



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



WORKING PROGRAM OF THE DISCIPLINE

Fundamentals of data management

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.

Compiled by: senior lecturer Smelik V.V., 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

Fundamentals of data management

The total labor intensity of the discipline is 3 credits / 108 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 an exam. The curriculum provides for lectures in the amount of 16 hours, laboratory work in the amount of 48 hours (including 24 hours in an interactive form), and hours are allocated for independent work of the student - 44 hours (including 27 hours for preparing for exams) .

Implementation language: Russian.

Target:

To form the competencies of the database (DB) design methodology, the characteristics of modern database management systems (DBMS), language tools, modern database organization technologies, and the acquisition of skills in working in the DBMS environment.

Tasks:

- mastering the theoretical provisions of the database design methodology;
- practical mastering of modern technologies of database organization;
- acquisition of skills of work in the DBMS environment.

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 of indicator assessment (learning outcome by discipline)
production technologists chessky	PC-4 Capable develop software provision with using languages programming, definitions and manipulation data	PC-4.1 Capable describe the requirements for programmatic provision from the point view of architecture	Knows the architecture, device and functioning of modern information systems Ability to analyze architecture device and operation modern information systems Proficient in analysis architecture, devices and functioning information systems for the purpose choosing the optimal information configuration systems
		PC-4.2 Applies methods and means design software provision, data structures, databases	Knows the basic methods and means software design ensure Ability to apply methods design tools software,

		data, program interfaces	data structures, databases, software interfaces Has application skills design methods and tools software, data structures, databases,
--	--	--------------------------------	--

			software interfaces
		PC-4.3 Develops integrated software security, interfaces interactions	Knows tools and techniques development of an integrated software Ability to design and create integrated software software, interfaces interactions Possesses development skills integrated software software, interfaces interactions
production technologists chessky	PC-5 Capable conduct testing, prepare and apply test sets data	PC-5.1 Understands process testing software provision and life cycle software product	Knows basic methods software testing ensure Can analyze the process software testing ensure Proficient in analysis testing process software and software life cycle product
		PC-5.2 Capable enjoy special programmatic provision for automated testing	Knows the main types special software provision for automated testing Able to customize special software provision for automated testing Has the skills to use special software provision for automated testing
		PC-5.3 Capable compare and analyze, on one's own find information necessary for recovery systems after failure	Knows the general principles system failure recovery Can match and analyze on your own find information, needed to restore systems after failure Proficient in analysis and search for information needed for system recovery after failure

production tvenno- technologist s chesky	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 digital footprint, methods data preprocessing Ability to collect and digital data preprocessing trace Skilled in collecting and digital data preparation
--	---	--	---

			trace for analysis
		PC-7.2 Checks hypotheses and reveal patterns in data arrays	Knows processing algorithms data, software, libraries and frameworks for data analysis Ability to apply algorithms data processing, specialized software data analysis software Possesses verification skills hypotheses and search for patterns in data arrays
		PC-7.3 renders analysis results digital footprint	Knows visual techniques data display, specialized software visualization software data Knows how to apply specialized software software, libraries and visualization frameworks data Possesses visualization skills digital trace
production technologists chessky	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 the sources of big data, storage and processing technologies big data Able to extract cleaning, integration and large volume conversion data Possesses skills of definition big data sources for analysis, extraction skills, data validation and cleaning
		PC-8.2 Analyzes and choose methods and instrumental analysis tools big data	Knowledge of theoretical and applied basics of big data analysis, modern methods and tools big data analysis Ability to select appropriate methods and instrumental tools for analyzing large data Proficient in comparative analysis and informed choice methods and instrumental big data analytics
		PC-8.3 Conducts analytical work with using	Knowledge of theoretical and applied basics of big data analysis, data analysis technologies Ability to plan and execute

		big technologies data	analytical work with technology big data Has the skills to conduct analytical work with technology big data
--	--	--------------------------	---

I.Goals and objectives of mastering the discipline:

Target:

To form the competencies of the database (DB) design methodology, the characteristics of modern database management systems (DBMS), language tools, modern database organization technologies, and the acquisition of skills in working in the DBMS environment.

