

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

Agrarian Technological Institute

Recommended ISSC

PRACTICE PROGRAM

Practice subject:

Practice in economy of city-services

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

(in accordance with the order of the Ministry of Education and Science of the Russian Federation of 12.09.2013 №1061))

1. The purpose of the practice for students of the direction “Management and design of urban green infrastructure” is to consolidate the theoretical and practical knowledge gained by students in the study of specialized disciplines. Learn the basic concepts and principles of the economy of urban services, international issues of urban planning and environmental protection. Prepare a project proposal (presentation) of a program to improve international cooperation in the field of urban planning and environmental protection.

2. The main tasks of the practice: - master the basic concepts and principles of the ecology of cities and settlements;

- to study environmental factors in an urbanized environment;

- master national and regional trends in urban planning and environmental protection;

- identify the main trends and trends of international cooperation in the field of urban planning and environmental protection;

- predict the development of international cooperation in the field of urban planning and environmental protection;

- prepare a project for the implementation of basic concepts to improve international cooperation in the field of urban planning and environmental protection

3. Place of practical training in the structure of EP

IN. Educational practice is included in the basic part of the educational and industrial practices of the cycle B.2.

4. Forms of industrial practice - archival, information and analytical

5. Place and time of production practice. Educational practice lasts for 2 weeks. Educational practice is held on the basis of the Agrarian-Technological Institute of RUDN University, the laboratory of Smart Technologies for Sustainable Development in an Urban Environment, and the Center for Mathematical Modeling and Design of Sustainable Ecosystems of ATI RUDN.

6. Competences of the student, formed as a result of practical training.

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

- possession of the main methods of landscape taxation, condition monitoring, and inventory on objects of landscape architecture (PC-9);
- possession of the methodology of factorial project landscape analysis in the design of green areas in populated areas (PC-10);
- possession of the method of creation, reconstruction (restoration), maintenance of objects of landscape architecture in populated areas (PC-11);
- carry out measurements, boundary descriptions and binding of landscape architecture objects on the ground using geodesic (PC-13) and forest synchronization devices (PC-14);
- to give the landscape characteristic of the surveyed area (PC-18);
- perform measurements of trees and shrubs using instruments, determine the quantitative and qualitative assessment of the state of greenery (PC-19);
- readiness to substantiate technical solutions for the development and engineering preparation of territories for the construction of landscape architecture objects (PC-24);
- readiness to provide the organization of work on the operation of machines, mechanisms, specialized equipment at the objects of landscape construction and decorative nurseries (PC-25);
- readiness to appoint and carry out activities on the maintenance of objects of landscape architecture (PC-26);
- readiness to carry out measures for the production of planting material in open and closed ground (PC-27);
- the ability to correctly and effectively carry out activities aimed at preserving the environment-forming, water protection, protective, sanitary and hygienic, recreational and other useful functions of green plantings and structures at the objects of landscape architecture (PC-28);
- readiness to substantiate engineering measures for the reconstruction (restoration) of objects of landscape architecture (PC-29);
- readiness to conduct an inventory on the objects of landscape architecture and monitoring their condition (PC-30);
- the ability to analyze the process as an object of management (PC-31);
- the ability to determine the cost parameters of the main production resources in the design and construction of landscape architecture objects (PC-32);
- the ability to organize the work of performers, find and make management decisions in the field of organization and regulation of labor (PC-33);
- readiness to systematize and summarize information on the use of enterprise resources and their formation (PC-34);

- readiness to carry out technical and architectural supervision and control (compliance with the basic principles of Russian legislation and other regulatory legal acts governing architectural and landscape relations), calculate the amount of harm caused due to violation of the town-planning legislation of the Russian Federation (PC-35);
 - the ability to apply modern methods of research objects of landscape architecture (PC-37);
- readiness to study scientific and technical information, domestic and foreign experience on the subject of research in the field of landscape architecture;
- readiness to conduct an experiment according to a given method, analyze the results obtained (PC-38);
 - the ability to use computer-aided design and geographic information systems (PC-40);
 - readiness to conduct pre-design surveys on objects of landscape architecture (PC-20);
 - the ability to develop design and working technical documentation on objects of landscape architecture, execute completed design works (PC-21);
 - willingness to participate in the development of engineering and technology issues in the design of objects of landscape architecture using new information technologies and automated design systems (PC-22);
 - the ability to use regulatory documents that define the requirements for the design of objects of landscape architecture (PC-23).

7. Structure and content of industrial practice

The total labor input of manufacturing practice is 3 credit units (108 hours.)

