MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION Federal State Autonomous Educational Institution of Higher Education

"Far Eastern Federal University"

(FEFU)

INSTITUTE OF MATHEMATICS AND COMPUTER TECHNOLOGIES (SCHOOL)

AGREED
Head of Educational program
Shichalina V.A.

CONFIRM
Director of the Department of Information and Computer Systems
Fedorets A.N.

WORKING PROGRAM OF THE DISCIPLINE

Data collection and analysis project

Area of study 09.03.02 Information systems and technologies (Digital footprint analytics)
Form of training: full-time

The work program was compiled in accordance with the requirements of the Federal State Educational Standard in the field of study 09.03.02 Information systems and technologies, approved by order of the Ministry of Education and Science of the Russian Federation dated September 19, 2017 No. 926 (as amended).

The work program was discussed at a meeting of the Department of Information and Computer Systems, protocol No. 4 of February 03, 2023.

Director of the Department of Information and Computer Systems Fedorets A.N.

Compilers: prof. Pustovalov E.V.

Vladivostok
2023

Reverse side of the title page of the RPD

1. *The work program was revised at a meeting of the Department of Information and Computer Systems and approved at a meeting of the Department of Information and Computer Systems, protocol dated "" 20_ No.* _ _ _

2. *The work program was revised at a meeting of the Department of Information and Computer Systems and approved at a meeting of the Department of Information and Computer Systems, protocol dated "" 20_ No.* _ _ _

3. *The work program was revised at a meeting of the Department of Information and Computer Systems and approved at a meeting of the Department of Information and Computer Systems, protocol dated "" 20_ No.* _ _ _

4. *The work program was revised at a meeting of the Department of Information and Computer Systems and approved at a meeting of the Department of Information and Computer Systems, protocol dated "" 20_ No.* _ _ _

5. *The work program was revised at a meeting of the Department of Information and Computer Systems and approved at a meeting of the Department of Information and Computer Systems, protocol dated "" 20_ No.* _ _ _

Discipline abstract

Data collection and analysis project

The total labor intensity of the discipline is 6 credits / 216 academic hours. It is a discipline of the part formed by the participants of educational relations, EP, is studied in the 3rd year and ends with a test with an assessment. The curriculum provides for laboratory work in the amount of 108 hours, and hours are allocated for independent work of the student - 108 hours.

Implementation language: Russian.

Target:

To form competencies and project work skills, to master various approaches to collecting and analyzing data in practice.

Tasks:

- study of the basic principles of project management organization;
- study of methods and techniques for collecting and analyzing data;
- form and implement the interaction of team members;
- apply methods of monitoring and maintaining the quality of work;
- navigate in reference scientific literature;
- to form the skills of data collection and analysis;
- develop skills and abilities in data collection and analysis.

The planned learning outcomes in the discipline, correlated with the planned results of mastering the educational program, characterize the formation of the following competencies:

Task type	Code and name professional competencies (result of development)	Code and name indicator achievements competencies	Name indicator evaluation (result training in discipline)
scientific research	PC-1 Capable conduct research information systems and technologies, analyze scientific and technical information and results experiments	PC-1.1 Collects, processes, analyzes and summarizes the results experiments and research, domestic and international experience in area information systems and technologies	Knows methodological collection basis, processing results research in areas information systems and technologies Able to generalize results experiments and research in areas information systems and technologies

			Skilled analysis domestic and foreign experience in areas

Task type	Code and name professional competencies (result of development)	Code and name indicator achievements competencies	Name indicator evaluation (result training in discipline)
			information systems and technologies
		PC-1.2 Conducts experiments and draws up results research and developments in the field information systems and technologies	Knows methods holding experiments in areas information systems and technologies Knows how to choose relevant design methods results research on all life stages cycle information systems Skilled rationale for choice applied methods research
		PC-1.3 Capable develop calendar projects plans and programs holding individual elements scientific research and experimental design works	Knows the principles formation of plans holding research in areas information systems and technologies Able to develop programs holding research in areas information systems and technologies Skilled project development calendar plans and programs for individual elements scientific research and experimental design

			works
design	PC-2 Capable to work in international project team in areas information systems and technologies, analyze,	PC-2.1 Analyzes methods and means design information systems and technologies	Knows the basic methods design information systems and technologies Can identify and analyze methods design

