

Federal State Autonomous Educational Institution of Higher Education
“Russian University of Peoples' Friendship”

Agrarian Technological Institute

Recommended ISSC

PRACTICE PROGRAM

Practice subject:

Internship

Recommended for the direction of training / specialty:

35.04.09 Landscape architecture

Program orientation (profile):

Management and design of urban green infrastructure

Graduate Qualifications: Master

1. The goal of the internship for the students following the curriculum “Management and design of urban green infrastructure” is to provide a solid background practical skills training in addressing impacts of urbanization through the monitoring and assessment of urban soils, design and maintenance of urban green infrastructure, and projects of sustainable urban development.

2. The research tasks are:

- to master practical skills in monitoring and assessment of urban ecosystems;
- to master practical skills in soil and tree survey in urban green infrastructures;
- to learn how to collect, process and analyze survey data;
- to obtain skills in visualization and presenting data for different stakeholders

3. Place of the discipline in the educational program.

Internship refers to the block 2 of the curriculum and takes place after semester 2. The Internship is based on knowledge, skills and competences, obtained when taking the courses in urban ecology, scientific writing skills, data analysis and statistics, landscape design, architecture and city planning, phytopathology and plant protection and economy of city services

4. The format of the internship – field, lab and in-class.

5. Practice duration and venue. The internship duration is one week. Internship takes place on the basis of the laboratory «Smart technologies for sustainable urban development under global changes» and Center of modelling and projecting of sustainable ecosystems of Agrarian-technological institute, RUDN University, other laboratories or enterprises working in the sphere of environmental analysis, landscape design, urban planning and sustainable development

6. Competencies, formed in result of the internship

As a result of the training practice, the student should acquire the following practical skills, abilities, universal and professional competencies:

As the of the training practice, the student should acquire the following practical skills, abilities, universal and professional competencies universal competencies (UC):

- Able to search, critical analysis problem situations based on a systematic approach, develop an action strategy (UC -1);
- Able to organize and manage the work of the team, developing a team strategy to achieve the goal (UC -3).
- Able to apply modern communication technologies in the state language of the Russian Federation and foreign language (s) for academic and professional interaction (UC - 4).
- Able to analyze and take into account the diversity of cultures in the process of intercultural interaction (UC - 5).

- Able to determine and implement the priorities of their own activities and ways to improve them on the basis of self-esteem (UC -6).

A graduate who has mastered the master's program must have the following general professional competencies (GPC):

- Able to analyze modern problems of science and production, solve complex (non-standard) tasks in professional activities (GPC-1);
- able to transfer professional knowledge with using modern pedagogical techniques (GPC -2);
- Able to develop and implement new effective technology in a professional activities (GPC -3).
- Able to conduct research, analyze the results and prepare reporting documents (GPC -4).
- Able to carry out a feasibility study of projects in professional activities (GPC -5).
- Able to manage teams and organize production processes (GPC -6).

A graduate who has mastered the master's program must have professional competencies (PC) corresponding to the type (types) of professional activity for which (which) Master's program is oriented:

production and technological activity:

- readiness for the design of technological processes for the engineering preparation of the territory, construction and maintenance of landscape architecture objects (PC-1);
- the ability to assess the effectiveness of the use of materials, equipment, technological processes at landscape architecture objects (PC-2);
- the ability to assess the impact of measures for the rational use and management of landscapes, taking into account improving the quality and safety of the human environment (PC-3);
- the ability to implement measures for external landscaping and landscaping to create favorable sanitary and hygienic conditions, to increase the level of comfort of a person's stay in an urban environment, its general aesthetic enrichment (PC-4);
- the ability to develop and implement a system of measures to preserve plantings in the interests of ensuring the right of every citizen to a favorable environment (PC-5);
- readiness to organize urban monitoring and inventory work on landscape architecture objects, compiling a green space inventory (PC-6);

organizational and management activities:

- ability to organize and conduct all types of work on landscape architecture objects (PC-9);

- readiness to manage landscape architecture objects in the field of their functional use, protection and protection (PC-10);

research activities:

- readiness to obtain new knowledge and conduct applied research in the field of landscape architecture (PC-16);
- ability to develop work plans and research programs in the field of landscape architecture, the ability to organize the collection, processing, analysis and
- systematization of scientific and technical information on the research topic, the choice of methods and tools for solving problems (PC-17);
- ability to prepare scientific and technical reports, reviews, publications based on the results of research in the field of landscape architecture (PC-18);

design activity:

- the ability to carry out the planning organization of open spaces, the design of the external environment, the design of landscape architecture objects, to develop restoration and reconstruction projects of territories of cultural heritage objects (PC-21);
- willingness to participate in the project activities of organizations, to work in a team of specialists related to sustainable development of territories at the stage of territorial planning and preparation of master plans for settlements and urban agglomerations (PC-22);
- willingness to develop (based on current standards) methodological and regulatory documents for the design of landscape architecture objects (PC-24);

7. Structure

Internship makes 4 hour (144 ECTS)

№	Sections (stages) of practice	Kinds of educational work in practice, including independent work of students and labor input (hours)	Forms of current control
1	Preparatory stage, familiarization of students with general information about the objects and methods of research, work plan, safety instructions, organizational issues	Class work (28 hours)	Report
2	Literature survey and review to support the methodological part of the further work	Field/ Lab work (28 hours)	Report, practice diary
3	Data collection in field (lab) conditions following the methodology	Field/ Lab work (28 hours)	Report, practice diary
4	Data processing, analysis and visualization	Field/ Lab work (28 hours)	Report
5	Preparation and defense of the internship report	Class work, preparation of the report and report defense (32 hours)	Report

8. Educational and research technologies used for the internship: Material and technical support of internship will be provided by usage all the necessary field and lab

equipment, computer classes, specialized audience and library funds of RUDN and enterprises the internship is based on

9. Software: QGIS, R, MS Office (Word, Excel, Power Point), access to the web-libraries Scopus and Web of Science and other professional software depending on the practical tasks.

10. Teaching and methodological support of students' independent work in educational practice.

The program of educational practice, developed by the Department of Landscape Design and Sustainable Ecosystems of the Agrarian-Technological Institute of the RUDN University, methodical recommendations on the organization and conducting practices for graduate students of the Landscape Architecture direction, Teodoronsky VS, Fatiyev MM Construction and operation of urban landscaping // study guide. Publishing house: M. Forum.-2011. 237s

10. Educational and methodical and informational support of research practice

a) Basic literature:

1. Basics of bioecology: a textbook / Dovletyarova E. A., Plushchikov V. G., Khairov (Ilyasova) N. I .; Peoples' Friendship University of Russia, 2010, - 98 p.
2. Environmental risk assessment and insurance of crops and crops (online course): study guide / V. G. Plushchikov, V. A. Raskatov, E. A. Dovletyarova; M-farm of the Russian Federation, the Russian state. Agrarian University - Moscow Agricultural Academy. K.A. Timiryazeva, 2010, - 169 p.
3. Modern landscape design: an educational and methodical complex; Dovletyarova E.A., Khairov (Ilyasov) N.I .; Peoples' Friendship University of Russia, 2008, - 205 p.
4. Agricultural risk management methods: proc. Method. allowance; V.G. Plyushchikov, E.A. Dovletyarova, N.I. Ilyasova; State educational institution of higher. prof. Education "Peoples' Friendship University of Russia", 2006, - 70 p.
5. Protection of agricultural production in emergency situations: studies. manual for students studying by agronomist. specialties; V.G. Plyushchikov, E.A. Dovletyarova; M-sat down. Ros households Federation, Feder. Education Agency, Feder. state educate institution of higher. prof. Education Ros. state agrarian un-t - ICHA them. K.A. Timiryazeva (FGOU VPO RGAU - Moscow Agricultural Academy named after KA Timiryazev), 2005, - 110 p. Vasenev V.I., Epikhina A.S. Urban ecology. RUDN University. 2017
6. Alberti M. Advances in Urban Ecology: Integrating Humans and Ecological Processes in Urban Ecosystems Springer; 2008 366 p.
7. R.T.T. Forman. Urban Ecology: Science of Cities Cambridge University

Press 2014. 474 p.