Tasks:

- mastering the theoretical provisions of the database design methodology;
- practical mastering of modern technologies of database organization;
- acquisition of skills of work in the DBMS environment.

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

The total labor intensity of the discipline is 3 credits / 108 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 an exam. The curriculum provides for lectures in the amount of 16 hours, laboratory work in the amount of 48 hours (including 24 hours in an interactive form), and hours are allocated for independent work of the student - 44 hours (including 27 hours for preparing for exams) .

Task type	Code and name professional competencies (result of development)	Code and name indicator achievements competencies	Name of indicator assessment (learning outcome by discipline)
production	PC-4 Capable	PC-4.1 Capable	Knows the architecture, device and functioning of modern information systems
technologists	develop software	describe the requirements for programmatic provision from the point view of architecture	Ability to analyze architecture device and operation modern information systems Proficient in analysis architecture, devices and functioning information systems for the purpose choosing the optimal information configuration systems
chessky	provision with using languages programming, definitions and manipulation data	PC-4.2 Applies methods and means design software provision, data structures, databases data, program interfaces	Knows the basic methods and means software design ensure Ability to apply methods design tools software, data structures, databases, software interfaces Has application skills

		design methods and tools software, data structures, databases, software interfaces
	PC-4.3 Develops integrated	Knows tools and techniques development of an integrated software

		software security, interfaces interactions	Ability to design and create integrated software software, interfaces interactions Possesses development skills integrated software software, interfaces interactions
production technologists chessky	PC-5 Capable conduct testing, prepare and apply test sets data	PC-5.1 Understands process testing software provision and life cycle software product	Knows basic methods software testing ensure Can analyze the process software testing ensure Proficient in analysis testing process software and software life cycle product
		PC-5.2 Capable enjoy special programmatic provision for automated testing	Knows the main types special software provision for automated testing Able to customize special software provision for automated testing Has the skills to use special software provision for automated testing
		PC-5.3 Capable compare and analyze, on one's own find information necessary for recovery systems after failure	Knows the general principles system failure recovery Can match and analyze on your own find information, needed to restore systems after failure Proficient in analysis and search for information needed for system recovery after failure
production technologists	PC-7 Capable analyze digital footprint	PC-7.1 Collects and prepares digital data	Knows the structure and sources digital footprint, methods data preprocessing

chesky	person (group people) and information and communication systems	trace for holding analysis	Ability to collect and digital data preprocessing trace Skilled in collecting and digital data preparation trace for analysis
		PC-7.2 Checks hypotheses and reveal patterns in data arrays	Knows processing algorithms data, software, libraries and frameworks for data analysis

			<p>Ability to apply algorithms data processing, specialized software data analysis software Possesses verification skills hypotheses and search for patterns in data arrays</p>
		<p>PC-7.3 renders analysis results digital footprint</p>	<p>Knows visual techniques data display, specialized software visualization software data Knows how to apply specialized software software, libraries and visualization frameworks data Possesses visualization skills digital trace</p>
<p>production technologists cheshky</p>	<p>PC-8 Capable conduct analytical research with application big technologies data</p>	<p>PC-8.1 Defines sources of great data for analysis, retrieve, check and clear the data</p>	<p>Knows the sources of big data, storage and processing technologies big data Able to extract cleaning, integration and large volume conversion data Possesses skills of definition big data sources for analysis, extraction skills, data validation and cleaning</p>
		<p>PC-8.2 Analyzes and choose methods and instrumental analysis tools big data</p>	<p>Knowledge of theoretical and applied basics of big data analysis, modern methods and tools big data analysis Ability to select appropriate methods and instrumental tools for analyzing large data Proficient in comparative analysis and informed choice methods and instrumental big data analytics</p>
		<p>PC-8.3 Conducts analytical work with using big technologies data</p>	<p>Knowledge of theoretical and applied basics of big data analysis, data analysis technologies Ability to plan and execute analytical work with technology big data Has the skills to conduct analytical work with</p>

		technology big data
--	--	------------------------

II. The complexity of the discipline

The total labor intensity of the discipline is 3 credit
units (108

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		
1	Topic 1 Theory of relational databases		2	6				17	27	
2	Topic 2 Basic concepts. relational model.		2	6						
3	Topic 3 Normal Forms relations		2	6						
4	Topic 4 Analysis decomposed relations		2	6						
5	Topic 5 Transactions and database integrity		2	6						
6	Topic 6 Transactions and parallelism		2	6						
7	Topic 7 Isolation levels		2	6						
8	Topic 8 Transactions and data recovery		2	6						
	<i>Total</i>		16	48				17	27	<i>exam</i>