Task type	Code and name professional competencies (result of development)	Code and name indicator achievements competencies	Name indicator evaluation (result training in discipline)
	to plan design work		Skilled method analysis and funds design information systems and technologies
		PC-2.2 Organizes execution of works projects in the field information technologies based project plans	Knows the basic organization methods execution of works projects Can organize execution of works projects in the field information technologies Skilled organizations execution of works projects in the field information technologies
		PC-2.3 Monitors implementation projects in the field information technologies based project plans	knows methods and controls project implementation Able to conduct time estimate completion of stages projects Skilled execution control projects
production- technological	PC-7 Capable analyze digital footprint person (group people) and information and communication systems	PC-7.1 Collects and prepares digital data trace for holding analysis	knows the structure and sources of digital trace, methods preprocessing data Able to carry out collection and processing digital data trace Skilled collection and preparation digital data

			trace for holding analysis
		PC-7.2 Checks hypotheses and reveal patterns in data arrays	Knows algorithms data processing, software security, libraries and frameworks for data analysis

Task type	Code and name professional competencies (result of development)	Code and name indicator achievements competencies	Name indicator evaluation (result training in discipline)
			Knows how to apply processing algorithms data, specialized software provision for data analysis Skilled hypothesis testing and search patterns in data arrays
		PC-7.3 Visualizes analysis results digital footprint	Knows methods visual data display, specialized software provision for data visualization Knows how to apply specialized software security, libraries and frameworks for data visualization Skilled visualization analysis results digital footprint
production-technological	PC-8 Capable conduct analytical research with application big technologies data	PC-8.1 Defines sources of great data for analysis, retrieve, check and clear the data	Knows sources big data, storage technologies and processing of large data Can produce extraction, cleaning, integration and transformation large volumes data Skilled definitions great sources data for analysis, extraction skills, checks and cleaning

			data
		PC-8.2 Analyzes and select methods and instrumental analysis tools big data	Knows theoretical and applied fundamentals analysis of large data, modern methods and instrumental analysis tools big data

Task type	Code and name professional competencies (result of development)	Code and name indicator achievements competencies	Name indicator evaluation (result training in discipline)
			Knows how to choose relevant methods and instrumental analysis tools big data Skilled comparative analysis and reasonable choice of methods and instrumental analysis tools big data
		PC-8.3 Conducts analytical work using big technologies data	Knows theoretical and applied fundamentals analysis of large data, technology data analysis Can plan and conduct analytical work using big technologies data Skilled holding analytical work using big technologies data

I.Goals and objectives of mastering the discipline:

Target:

To form competencies and project work skills, to master various approaches to collecting and analyzing data in practice.

Tasks:

- study of the basic principles of project management organization;
- study of methods and techniques for collecting and analyzing data;
- form and implement the interaction of team members;
- apply methods of monitoring and maintaining the quality of work;
- navigate in reference scientific literature;
- to form the skills of data collection and analysis;

- develop skills and abilities in data collection and analysis.

The place of the discipline in the structure of the OBEP HE (in the curriculum):

The total labor intensity of the discipline is 6 credits / 216 academic hours. Is the discipline of the part formed by the participants

educational relations, OP, is studied in the 3rd year and ends with a test with an assessment. The curriculum provides for laboratory work in the amount of 108 hours, and hours are allocated for independent work of the student - 108 hours.

Task type	Code and name professional competencies (result of development)	Code and name indicator achievements competencies	Name indicator evaluation (result training in discipline)
scientific research	PC-1 Capable conduct research information systems and technologies, analyze scientific and technical information and results experiments	PC-1.1 Collects, processes, analyzes and summarizes the results experiments and research, domestic and international experience in area information systems and technologies	Knows methodological collection basis, processing results research in areas information systems and technologies Able to generalize results experiments and research in areas information systems and technologies Skilled analysis domestic and foreign experience in areas information systems and technologies
		PC-1.2 Conducts experiments and draws up results research and developments in the field information systems and technologies	Knows methods holding experiments in areas information systems and technologies Knows how to choose relevant design methods results research on all life stages cycle information systems

			Skilled rationale for choice applied methods research
		PC-1.3 Capable develop calendar projects plans and programs holding individual elements scientific	Knows the principles formation of plans holding research in areas information systems and technologies

Task type	Code and name professional competencies (result of development)	Code and name indicator achievements competencies	Name indicator evaluation (result training in discipline)
		research and experimental design works	Able to develop programs holding research in areas information systems and technologies Skilled project development calendar plans and programs for individual elements scientific research and experimental design works
design	PC-2 Capable to work in international project team in areas information systems and technologies, analyze, to plan design work	PC-2.1 Analyzes methods and means design information systems and technologies	Knows the basic methods design information systems and technologies Can identify and analyze methods design Skilled method analysis and funds design information systems and technologies
		PC-2.2 Organizes execution of works projects in the field information technologies based project plans	Knows the basic organization methods execution of works projects Can organize execution of works projects in the field information technologies Skilled organizations

			execution of works projects in the field information technologies
		PC-2.3 Monitors implementation projects in the field information technologies based	knows methods and controls project implementation Able to conduct time estimate