Sections (stages)	Types of production work, of in practice, including	Forms of
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1 (Indicates	Or	Lan	Lan	Eco	Pre	Prote	
3 Exit stage: technical instruction safety in the workplace, familiarity with the structure of the organization	+	+	+	+	+	+	Report
4.Registratio n of the report on educational	+	+	+	+	+		Report
5 Protection of the report training practice	+	+	+	+	+	+	Report, diary
documentati on							

8. Educational, research and scientific-production technologies used in practice: For the material and technical support of educational practice computer classes are used, specialized audience and library fund, laser range finder, level, theodolite, plotter, Autocad, Archicad, 3D MAX , Photoshop, Web desing.

9. Educational and methodological support of independent work of students in the field of production.

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 conduct of production 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.

Telecommunication educational information system (TUIS):

<http://esystem.pfur.ru/>

<http://quakes.globalincidentmap.com/>,

<http://www.globalincidentmap.com/>,

http://earthquake.usgs.gov/earthquakes/recenteqsww/Quakes/quakes_all.php,

http://www.thesis.lebedev.ru/forecast_activity.html

Electronic library system RUDN - EBS RUDN:

<http://lib.rudn.ru:8080/MegaPro/Web>

Educational portal of RUDN (<http://web-local.rudn.ru>);

University Library Online: <http://www.biblioclub.ru>

National digital resource "RUKONT": <http://rucont.ru>

IQlib: <http://www.iqlib.ru>

Science Direct: <http://www.sciencedirect.com>

EBSCO: <http://search.ebscohost.com>

Sage Publications: <http://online.sagepub.com>

Springer / Kluwer: <http://www.springerlink.com>

Taylor & Francis: <http://www.informaworld.com>

Web of Science: <http://www.isiknowledge.com>

University Information System RUSSIA: <http://www.cir.ru/index.jsp>

Educational portal of RUDN: <http://web-local.rudn.ru/>

Student Consultant <http://www.studmedlib.ru>

10. Educational, methodical and informational support of production practices

a) main literature

Kurbatova A.S., Bashkin V.N., Kasimov N.S. «Ecology of a city». – M.: 2004 – 624 p (in Russian).

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).

Alberti M. *Advances in city-planning: Integrating Humans and Ecological Processes in Urban Ecosystems* Springer; 2008 366 p.

R.T.T. Forman. *Economy of city: Science of Cities* Cambridge University Press 2014. 474 p.

J. Niemela, J. H. Breuste, G. Guntenspergen. *Economy of city: Patterns, Processes, and Applications*. Oxford University Press; Reprint edition. 2012. 392 p.

b) supplementary literature:

1). Bandaranayake W., Qian Y. L., Parton W. J., Ojima D. S. and Follett R. F., 2003. Estimation of Soil Organic Carbon Changes in Turfgrass Systems Using the CENTURY Model. *Agron. J.* 95, 558–563.

2). Dolgikh, A.V., Aleksandrovskii, A.L., 2010. Soils and cultural layers in velikii Novgorod. *Eurasian Soil Science*, 43, 477–48.

3). Gerasimova, M.I., Stroganova, M.N., Mozharova, N.V., Prokofieva, T.V., 2003. *Urban Soils*. Oykumena, Smolensk.(in Russian)

4). Golubiewski, N.E., 2006. Urbanization Increases Grassland Carbon Pools: Effects of Landscaping in Colorado's Front Range. *Ecological Applications* 16, 555-571.

5). Ilina, I.N. (Eds.), 2000. *Environmental atlas of the Moscow city*. ABF. Moscow (in Russian)

6). Jo, H.K., McPherson E.G., 1995. Carbon Storage and Flux in Urban Residential Greenspace. *Journal of Environmental Management* 45, 109–133.

7). 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.

8). Lorenz, K., Lal, R., 2009. Biogeochemical C and N cycles in urban soils. *Environment International* 35, 1–8.

10). 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

- 11). Prokofieva, T.V., Stroganova, M.N., 2004. Soils of Moscow city (soils in urban environment, their specifics and environmental significance). Moscow Biological. GEOS, Moscow.
- 12). Scalenghe, R., Marsan, F.A. The anthropogenic sealing of soil in urban areas, 2009. Landscape and urban planning 90, 1-10. .
- 13). Vasenev, V.I., Ananyeva, N.D., Makarov, O.A., 2012. Specific features of the ecological functioning of urban soils in Moscow and Moscow oblast. Eurasian Soil Science 45, 194-205.
- 14). Vasenev, V.I., Stoorvogel, J.J., Vasenev I.I., 2013b. Urban soil organic carbon and its spatial heterogeneity in comparison with natural and agricultural areas in the Moscow region. Catena. 107.96-102.
- 15). 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

11. Material and technical support of educational practice.

Standard equipment (educational furniture for students, teacher's workplace, blackboard);

Computers connected to the Internet information-telecommunication network, access to the electronic library UNIBTS (NB) RUDN (lib.rudn.ru), software ARCHICAD, AutoCAD, SketchUp, Autodesk 3ds Max;

Multimedia installation (PC, screen, projector);

Drawing boards, mock-up table, pencils, rulers, rapidographs.