IV. CONTENT OF THE THEORETICAL PART OF THE COURSE

Topic 1 Theory of relational databases
 Topic 2 Basic concepts. relational model.
 Topic 3 Normal forms of relations
 Topic 4 Decomposed Relationship Analysis Topic
 5 Transactions and Database Integrity Topic 6
 Transactions and Concurrency Topic 7 Isolation
 Levels
 Topic 8 Transactions and Data Recovery

v. CONTENT OF THE PRACTICAL PART OF THE COURSE

Practical lessons

Practical classes are not provided.

Laboratory works

LABORATORY WORK 1. Building entity-relationship models for the selected subject area

LABORATORY WORK 2. Building a structural database model

LAB 3 - Redesigning the Logical Database Model

LABORATORY WORK 4. Logical design of a relational database. Create tables and populate tables

VI.CONTROL OF ACHIEVEMENT OF COURSE OBJECTIVES

No. p/p	controlled sections/topics disciplines	Code and Name indicator achievements	Learning Outcomes	Estimated facilities *	
				Current control b	Intermedi a weft certificate tion
1	All sections and Topics.	PC-4.1 Capable describe requirements to programmatic ensure with points of view architecture	Knows architecture device and functioning contemporary information systems Can analyze architecture, device and functioning contemporary information systems Proficient in analysis architecture, devices and functioning information systems with purpose of choice optimal configuration information system	UO-1 PR-7	-
		PC-4.2 Applies methods and means design software provision, data structures, databases, program interfaces	Knows basic techniques and design tools software Ability to apply methods design tools software support, structures data, databases, software interfaces Skilled application of methods and design tools software support, structures data, databases, software interfaces	UO-1 PR-7	-
		PC-4.3	Knows tools and	UO-1	-

	Develops integrated software security,	development methodology integrated software Ability to design and	PR-7	
--	--	---	------	--

		interfaces interactions	create an integrated software, interfaces interactions Skilled development integrated software software, interfaces interactions		
		PC-5.1 Understands process testing software provision and life cycle software product	Knows basic methods testing software Can analyze testing process software Proficient in analysis testing process software and life cycle software product	UO-1 PR-7	-
		PC-5.2 Capable enjoy special programmatic provision for automated th testing	Knows the main types special software for automated testing Can perform setting a special software for automated testing Skilled use special software for automated testing	UO-1 PR-7	-
		PC-5.3 Capable compare and analyze, on one's own find information necessary for recovery systems after failure	Knows the general principles system recovery after crash Can match and analyze, independently find information necessary for system recovery after crash Proficient in analysis and search for information necessary for	UO-1 PR-7	-

			system recovery after crash		
		PC-7.1 Collects and	knows the structure and	UO-1	-

	prepares digital data trace for holding analysis	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 processing algorithms data, specialized software for data analysis Skilled hypothesis testing and search patterns in data arrays	UO-1 PR-7	-
	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	UO-1 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	UO-1 PR-7	-
	PC-8.2 Analyzes and	Knows theoretical and applied fundamentals	UO-1 PR-7	-

	chooses methods And instrumental analysis tools big data	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		
		PC-8.3 Conducts analytical work with using technologies big data	Knows theoretical and applied fundamentals big data analysis, analysis technologies data Can plan and conduct analytical work using big technologies data Skilled analytical works using big technologies data	UO-1 PR-7	-
	exam	PC-4.1; PC-4.2; PC-4.3; PC-5.1; PC-5.2; PC-5.3; 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.

Preparation of reports on laboratory and practical classes, term paper

according to 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 the 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

1.