Task type	Code and name professional competencies (result of development)	Code and name indicator achievements competencies	Name indicator evaluation (result training in discipline)
		project plans	completion of stages projects Skilled execution control projects
production-technological	PC-7 Capable analyze digital footprint person (group people) and information and communication systems	PC-7.1 Collects and prepares digital data trace for holding analysis	knows the structure and sources of digital trace, methods preprocessing data Able to carry out collection and processing digital data trace Skilled collection and preparation digital data trace for holding analysis
		PC-7.2 Checks hypotheses and reveal patterns in data arrays	Knows algorithms data processing, software security, libraries and frameworks for data analysis Knows how to apply processing algorithms data, specialized software provision for data analysis Skilled hypothesis testing and search patterns in data arrays
		PC-7.3 Visualizes analysis results digital footprint	Knows methods visual data display, specialized software provision for data visualization Knows how to apply

			specialized software security, libraries and frameworks for data visualization Skilled visualization analysis results

Task type	Code and name professional competencies (result of development)	Code and name indicator achievements competencies	Name indicator evaluation (result training in discipline)
			digital footprint
production-technological	PC-8 Capable conduct analytical research with application big technologies data	PC-8.1 Defines sources of great data for analysis, retrieve, check and clear the data	Knows sources big data, storage technologies and processing of large data Can produce extraction, cleaning, integration and transformation large volumes data Skilled definitions great sources data for analysis, extraction skills, checks and cleaning data
		PC-8.2 Analyzes and select methods and instrumental analysis tools big data	Knows theoretical and applied fundamentals analysis of large data, modern methods and instrumental analysis tools big data Knows how to choose relevant methods and instrumental analysis tools big data Skilled comparative analysis and reasonable choice of methods and instrumental analysis tools big data
		PC-8.3 Conducts analytical work using big technologies data	Knows theoretical and applied fundamentals analysis of large data, technology data analysis Can plan and

			conduct analytical work using big technologies data Skilled holding analytical work using

Task type	Code and name professional competencies (result of development)	Code and name indicator achievements competencies	Name indicator evaluation (result training in discipline)
			big technologies data

II. The complexity of the discipline

The total labor intensity of the discipline is 6 credit units (216 academic hours).

III. Discipline structure:

Full-time form of education.

No.	*Section name disciplines*	*Semester*	*Number of hours by type of training classes and work of the student*						*Forms intermediate Ouch attestations*
			Lek	*Lab*	*Etc*	*OK*	*SR*	*Control b*	
1	*Topic 1 Collecting data from Internet networks*			*12*			*108*		
2	*Topic 2 Preliminary data processing.*			*12*					
3	*Topic 3 Optimization queries and database*			*12*					
4	*Topic 4 Data Analysis and performance results.*			*12*					
9	*Total*			*108*			*108*		*offset from evaluation*

IV.CONTENT OF THE THEORETICAL PART OF THE COURSE Lectures are not provided.

v.CONTENT OF THE PRACTICAL PART OF THE COURSE

Practical lessons

Practical classes are not provided.

Laboratory works

LABORATORY WORK 1. Collecting data from the Internet
Tasks:
Analysis of the data model to collect

Analysis of the presentation format of the initial data
Development of an algorithm for parsing web pages
Development of the database structure
Methodological recommendations for completing tasks:
Before performing practical steps, find the instructions on the network and read them carefully. If there are several instructions, start with the shortest one, it will take less time, even if it is not workable. After each step, check the correct operation of the functions. If there are problems or errors, do not move on, but search for information on the error or problem. The most complete instructions are most often in English.

LABORATORY WORK 2. Data preprocessing Tasks:
Developing a data collection script in Python
Parsing HTML pages
Data preprocessing
Populating the database
Methodological recommendations for completing tasks:
Before performing practical steps, find the instructions on the network and read them carefully. If there are several instructions, start with the shortest one, it will take less time, even if it is not workable. After each step, check the correct operation of the functions. If there are problems or errors, do not move on, but search for information on the error or problem. The most complete instructions are most often in English

LABORATORY WORK 3. Query and database optimization Tasks:
Analysis of the time of data collection and processing of
HTML pages Optimization of collection and processing
algorithms Methodological recommendations for completing
tasks:
Before performing practical steps, find the instructions on the network and read them carefully. If there are several instructions, start with the shortest one, it will take less time, even if it is not workable. After each step, check the correct operation of the functions. If there are problems or errors, do not move on, but search for information on the error or problem. The most complete instructions are most often in English