12. Forms of intermediate certification (on the basis of practice)

Practice report

13. Fund of appraisal funds for intermediate certification of students for educational practice Economy of city-services

Differentiated practice credit is equal to the assessment of theoretical training and is taken into account when summing up the overall performance of students. The final stage of the practice is to summarize its results.

Trainees who do internships submit to the department a practice diary reflecting the work, a review of the practice leader from the organization and a report on the learning practice. Attached to the report are copies of documents, tables, graphs, etc ... When protecting a practice, the volume of the program of practice is taken into account, the correctness of the paperwork, the content of the response characteristic; the correctness of the answers to the questions asked by the practice leader. Practice

materials (report, testimonial description, practice diary, etc.) after its protection are stored in the department. Evaluation is carried out on a point - rating system, the distribution of points and recalculation in the estimates are presented in tables. Критерии оценки успеваемости практикантов.

Criteria	Units	Amount points
Component timeliness of delivery of materials	presented	10
	partially presented	8
	not submitted	4
Correct registration of the report on educational practice	presented	20
	partially presented	16
	not submitted	8
The correctness of the implementation of drawings for educational practice	presented	20
	partially presented	16
	not submitted	8
Protection of the report on educational practice	presented	20
	partially presented	16
	not submitted	8
General level of communication culture	presented	10
	partially presented	8
	not submitted	4
Ability to develop recommendations and suggestions	is able	10
	able to fragment	8
	can not	4
Skills and experience in applying knowledge in practice	possesses	10
	possesses partially	8
	does not possess	4
Total:		0-100

Compliance of assessment systems (previously used estimates of final academic performance, ECTS scores and point-rating system (BRS) of current performance assessments).

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

Explanation of the rating table:

Description of ECTS ratings

A	“Excellent” - the theoretical content of the course has been fully mastered, without gaps, the necessary practical skills of working with the mastered material have been formed, all the training tasks provided by the training program have been completed, the quality of their implementation is estimated by the number of points close to the maximum.
B	“Very good” - the theoretical content of the course has been fully mastered, without gaps, the necessary practical skills of working with the mastered material are mostly formed, all the training tasks provided for by the training program are completed, the quality of performance of most of them is estimated by the number of points close to the maximum.
C	“Good” - the theoretical content of the course is mastered completely, without gaps, some practical skills of working with mastered material are not sufficiently developed, all the training tasks provided by the training program are completed, the quality of performance of none of them is assessed by the minimum number of points, some types of tasks are completed with errors.
D	“Satisfactory” - the theoretical content of the course is partially mastered, but the gaps are not significant, the necessary practical skills of working with the material mastered are mostly formed, most of the training tasks provided by the training program are completed, some of the tasks performed may contain mistakes.
E	“Mediocre” - the theoretical content of the course is partially mastered, some practical skills are not formed, many of the training tasks provided by the training program are not met, or the quality of performance of some of them is estimated by the number of points close to the minimum.

FX	<p>“Conditionally unsatisfactory” - the theoretical content of the course is partially mastered, the necessary practical skills are not formed, most of the training tasks provided by the training program are not met, or the quality of their implementation is assessed by the number of points close to the minimum; With additional independent work on the course material, it is possible to improve the quality of the performance of educational tasks.</p>
F	<p>“Certainly unsatisfactory” - the theoretical content of the course is not mastered, the necessary practical skills of work are not formed, all the completed training tasks contain blunders, additional independent work on the course material will not lead to any significant improvement in the quality of the training tasks.</p>

Positive grades, upon receipt of which the course is counted to the student as completed, are grades A, B, C, D and E.

A student who has received an FX assessment for the educational practice of an educational program must, after consulting with the appropriate teacher within the prescribed time frame, successfully complete the required minimum amount of educational work envisaged by the training program and present the results of this work to this teacher. If the quality of work is found to be satisfactory, then the final assessment of FX is increased to E and the student is allowed to further training.

In the event that the quality of the educational work remains unsatisfactory, the final grade drops to F and the student is submitted for expulsion. In the case of an assessment of F or FX, the student is presented for expulsion regardless of whether he has any other debts in other disciplines.

Developer:

Assistant of the Department
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Program Manager:

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