Date/Due dates

During the semester



View
independent
work

Preparing for
classes:

time for
performance
17 hours

Approximate norms

form of control

		studying literature, decor results works/tasks.		
2.	16-18 weeks of the semester	Preparing for exam.	27 hours	Exam
	Total		44 hours	

Independent work in the discipline includes preparation for laboratory classes (literature study) and preparation for intermediate certification in the discipline.

It is recommended to use various possibilities for working with literature: funds scientific library of FEFU (<http://www.dvfu.ru/library/>) and other leading universities of the country, and also available for use scientific library systems.

VIII. REFERENCES AND INFORMATIONAL AND METHODOLOGICAL ENFORCING DISCIPLINE

Main literature

1. Shvetsov, V.I. Databases [Electronic resource] / V.I. Shvetsov. — Electron. text data. - M. : Internet University of Information Technologies (INTUIT), 2016. - 218 p.
2. ... Medvedkova, I. E. Databases [Electronic resource]: textbook / I. E. Medvedkova, Yu. V. Bugaev, S. V. Chikunov. — Electron. text data. - Voronezh: Voronezh State University of Engineering Technologies, 2014. - 104 p.
3. ... Moldovanova, O. V. Information systems and databases [Electronic resource]: study guide / O. V. Moldovanova. — Electron. text data. - Novosibirsk: Siberian State University of Telecommunications and Informatics, 2014. - 178 p.

additional literature

1. ... Malykhina Maria. Databases: basics, design, use: textbook / Malykhina M. - St. Petersburg: BHV-Petersburg, 2004. - 499 p.
2. ... Minchenkov I.N. Practical work with databases in the OpenOffice.org Base: tutorial / Minchenkov I.N. - Lipetsk: Lipetsk State Technical University, EBS DIA, 2012. - 49 p.
3. ... Fundamentals of modern databases: methodological development for laboratory work (No. 1-3) / - Lipetsk: Lipetsk State Technical University, EBS DIA, 2013. - 37 p.

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

1. Site of the SQL.ru project: <http://www.sql.ru/>
2. Database Classics. Information and analytical portal:

<http://citforum.ru/database/classics/>

3. "Databases: Tutorials and Reviews". Information and analytical portal:

<http://citforum.ru/database/edu.shtml>

4. "Modeling and reengineering of business processes". Website of the consulting company "Intellectual Solutions": http://www.iso14001.ru/?p=18&row_id=22

5. "Business processes. Approaches to optimization, modeling and reengineering". Website of the Informicus Company:

<http://www.informicus.ru/Default.aspx?SECTION=4&id=92>

List of information technologies and software

When implementing the educational process in the discipline, the general software of computer classrooms is used (Windows 10, Microsoft Office и etc.), as well as specialized data management software - MS SQL Server.

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 must focus on elaboration of lecture material, preparation for practical exercises, implementation 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.

An intermediate certification in the discipline is an exam.

A student is considered certified in the discipline, subject to the fulfillment of all types of current control and independent work provided for educational program.

The scale for assessing the formation of educational results in the discipline presented in the fund of appraisal funds (FOS).

X. MATERIAL AND TECHNICAL SUPPORT OF THE DISCIPLINE Training sessions in the discipline are held in rooms equipped with

appropriate hardware and software.

List of material, technical and software discipline
shown 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:		
<p>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</p>	<p>The lecture hall is equipped whiteboard, audio player</p>	<p>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</p>
<p>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,</p>	<p>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</p>	<p>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 -</p>

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,	Aversion; video switching subsystem; audio switching subsystem and sound amplification; interactive management	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
--	---	---

D926		<p>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</p> <p>Sublicense Agreement Blackboard No. 2906/1 dated 06/29/2012</p>
<p>690922, Primorsky region, Vladivostok, russian island, peninsula Saperny, village Ajax, 10, building D, D207/346</p>	<p>Multimedia auditorium: Projector 3-chip DLP, 10 600 ANSI-lm, WUXGA 1 920x1 200 (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),</p>	<p>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</p> <p>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</p> <p>Sublicense Agreement Blackboard No. 2906/1 dated 06/29/2012</p>
	<p>Multimedia Audience: Projector Mitsubishi EW330U, Projection screen ScreenLine Trim White Inc. professional</p>	<p>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</p>