LABORATORY WORK 4. Data analysis and presentation of results Tasks:
Definition of statistical samples by categories
DB query development
Generation of reports in text and graphic form
Methodological recommendations for completing tasks:
Before performing practical steps, find the instructions on the network and read them carefully. If there are several instructions, start with the shortest one, it will take less time, even if it is not workable. After each step, check the correct operation of the functions. If there are problems or errors, do not move on, but search for information on the error or problem. The most complete instructions are most often in English

VI.CONTROL OF ACHIEVEMENT OF COURSE OBJECTIVES

No.

controlled

Code and

Learning Outcomes

Estimated

p/p	e sections/topics disciplines	Name indicator achievements		facilities *	
				Current th control b	Intermedi a weft certificate tion
1	All sections and Topics.	PC-1.1 Collects, processes, analyzes and summarizes results experiments and research, domestic and international experience in the field information systems and technologies	Knows methodological basis for collecting, processing research results in area information systems and technologies Able to generalize experimental results and research information systems and technologies Proficient in analysis domestic and foreign experience in information systems and technologies	PR-7	-
		PC-1.2 Conducts experiments and draws up results research and developments in areas information systems and technologies	Knows the methods experiments in the field information systems and technologies Knows how to choose appropriate methods presentation of results research on all life cycle stages information systems Skilled rationale for choice applied methods research	PR-7	-
		PC-1.3 Capable develop projects calendar plans and programs holding individual elements of scientific research and experienced design works	Knows the principles formation of plans research in area information systems and technologies Able to develop programs for research in the field information systems and technologies Skilled project development	PR-7	-

			calendar plans and programs for individual elements research and development works		

		PC-2.1 Analyzes methods and means design information systems and technologies	Knows basic methods design information systems and technologies Can identify and analyze methods design Proficient in analysis methods and means design information systems and technologies	PR-7	-
		PC-2.2 Organizes execution of works projects in areas information technologies on plans projects	Knows basic methods organization of execution project work Can organize execution of works projects in the field information technologies Skilled organization of execution projects in the field information technologies	PR-7	-
		PC-2.3 Monitors implementation projects in areas information technologies on plans projects	Knows methods and means execution control projects Can evaluate runtime project stages Skilled execution control projects	PR-7	-
		PC-7.1 Collects and prepares digital data trace for holding analysis	knows the structure and sources of digital trace, methods data preprocessing Ability to collect and data preprocessing digital footprint Skilled in collecting and data preparation digital footprint for analysis	PR-7	-
		PC-7.2 Checks hypotheses and reveals patterns in data arrays	Knows algorithms data processing, software, libraries and frameworks for data analysis Knows how to apply	PR-7	-

			processing algorithms data, specialized software		

			for data analysis Skilled hypothesis testing and search patterns in data arrays		
		PC-7.3 renders results analysis digital footprint	Knows visual techniques data display, specialized software for data visualization Knows how to apply specialized software, libraries and frameworks for data visualization Skilled visualization of results digital footprint analysis	PR-7	-
		PC-8.1 Defines sources big data for analysis, extracts, checks and clears data	Knows the sources of data, technology storage and processing big data Can produce extraction, cleaning, integration and large conversion volumes of data Skilled source definitions big data for analysis, skills extraction, verification and data cleaning	PR-7	-
		PC-8.2 Analyzes and chooses methods And instrumental analysis tools big data	Knows theoretical and applied fundamentals big data analysis, modern methods and instrumental large data Knows how to choose appropriate methods and instrumental analysis tools big data Skilled benchmarking and informed choice methods and tools big data analysis	PR-7	-
		PC-8.3 Conducts analytical work with using	Knows theoretical and applied fundamentals big data analysis, analysis technologies data	PR-7	-

		technologies big data	Can plan and conduct analytical work using big technologies		

			data Skilled analytical works using big technologies data		
	score with score	PC-1.1;PC-1.2;PC-1.3;PC-2.1;PC-2.2;PC-2.3;PC-7.1;PC-7.2;PC-7.3;PC-8.1;PC-8.2;PC-8.3		-	UO-1

* Forms of assessment tools: interview / oral survey (LO-1) laboratory work (WP-7)

VII. EDUCATIONAL AND METHODOLOGICAL SUPPORT FOR INDEPENDENT WORK

STUDENTS

Independent work is defined as an individual or collective learning activity carried out without the direct guidance of a teacher, but according to his instructions and under his control. Independent work is a cognitive learning activity, when the sequence of a student's thinking, his mental and practical operations and actions depends and is determined by the student himself.