8. J. Niemela, J. H. Breuste, G. Guntenspergen. Urban Ecology: Patterns, Processes, and Applications. Oxford University Press; Reprint edition. 2012. 392 p.
9. Denisov V.V., Kurbatova A.S., Denisova I.A., Bondarenko V.L., Gracheva V.A., Gutenev V.V., Nagnibeda B.A. «Ecology of a city». M.: Rostov on Don: 2008-832 p. (in Russia).

b) Supplementary literature:

1. Dolgikh, A.V., Aleksandrovskii, A.L., 2010. Soils and cultural layers in velikii Novgorod. Eurasian Soil Science, 43, 477–48.
2. Ilina, I.N. (Eds.), 2000. Environmental atlas of the Moscow city. ABF. Moscow (in Russian)
3. Kaye, J.P., McCulley, R.L., Burkez, I.C., 2005. Carbon fluxes, nitrogen cycling, and soil microbial communities in adjacent urban, native and agricultural ecosystems. Global Change Biology 11, 575-587.
4. Lorenz, K., Lal, R., 2009. Biogeochemical C and N cycles in urban soils. Environment International 35, 1–8.
5. Pickett, S.T.A., Cadenasso, M.L., Grove, J.M., Boone, C.G., Groffman, P.M., Irwin, E., Kaushal, S.S., Marshall, V., McGrath, B.P., Nilon, C.H., Pouyat, R.V., Szlavecz, K., Troy, A., Warren, P., 2011. Urban ecological systems: scientific foundations and a decade of progress. Journal of Environmental Management 92, 331–362
6. Scalenghe, R., Marsan, F.A. The anthropogenic sealing of soil in urban areas, 2009. Landscape and urban planning 90, 1-10. .
7. Vrscaj, B., Poggio, L., Marsan, F., 2008. A method for soil environmental quality evaluation for management and planning in urban areas. Landscape and Urban Planning 88, 81-94

- c) Software and web-resources: <http://www.mvarchicad.com><http://artlantis.ru/>
<http://www.autodesk.ru>. <http://www.adobe.com>. <http://www.archibase.net>.
<http://www.artshare.ru>. <http://archicad.ru/>. <http://www.archicad-edu.info>.
<http://www.archi-tec.ru/>. <http://www.arhitekto.ru/>. <http://arkhitektura.ru/>.
<http://www.archibase.net>. <http://www.gardener.ru/>. <http://www.landshaft.ru/>

12. Forms of intermediate certification (practice results)

Certification of the internship is carried out in the form of a differentiated test based on the practice diary, the student's report on the internship and the implementation of the practice plan.

13. Evaluation criteria for the intermediate certification of students in internship

Certification of educational practice is carried out for students in the credit-modular system according to the ECTS grading system.

Educational practice is given 3 ECTS.

In accordance with the ECTS system, a student can get 100 points maximum for the practice.

The evaluation criteria are the following:

Points	Russian marks	ESTC Marks
95-100	5	A
86-94		B
69-85	4	C
61-68	3	D
51-60		E
31-50	2	Fx
0-30		F
51-100	Test	Passed

- Diary preparation - 20 points;
- Literature review - 20 points;
- Report content - 20 points;
- Report formatting - 10 points;
- Report presentation - 20 points;
- Report defense - 10 points;

Attestation of a student on educational practice is conducted by a commission of four teachers, chaired by the head of the department. The protection of the practice report is in the short report (5-10 minutes) of the student and in the answers to the questions on the substance of the report.

According to the results of protection of the report, the student is given an assessment of educational practice. In evaluating the report, the content and correctness of the student's diary on educational practice, the report on educational practice, the characteristics of the practice managers from the organization and the department, the quality of answers to questions during the report protection are taken into account.

A student who has not completed the practice program for a disrespectful reason, has received a negative feedback from the supervisor on the work or has an unsatisfactory rating in defending the report, by agreement with the graduating department, may be sent to the practice again during his free time or presented to the dismissal as having academic debt in the order stipulated by the University Charter. Students-trainees who violate the rules of internal order, leaders of enterprises,

institutions and organizations may be subject to penalties, which is informed by the leadership of the University. The rector decides on the possibility of further student stay at the University. A student who has not completed the practice for a good reason, passes it in her free time. In some cases, the practice can be organized on the basis of the laboratories of the graduating department.

The results of the students' practice are discussed at the meeting of the graduating department.

The program is compiled in accordance with the requirements of OS VO RUDNF / FROS VO.

Developers:

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