<p>690922, Primorsky region, Vladivostok, russian island, peninsula Saperny, village Ajax, 10, building D, D226</p>	<p>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</p>	<p>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</p>
---	---	---

		<p>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</p> <p>Sublicense Agreement Blackboard No. 2906/1 dated 06/29/2012</p>
<p>690922, Primorsky region, Vladivostok, russian island, peninsula Saperny, village Ajax, 10, building D, D447, D448, D449, D450, D451, D452, D502, D575</p>	<p>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</p>	<p>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</p> <p>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</p> <p>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</p> <p>Sublicense Agreement Blackboard No. 2906/1 dated 06/29/2012</p>
	<p>Multimedia Audience: Projector Mitsubishi EW330U, Projection screen ScreenLine Trim White Ice, professional LCD panel 47", 500 cd/m2, Full HD</p>	<p>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.</p>

<p>690922, Primorsky region, Vladivostok, russian island, peninsula Saperny, village Ajax, 10, building D, D446, D604, D656, D659, D737, D808, D809, D812</p>	<p>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</p>	<p>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 -</p>
---	---	---

		<p>indefinitely. AutoCAD 2018. Autodesk vendor. Agreement No. 110002048940 dated 10/27/2018 Network, competitive. Term the validity of the contract from 27.10.2018</p> <p>Sublicense Agreement Blackboard No. 2906/1 dated 06/29/2012</p>
<p>690922, Primorsky region, Vladivostok, russian island, peninsula Saperny, village Ajax, 10, building D, D501, D601</p>	<p>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 for 26 work places. Workplace: Monoblock Lenovo C360G-i34164G500UDK</p>	<p>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</p> <p>Sublicense Agreement Blackboard No. 2906/1 dated 06/29/2012</p>
<p>Rooms for independent work:</p>		
<p>690922, Primorsky region, Vladivostok,</p>	<p>Monoblock Lenovo C360G-i34164G500UDK - 115 pieces; Integrated touch Polymedia FlipBox display; copier-printer-color scanner to e-mail with 4 trays Xerox WorkCentre 5330 (WC5330C; Full Color copier-printer-scanner Xerox WorkCentre 7530 (WC7530CPS Equipment for disabled people and people with disabilities health features: Braille display</p>	<p>Microsoft Windows 7 Pro Magic 12.0 Pro, Jaws for Windows 15.0 Pro, Openbook 9.0, Duxbury Braille Translator, Dolphin Guide (Contract No. A238-14/2); Non-exclusive rights to use of Microsoft software user workstations (contract EA-261-18 dated</p>

<p>russian island, peninsula Saperny, village Ajax, 10, building A, A1042 auditorium for independent student work</p>	<p>Focus-40 Blue - 3 pcs.; Braille display Focus-80 Blue; Lenovo Workstation ThinkCentre E73z - 3 pcs.; Videos magnifier ONYX Swing-Arm PC edition; Marker- voice recorder Touch Memo digital; Portable Reader flat-printed texts PEarl; Scanning and reading machine for blind and visually impaired users SARA; Braille printer Emprint SpotDot - 2 PC.; Braille Printer Everest - D V4; Video magnifier ONYX Swing-Arm PC edition; Video magnifier Topaz 24" XL stationary electronic; educational</p>	<p>02.08.2018): - license for client operating room system; - package license office products to work with documents including format.docx,.xlsx,.vsd,.ppt.; - connection license user to server operating systems used in FEFU: Microsoft Windows Server 2008/2012; - license to connect to Microsoft Exchange Server Enterprise; - license for law</p>
---	---	--

	<p>system for children tactile-speech, or for people with disabilities health; RUBY Hand Video Magnifier portable - 2 pcs.; Samsung screen S23C200B; Touch Memo Marker Voice Recorder digital.</p>	<p>connection to the internal information system document management and portal with search capability lots of information remote and local repositories, resources, information libraries, including portal storages, used in FEFU: Microsoft SharePoint; - license for the right system connections centralized management workstations, used in FEFU: Microsoft system center.</p>
--	--	---