Independent work of students contributes to the development of independence, responsibility and organization, a creative approach to solving educational problems.
и professional levels, which ultimately leads to the development of the skill of independent planning and implementation of activities.

Registration of reports on laboratory and practical exercises, term paper in accordance with GOST 7.32-2017.

The purpose of independent work of students is to master the necessary competencies in their field of study, experience in creative and research activities.

Forms of independent work of students:

- work with basic and additional literature, Internet resources;
- self-acquaintance with the lecture material presented on electronic media in the library of an educational institution;
- preparation of abstract reviews of sources of periodicals, reference notes, predetermined by the teacher;

- search for information on a topic with its subsequent presentation to the audience in

the form of a report, presentations;

- preparation for the implementation of classroom control work;
- performance of home control works;
- performance of test tasks, problem solving;
- drawing up crossword puzzles, schemes;
- preparation of reports for presentation at a seminar, conference;
- filling out a workbook;
- essay writing, term paper;
- preparation for business and role-playing games;
- compiling a resume;
- preparation for tests and exams;
- other activities organized and carried out by the educational institution and student self-government bodies.

Educational and methodological support of independent work of students in the discipline includes a schedule for the implementation of independent work in the discipline.

Schedule for the implementation of independent work on the discipline

No. p/p	Date/Due dates	View independent work	Approximate norms time for performance	form of control
1.	During the semester	Preparing for classes: studying literature, decor results works/tasks.	108 hours	PR-7 UO-1 Pass with an assessment
	Total		108 hours	

Independent work by discipline includes in prepare yourself for laboratory studies (literature study) and preparation for intermediate certification in the discipline.

It is recommended to use various opportunities for working with literature: the collections of the FEFU Scientific Library (http://www.dvfu.ru/library/) and other leading universities of the country, as well as scientific library systems available for use.

VIII. REFERENCES AND INFORMATIONAL AND METHODOLOGICAL ENFORCING DISCIPLINE

Main literature

1. Grekul, V. I. Designing information systems: textbook and workshop for universities / V. I. Grekul, N. L. Korovkina, G. A. Levochkina. - Moscow: Yurayt Publishing House, 2020. - 385 p. - (Higher education). - ISBN 978-5-9916-8764-5. - Text : electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/450997
2. Zabotina, N. N. Designing information systems: study guide / N. N. Zabotina. - Moscow: INFRA-M, 2020. - 331 p. — (Higher education: Bachelor's degree). - ISBN 978-5-16-004509-2. - Text : electronic. - URL: https://znanium.com/catalog/product/1036508
3. Martyshin, S. A. Fundamentals of the theory of reliability of information systems: study guide / S. A. Martyshin, V. L. Simonov, M. V. Khrapchenko. - Moscow: FORUM: INFRA-M, 2020. - 255 p. — (Higher education: Bachelor's degree). - ISBN 978-5-8199-0757-3. - Text : electronic. - URL: https://znanium.com/catalog/product/1062374 .

additional literature

1. Suzi, R. A. The Python programming language: a tutorial / R. A. Suzi. - 3rd ed. - Moscow: Internet University of Information Technologies (INTUIT), IP Ar Media, 2020. - 350 p. — ISBN 978-5-4497-0705-5. - Text: electronic // Digital educational resource IPR SMART: [website]. — URL: https://www.iprbookshop.ru/97589.html
2. McKinney, W. Python and Data Analysis / W. McKinney; translation from English by A. A. Slinkin. - 2nd ed., Rev. and additional - Moscow: DMK Press, 2020. - 540 p. — ISBN 978-5-97060-590-5. — Text: electronic // Doe: electronic library system. — URL: https://e.lanbook.com/book/131721.
3. Abramov, G. V. Design and development of information systems: a textbook for free software / G. V. Abramov, I. E. Medvedkova, L. A. Korobova. - Saratov: Vocational education, 2020. - 169 p. — ISBN 978-5-4488-0730-5. - Text: electronic // Digital educational resource IPR SMART: [website]. — URL: https://www.iprbookshop.ru/88888.html

List of resources of the information and telecommunications network "Internet"

1. Python for data collection and analysis http://math-info.hse.ru/s21/n
2. Data collection and analysis in Python https://www.classcentral.com/course/data-collection-and-analysis-in-python-23228
3. Data analysis using Python https://habr.com/en/post/353050/

List of information technologies and software

Windows 10 Pro, Oracle VirtualBox, Ubuntu server 2020 LTS, Apache 2, MySQL, JpGraph, PHPMyAdmin

IX. METHODOLOGICAL INSTRUCTIONS FOR MASTERING THE DISCIPLINE

Successful mastering of the discipline involves the active work of students

in all classes of the classroom form: lectures and practices, performance of attestation

events. In the process of studying the discipline, the student needs to focus on the study of lecture material, preparation for practical exercises, the performance of control and creative work.

