with the Department of Doctoral Studies of the RUDN University.

7. RESOURSES RECOMMENDED FOR SCIENTIFIC RESEARCH

Regulatory documents regulating the process of preparation and defense of dissertations:

Federal Law of August 23, 1996 No. 127-FZ «On Science and State Scientific and Technical Policy» — URL: http://pravo.gov.ru/proxy/ips/?docbody=&nd=102043112

Decree of the Government of the Russian Federation dated September 24, 2013 No. 842 «On the procedure for awarding academic degrees» — URL: http://pravo.gov.ru/proxy/ips/?docbody=&nd=102167993

GOST R 7.0.11-2011 System of standards for information, library and publishing. Dissertation and dissertation abstract. Structure and design rules.

Internet Resourses:

ELS RUDN University and third party EBS, to which university students have accessbased 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 scientific research:

1. Shklyar M.F. Fundamentals of scientific research. M.: Publishing and Trade Corporation "Dashkov and Co", 2012. - 244 p.

2. Fundamentals of scientific research: textbook. allowance / B.I. Gerasimov and others. - M .: FORUM, 2011. - 269 p.

3. Denisov S.L. How to draw up a dissertation and abstract: Method. allowance. – 2nd ed., revised. and additional - M.: GEOTAR-Media, 2005. - 85 p.

4. Kuzin F.A. Dissertation: Methodology of writing. Design rules. Order of protection: pract. manual for doctoral students, graduate students and masters / Kuzin F.A.; ed. Abramova V.A. -M.: Os-89, 2008. - 447 p.

5. Mareev S.N. Philosophy of Science. Textbook for graduate students and applicants. - From: Infra-M, 2015.

Guidelines for preparing dissertations and scientific publications.

8. ASSESSMENT TOOLKIT AND GRADING SYSTEM FOR EVALUATION OF PHD STUDENTS' COMPETENCES LEVELS AS SCIENTIFIC RESEARCH RESULTS

Based on the results of the stages of scientific research, the PhD student submits a detailed oral or written report to the supervisor or to a department meeting. The report includes information characterizing the content of the PhD student's work and reflecting the implementation of scientific research.

The report must include information:

- about the degree of readiness of the dissertation;
- on the preparation and publication of articles in journals included in the list of Higher Attestation Commission, Russian Science Citation Index, Scopus, Web of Science and others equated to them and/or approved by the Academic Council of RUDN University;
- on the participation of a PhD student in scientific and technical events on the topic of his research;
- on participation in the research work of the department (with participation);
- other.

During the interim certification period, the supervisor provides feedback on the quality, timeliness and success of the PhD student's stages of scientific activity.

The results of scientific research for every six months of study are determined by conducting an intermediate certification with grades «excellent», «good», «satisfactory», «unsatisfactory» and in the ECTS system (A, B, C, D, E) in accordance with the rating system.

DEVELOPERS:

Associate Professor A.S. Markovich

HEAD OF THE DEPARTMENT

Director of the department S.B. Yazyev