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Инженерная Академия

(наименование основного учебного подразделения (ОУП) – разработчика программы аспирантуры)

Департамент строительства

(наименование базового учебного подразделения (БУП)-разработчика программы аспирантуры)

## WORKING PROGRAM OF PRACTICE ПРОГРАММА ПРАКТИКИ

Practice in Obtaining Professional Skills and Professional Experience (Pedagogical practice)

(наименование практики)

## Научная специальность:

- 2.1.1. Building designs, buildings and constructions / Строительные конструкции, зданий и сооружения (англ.)
  - 2.1.9. Structural mechanics / Строительная механика (англ.)

(код и наименование научной специальности)

# Практическая подготовка обучающихся ведется в рамках реализации программы аспирантуры:

Building designs, buildings and constructions / Строительные конструкции, зданий и сооружения (англ.)

Structural mechanics / Строительная механика (англ.)

(наименование программы аспирантуры)

### 1. GOALS OF THE PRACTICE / ЦЕЛЬ ПРОВЕДЕНИЯ ПРАКТИКИ

The purpose of the <u>«Pedagogical practice»</u> is to improve the methodological and practical skills of conducting training sessions, including laboratory work and seminars (practical) classes.

The main tasks of pedagogical practice are:

- fostering a steady interest in the teaching profession, confidence in the correctness of its choice;
- development of systems of constructive skills for the organization, correction and control of the educational and educational process in the university;
- use, interpretation and improvement of the received theoretical and practical knowledge in the process of their application for the implementation of the pedagogical process, including in a foreign language;
- mastering the system of modern scientific knowledge in the field of pedagogy and psychology of higher education, as the basis of competent professional activity;
- preparation of methodological materials based on the results of the work performed with the wide use of modern information technologies;
- development of postgraduate students' need for self-education and selfimprovement of professional and pedagogical knowledge and skills:
  - development of ideas about the work of a modern educational institution;
- formation and development of research skills for the design and organization of innovative pedagogical activities,
- formation of the need for mastering psychological and pedagogical knowledge as personally significant;
- the formation of a creative approach and the use in practice of the skills and abilities of managing a team;
- formation of postgraduate students' professional skills necessary for the successful implementation of the educational process;
- formation, consolidation and approbation of knowledge and skills of graduate students and their readiness for independent professional activity.

# 2. REQUIREMENTS FOR THE RESULTS OF LEARNING ON THE RESULTS OF THE PRACTICE / ТРЕБОВАНИЯ К РЕЗУЛЬТАТАМ ОБУЧЕНИЯ ПО ИТОГАМ ПРОХОЖДЕНИЯ ПРАКТИКИ

<u>«Pedagogical practice»</u> is aimed at developing the following competencies among students:

- the ability to follow ethical standards in professional activity;
- readiness for teaching in the basic educational programs of higher education.
- readiness to teach training courses, disciplines (modules), conduct certain types of training sessions in Russian and foreign languages for higher education programs;
- the ability to organize educational, research and project activities of students in higher education programs.

### 3. VOLUME OF PRACTICE / ОБЪЕМ ПРАКТИКИ

The total labor intensity of <u>«Pedagogical practice»</u> is 5 credits (180 academic hours).

## 5. PRACTICE STRUCTURE AND CONTENT / СОДЕРЖАНИЕ ПРАКТИКИ

Table 5.1. Practice content\*

| Practice stages  | Types of work carried out by students  | Total, academic hours |
|--|--|-----------------------|
| Organizational and preparatory   | Receiving an individual assignment for practice from a supervisor  | 1                     |
|  | Safety briefing in the workplace (laboratory and / or production). Setting the goal and objectives of the practice. Review and analysis of information on assigned disciplines.                                  | 1                     |
| Main   | Conducting practical classes with students. The study of regulatory documents, the structure of the educational process, courses taught.   | 70                    |
|  | Attendance at teachers' classes; independent preparation of plans and abstracts of classes in academic disciplines; selection and analysis of basic and additional literature.                                   | 60                    |
|  | Participation in scientific and practical conferences, seminars and meetings of methodological sections; participation in the activities of the department for the development of work programs for disciplines. | 20                    |
|  | Ongoing control of the internship by the head  | 10                    |
| Preparing an internship report   |  | 9                     |
| Intermediate attestation (preparation for protection and protection of the report) |  | 9                     |
| _  | TOTAL:   | 180                   |

<sup>\* -</sup> the content of practice by sections and types of practical training is FULLY reflected in the student's report on practice.

# 6. MATERIAL AND TECHNICAL SUPPORT OF THE PRACTICE / МАТЕРИАЛЬНО-ТЕХНИЧЕСКОЕ ОБЕСПЕЧЕНИЕ ПРОВЕДЕНИЯ ПРАКТИКИ

Educational laboratory for laboratory and practical exercises - Laboratory of Building Materials and Building Structures, room. No. 24a. Combined testing machine C040N + C092-11 "MATESTA", Vibrating plates laboratory C282 MATEST and SMZH-539, Chamber-cabinet for normal hardening and wet storage KNT-72, Universal steaming chamber KUP-1, molds for concrete samples, concrete mixers-2 pcs., Concrete strength meter POS-50MG4, Vika devices, Aistova's device, Electronic moisture meter - MG4U, Ultrasonic flaw detector A1220 MONOLITH, Shaking table with a cone and ruler, etc. installations and testing devices.