Mastering the discipline involves a rating system for assessing students' knowledge и provides on the part of the teacher the current control over the attendance of lectures by students, the preparation and implementation of all practical tasks,
performing all kinds of independent work.

Intermediate attestation in the discipline is a test with an assessment.

A student is considered certified in the discipline, provided that all types of current control and independent work provided for by the curriculum are performed.

The scale for assessing the formation of educational results in the discipline is presented in the fund of evaluation tools (FOS).

X. MATERIAL AND TECHNICAL SUPPORT OF THE DISCIPLINE

Training sessions in the discipline are held in rooms equipped with appropriate hardware and software.

The list of material, technical and software of the discipline is given in the table.

Logistics and software discipline

Name special premises and premises for independent work	Equipment of special rooms and premises for training lessons, self-study	List of licensed software. Details of the confirming document
Classrooms for conducting training sessions:		
690922, Primorsky region, Vladivostok, russian island, peninsula Saperny, village Ajax, 10, building D, D208/347, D303, D313a, D401, D453, D461, D518, D708, D709, D758, D761, D762, D765, D766, D771, D917, D918, D920, D925, D576, D807	The lecture hall is equipped whiteboard, audio player	IBM SPSS Statistics Premium campus edition. Supplier CJSC predictive solutions. Contract EA-442-15 dated 01/18/2016 d. License - indefinitely. SolidWorks Campus 500. Supplier Solid Works R. Agreement 15-04-101 dated December 23, 2015 License - indefinitely. ASCON Compass 3D v17. Provider Navik. Agreement 15-03-53 dated December 20, 2015 License - indefinitely. MathCad Education Universe Edition. Provider Soft Line Trade. Contract 15-03-49 dated 02.12.2015 License -

		indefinitely. Windows Edu Per Device 10 Education. Provider

		Microsoft. Agreement No. EA-261-18 dated June 30, 2018 Validity period contracts from 30.06.2018 Office Professional Plus 2019. Vendor Microsoft. Contract No. EA261-18 dated 06/30/2018 License - indefinitely. AutoCAD 2018. Autodesk vendor. Agreement No. 110002048940 dated 10/27/2018 Network, competitive. Term the validity of the contract from 27.10.2018 Sublicense Agreement Blackboard No. 2906/1 dated 06/29/2012
690922, Primorsky region, Vladivostok, russian island, peninsula Saperny, village Ajax, 10, building D, D229, D304, D306, D349, D350, D351, D352, D353, D403, D404, D405, D414, D434, D435, D453, D503, D504, D517, D522, D577, D578, D579, D580, D602, D603, D657, D658, D702, D704, D705, D707, D721, D722, D723, D735, D736, D764, D769, D770, D773, D810, D811, D906, D914, D921, D922, D923, D924, D926	Multimedia Audience: Projector Mitsubishi EW330U, Projection screen ScreenLine Trim White Ice, professional LCD panel 47", 500 cd/m2, Full HD M4716CCBA LG subsystem Document Camera CP355AF Avervision; video switching subsystem; audio switching subsystem and sound amplification; interactive management	IBM SPSS Statistics Premium campus edition. Supplier CJSC predictive solutions. Contract EA-442-15 dated 01/18/2016 d. License - indefinitely. SolidWorks Campus 500. Supplier Solid Works R. Agreement 15-04-101 dated December 23, 2015 License - indefinitely. ASCON Compass 3D v17. Provider Navik. Agreement 15-03-53 dated December 20, 2015 License - indefinitely. MathCad Education Universe Edition. Provider Soft Line Trade. Contract 15-03-49 dated 02.12.2015 License - indefinitely. Windows Edu Per Device 10 Education. Provider Microsoft. Agreement No. EA-261-18 dated June 30, 2018 Validity period contracts from 30.06.2018 Office Professional Plus 2019. Vendor Microsoft. Contract No. EA261-18 dated 06/30/2018 License - indefinitely. AutoCAD 2018. Autodesk vendor. Agreement No. 110002048940 dated 10/27/2018 Network, competitive. Term the validity of the contract from 27.10.2018 Sublicense Agreement Blackboard No. 2906/1 dated 06/29/2012