Educational laboratory for laboratory and practical training - Laboratory of Soil Mechanics, No. 520a. Training and testing complex ASIS-1 "Automated test systems in construction", laboratory scales MWR-3000, drying cabinet, laboratory glassware, etc.

### 7. PRACTICE METHODS / СПОСОБЫ ПРОВЕДЕНИЯ ПРАКТИКИ

<u>«Pedagogical practice»</u> can be carried out both in the structural divisions of the RUDN University or in organizations in Moscow (stationary), and at bases located outside of Moscow (exit).

Conducting an internship on the basis of an external organization (outside the RUDN University) is carried out on the basis of an appropriate agreement, which specifies the terms, place and conditions for conducting an internship in the base organization.

The timing of the internship corresponds to the period specified in the calendar academic schedule of the postgraduate program. The timing of the internship can be adjusted upon agreement with the Department of Educational Policy and the Department for the organization of internships and employment of students at RUDN University.

# 8. EDUCATIONAL-METHODICAL AND INFORMATIONAL SUPPORT OF EDUCATIONAL PRACTICE / УЧЕБНО-МЕТОДИЧЕСКОЕ И ИНФОРМАЦИОННОЕ ОБЕСПЕЧЕНИЕ ПРАКТИКИ

### *Main literature:*

- 1. Banshchikova IA, Complex ANSYS: nonlinear strength analysis of structures [Electronic resource]: tutorial / Banshchikova IA. Novosibirsk: Publishing house of NSTU, 2015 .-- 94 p. ISBN 978-5-7782-2816-0
- 2. Moskalev NS, Metal structures [Electronic resource]: Textbook / NS. Moskalev, Ya.A. Pronosin. M.: Publishing house ASV, 2014 .-- 344 p. ISBN 978-5-93093-500-4 Access mode: http://www.studentlibrary.ru/book/ISBN9785930935004.html
- 3. Ibragimov AM, Welding of building metal structures [Electronic resource]: Textbook / Ibragimov AM, Parlashkevich V.S. M.: Publishing house ASV, 2015 .-- 176 p. ISBN 978-5-93093-891

### Additional literature:

- 1. Automated information systems in the economy / ed. M.V. Vasilyeva. Moscow: Student Science, 2012. Part 1. Collection of student works. 1064 p. (University science to help the student). ISBN 978-5-00046-053-5; Access mode: http://biblioclub.ru/index.php?page=book&id=225482
- 2. Fundamentals of scientific research and patenting: teaching aid / comp. V.A. Valkov, V.A. Golovatyuk, V.I. Kochergin, S.G. Shchukin. Novosibirsk: Novosibirsk State Agrarian University, 2013 .-- 228 p. Access mode: http://biblioclub.ru/index.php?page=book&id=230540
- 3. Sidorov VN, The finite element method in the design of structures. Theory, algorithm, examples of calculations in the SIMULIA Abaqus software package [Electronic resource]: Textbook / VN Sidorov, VV Vershinin. M.: Publishing house ASV, 2015 .-- 288 p. ISBN 978-5-4323-0090-4
- 4. Radin VP, The finite element method in dynamic problems of resistance of materials [Electronic resource] / Radin VP, Samogin Yu.N., Chirkov VP. M.: FIZMATLIT, 2013 .-- 316 p. ISBN 978-5-9221-1485-1

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:
  - Electronic library system RUDN EBS RUDN 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/

Methodological materials for passing practice, maintaining current and preparing reporting documentation for students (also posted in the TUIS RUDN University in the relevant section of the discipline):

- 1. Safety regulations during the passage of the <u>«Pedagogical practice»</u> (initial briefing).
- 2. The general arrangement and principle of operation of technological production equipment used by students during their internship; flow charts and regulations, etc. (if necessary).
  - 3. Guidelines for filling in a diary by students and preparing a practice report.
- 8. EVALUATION MATERIALS AND SCORE-RATING SYSTEM FOR ASSESSING THE LEVEL OF FORMATION OF COMPETENCES ON THE RESULTS OF PRACTICE / ОЦЕНОЧНЫЕ МАТЕРИАЛЫ И БАЛЛЬНО-РЕЙТИНГОВАЯ СИСТЕМА ОЦЕНИВАНИЯ УРОВНЯ СФОРМИРОВАННОСТИ КОМПЕТЕНЦИЙ ПО ИТОГАМ ПРОХОЖДЕНИЯ ПРАКТИКИ

Evaluation materials and a point-rating system\* for evaluating students based on the results of passing

<u>«Pedagogical practice»</u> are presented in the Annex to this Practice Program (module).

\* - OM and BRS are formed on the basis of the requirements of the relevant local normative act of RUDN University (regulations / order).

#### **DEVELOPERS:**

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|-------------------------------------|----------------|-----------------|
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