690922, Primorsky region, Vladivostok, russian island, peninsula Saperny, village Ajax, 10, building D, D207/346	Multimedia auditorium: Projector 3-chip DLP, 10 600 ANSI-lm, WUXGA 1 920x1200 (16:10) PT-DZ110XE Panasonic; screen 316x500 cm, 16:10 c el. driven; fastening wall-ceiling Elpro Large Electrol projecta; professional LCD panel 47", 500 cd/m2, Full HD M4716CCBA LG; document-video source subsystem CP355AF Avervision camera; subsystem video switching; subsystem audio switching and sound amplification; interactive control subsystem),	IBM SPSS Statistics Premium campus edition. Supplier CJSC predictive solutions. Contract EA-442-15 dated 01/18/2016 d. License - indefinitely. SolidWorks Campus 500. Supplier Solid Works R. Agreement 15-04-101 dated December 23, 2015 License - indefinitely. ASCON Compass 3D v17. Provider Navik. Agreement 15-03-53 dated December 20, 2015 License - indefinitely. MathCad Education Universe Edition. Provider Soft Line Trade. Contract 15-03-49 dated 02.12.2015 License - indefinitely. Windows Edu Per Device 10 Education. Provider Microsoft. Agreement No. EA-261-18

		dated June 30, 2018 Validity period contracts from 30.06.2018 Office Professional Plus 2019. Vendor Microsoft. Contract No. EA261-18 dated 06/30/2018 License - indefinitely. AutoCAD 2018. Autodesk vendor. Agreement No. 110002048940 dated 10/27/2018 Network, competitive. Term the validity of the contract from 27.10.2018 Sublicense Agreement Blackboard No. 2906/1 dated 06/29/2012
690922, Primorsky region, Vladivostok, russian island, peninsula Saperny, village Ajax, 10, building D, D226	Multimedia Audience: Projector Mitsubishi EW330U, Projection screen ScreenLine Trim White Ice, professional LCD panel 47", 500 cd/m2, Full HD M4716CCBA LG subsystem video switching; subsystem audio switching and sound amplification; interactive control subsystem), D362 (professional LCD panel 47", 500 cd/m2, Full HD M4716CCBA LG, subsystem audio switching and sound amplification; Computer class for 15 seats	IBM SPSS Statistics Premium campus edition. Supplier CJSC predictive solutions. Contract EA-442-15 dated 01/18/2016 d. License - indefinitely. SolidWorks Campus 500. Supplier Solid Works R. Agreement 15-04-101 dated December 23, 2015 License - indefinitely. ASCON Compass 3D v17. Provider Navik. Agreement 15-03-53 dated December 20, 2015 License - indefinitely. MathCad Education Universe Edition. Provider Soft Line Trade. Contract 15-03-49 dated 02.12.2015 License - indefinitely. Windows Edu Per Device 10 Education. Provider Microsoft. Agreement No. EA-261-18 dated June 30, 2018 Validity period contracts from 30.06.2018 Office Professional Plus 2019. Vendor Microsoft. Contract No. EA261-18 dated 06/30/2018 License - indefinitely. AutoCAD 2018. Autodesk vendor. Agreement No. 110002048940 dated 10/27/2018 Network, competitive. Term the validity of the contract from 27.10.2018 Sublicense Agreement Blackboard No. 2906/1 dated 06/29/2012
		IBM SPSS Statistics Premium campus edition. Supplier CJSC predictive solutions. Contract EA-442-15 dated 01/18/2016 d. License - indefinitely.

690922, Primorsky region, Vladivostok, russian island, peninsula Saperny, village Ajax, 10, building D, D447, D448, D449, D450, D451, D452, D502, D575	Multimedia Audience: Projector Mitsubishi EW330U, Projection screen ScreenLine Trim White Ice Subsystem Document Camera CP355AF Avervision; video switching subsystem; audio switching subsystem and sound amplification; interactive management	SolidWorks Campus 500. Supplier Solid Works R. Agreement 15-04-101 dated December 23, 2015 License - indefinitely. ASCON Compass 3D v17. Provider Navik. Agreement 15-03-53 dated December 20, 2015 License - indefinitely. MathCad Education Universe Edition. Provider Soft Line Trade. Contract 15-03-49 dated 02.12.2015 License - indefinitely. Windows Edu Per Device 10 Education. Provider Microsoft. Agreement No. EA-261-18 dated June 30, 2018 Validity period

		contracts from 30.06.2018 Office Professional Plus 2019. Vendor Microsoft. Contract No. EA261-18 dated 06/30/2018 License - indefinitely. AutoCAD 2018. Autodesk vendor. Agreement No. 110002048940 dated 10/27/2018 Network, competitive. Term the validity of the contract from 27.10.2018 Sublicense Agreement Blackboard No. 2906/1 dated 06/29/2012
690922, Primorsky region, Vladivostok, russian island, peninsula Saperny, village Ajax, 10, building D, D446, D604, D656, D659, D737, D808, D809, D812	Multimedia Audience: Projector Mitsubishi EW330U, Projection screen ScreenLine Trim White Ice, professional LCD panel 47", 500 cd/m2, Full HD M4716CCBA LG subsystem Document Camera CP355AF Avervision; video switching subsystem; audio switching subsystem and sound amplification; interactive management; Computer class; Working place: Computers (Solid State Disk - 128 GB; Hard disk - volume 1000 GB; Form factor - Tower); completed keyboard, mouse. AOS monitor i2757Fm; set of cords nutrition) Model - M93r 1; language class, computers are equipped with software complex Sanako study 1200	IBM SPSS Statistics Premium campus edition. Supplier CJSC predictive solutions. Contract EA-442-15 dated 01/18/2016 d. License - indefinitely. SolidWorks Campus 500. Supplier Solid Works R. Agreement 15-04-101 dated December 23, 2015 License - indefinitely. ASCON Compass 3D v17. Provider Navik. Agreement 15-03-53 dated December 20, 2015 License - indefinitely. MathCad Education Universe Edition. Provider Soft Line Trade. Contract 15-03-49 dated 02.12.2015 License - indefinitely. Windows Edu Per Device 10 Education. Provider Microsoft. Agreement No. EA-261-18 dated June 30, 2018 Validity period contracts from 30.06.2018 Office Professional Plus 2019. Vendor Microsoft. Contract No. EA261-18 dated 06/30/2018 License - indefinitely. AutoCAD 2018. Autodesk vendor. Agreement No. 110002048940 dated 10/27/2018 Network, competitive. Term the validity of the contract from 27.10.2018 Sublicense Agreement Blackboard No. 2906/1 dated 06/29/2012
	Multimedia Audience: Projector	IBM SPSS Statistics Premium campus edition. Supplier CJSC predictive solutions. Contract EA-442-15 dated 01/18/2016 d. License - indefinitely.

690922, Primorsky region, Vladivostok, russian island, peninsula Saperny, village Ajax, 10, building D, D501, D601	Mitsubishi EW330U, Projection screen ScreenLine Trim White Ice, professional LCD panel 47", 500 cd/m2, Full HD M4716CCBA LG subsystem Document Camera CP355AF Avervision; video switching subsystem; audio switching subsystem and sound amplification; interactive management; Computer class for 26 work places. Workplace: Monoblock Lenovo C360G-i34164G500UDK	SolidWorks Campus 500. Supplier Solid Works R. Agreement 15-04-101 dated December 23, 2015 License - indefinitely. ASCON Compass 3D v17. Provider Navik. Agreement 15-03-53 dated December 20, 2015 License - indefinitely. MathCad Education Universe Edition. Provider Soft Line Trade. Contract 15-03-49 dated 02.12.2015 License - indefinitely. Windows Edu Per Device 10 Education. Provider Microsoft. Agreement No. EA-261-18 dated June 30, 2018 Validity period contracts from 30.06.2018 Office

		Professional Plus 2019. Vendor Microsoft. Contract No. EA261-18 dated 06/30/2018 License - indefinitely. AutoCAD 2018. Autodesk vendor. Agreement No. 110002048940 dated 10/27/2018 Network, competitive. Term the validity of the contract from 27.10.2018
		Sublicense Agreement Blackboard No. 2906/1 dated 06/29/2012

Rooms for independent work:

690922, Primorsky Territory, Vladivostok, Russky Island, Saperny Peninsula, Ayaks village, 10, building A, A1042
classroom for independent work of students

Monoblock Lenovo C360G-i34164G500UDK - 115 pcs.; Integrated touch Polymedia FlipBox display; Xerox WorkCentre 5330 (WC5330C) 4-Tray Color Scanner-to-E-mail Copier-Printer-Scanner (WC5330C; Xerox WorkCentre 7530 Full-Color Copier-Printer-Scanner (WC7530CPS) ; Focus-80 Blue Braille display; Lenovo ThinkCentre E73z workstation - 3 pcs.; ONYX Swing-Arm PC edition video magnifier; Touch Memo digital marker-voice recorder; PEarl portable flat-print text reader; Scanning and reading machine for the blind and visually impaired SARA users; Braille printer Emprint SpotDot - 2 pcs.; Braille printer Everest - D V4; Video enlarger ONYX Swing-Arm PC edition; Video enlarger Topaz 24" XL stationary electronic; Teaching system for children tactile and speech, or for people with disabilities; Portable handheld video magnifier RUBY – 2 pcs.; Screen Samsung S23C200B; Marker-dictaphone Touch Memo digital.

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