Federal State Budgetary Educational Institution of Education Volgograd State Medical University of the Ministry of Health of the Russian Federation

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## HIGHER EDUCATION PROGRAMME Pediatrics

Specialty 31.05.02 Pediatrics Specialist programme

Pediatrician qualification

Mode of study Full-time

### 1. General provisions

## 1.1. Higher education programme in Pediatrics implemented at FSBEI of HE VolgSMU of the Ministry of Health for specialty 31.05.02 Pediatrics

The higher education programme in Pediatrics implemented at FSBEI of HE VolgSMU of the Ministry of Health for specialty 31.05.02 Pediatrics (hereinafter specialist HEP) is a complex of documents developed and approved by the educational institution in agreement with the requirements of the State Federal Educational Standard for higher education in specialty 31.05.02 Pediatrics (of September 15, 2015 registration No 38880) (hereinafter SFES HE) and with reference to recommendations from employer representatives.

The specialist HEP is a complex of basic characteristics of the course of study: its workload, content, anticipated outcomes, as well as organizational and teaching prerequisites, forms of evaluation represented as a curriculum, academic schedule, a set of course syllabi, programmes of on-the-job training, other components, as well as materials for student assessment and teaching aids.

In the area of moral development the objectives of specialist HEP are instilling social and personal traits; the students should strive to become determined, industrious, responsible, organized, communicative, tolerant, culturally accomplished, with a civic spirit.

In the area of training the general objectives od specialist HEP are as follows:

- training students in the basics of humanitarian, social, economic, mathematical sciences and natural science including biomedical and ecological studies, as well as in the subject—matter of clinical courses;
- on-the-job training of students;
- developing universal cultural and general professional competencies envisaged by the SFES HE as well as professional competencies in appropriate spheres like medical function, organizational and managerial activities and research;
- receiving higher professional education (specialist programme) in specialty 31.05.02
   Pediatrics which makes the graduate prepared to meet the requirements of occupational standard "District pediatrician".

## 1.2. Regulatory instruments for development of higher education programme in pediatrics for specialty 31.05.02 Pediatrics

The legislative and regulatory framework for developing the specialist HEP comprises the following documents:

- Federal law "On education in the Russian Federation" of December 29, 2012 No 273-FZ (revised and expanded);
- Federal State Educational Standard of Higher Education for specialty 31.05.02 Pediatrics approved by the order of the Ministry of Education and Science of the Russian Federation of August 17, 2015 No 853 (of September 15, 2015 registration No 38880);
- Occupational standard "District pediatrician" approved by the order of the Ministry of Labour of the Russian Federation of March 27, 2017 No 306n (of April 17, 2017 registration No 46397);
- Order of the Ministry of Education of the Russian Federation of April 5, 2017 No 301 "On establishing the procedure for organization and implementation of training and education in educational programmes of higher education: Bachelor, Specialist and Master programmes";
- Order of the Ministry of Education and Science of the Russian Federation of September 12,

- 2013 No 1061 "On establishing the index of specialties degrees in higher education" (revised and expanded);
- Regulatory and procedural guidelines from the Ministry of Education and Science of the Russian Federation;
- Regulations on the procedure of developing and approving educational programmes of higher education for Bachelor, Specialist and Master programmes (approved by the VolgSMU Chancellor, July 3, 2017);
- Charter of the FSBEI of HE VolgSMU of the Ministry of Health.

### 1.3. Overview of higher education programme in Pediatrics for specialty 31.05.02 Pediatrics

### 1.3.1. Objectives of the specialist EP

In the area of moral development the objectives of specialist HEP are instilling social and personal traits; the students should strive to become determined, industrious, responsible, organized, communicative, tolerant, culturally accomplished, with a civic spirit.

In the area of training the general objectives od specialist HEP are as follows:

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- on-the-job training of students;
- developing universal cultural and general professional competencies envisaged by the SFES
  HE as well as professional competencies in appropriate spheres like medical function,
  organizational and managerial activities and research;
- receiving higher professional education (specialist programme) in specialty 31.05.02
   Pediatrics which makes the graduate prepared to meet the requirements of occupational standard "District pediatrician".

### 1.3.2. Duration of the course of study in higher educational programme in Pediatrics

The duration of the course of study for the specialist HEP (full time) including the vacations granted after passing State Final Examination, irrespective of implemented educational technologies, is six years.

## 1.3.3. Credit value of higher educational programme in Pediatrics for specialty 31.05.02 Pediatrics

The specialist programme comprises 360 credit units (hereinafter CU) irrespective of the mode of study, educational technology, реализации программы специалитета с использованием сетевой формы, whether the student is following an individua education plan or an accelerated education plan. In the full-time mode of study the credit value of specialist programme is 60 CU in one academic year. One credit unit corresponds to 36 academic hours. The credit value of one semester (provided the academic year is comprised of two semesters) is 30 credit units. The credit value covers all types of in-class work, self-study, on-the-job training and the time allotted for assessment of students' performance in the specialist HEP.

Structure of specialist HEP		SFES HE, credit units	VolgSMU, credit
			units
Section 1	Courses (modules)	324-330	328
	Compulsory part	291-294	292
	Elective part	30-39	36
Section 2	On-the-job training including	27-33	29
	students' research		
	Compulsory part	27-33	29
Section 3	State final examination	3	3
	Compulsory part	3	3
Credit value of specialist HEP		360	360

## 1.4. Requirements to applicants' educational background for higher education programme for specialty 31.05.02 Pediatrics

Only individuals with complete secondary general education are allowed to enroll for the specialist HEP. The admission policy is formulated annually by the University on the basis of Regulation on Admission to Higher Educational Institutions approved by an order of the Ministry for Education and Science of the Russian Federation.

### 2. Overview of higher education programme in Pediatrics for specialty 31.05.02 Pediatrics

## 2.1. Updating the higher education programme in Pediatrics with consideration to the occupational standard

Training in the higher education programme in pediatrics for specialty 31.05.02 Pediatrics (specialist programme) takes into account the requirements of the occupational standard "District pediatrician" approved by order of Ministry of Labor and Social Protection of the Russian Federation of March 27, 2017 No 306n (of April 17, 2017 registration No 46397) and effective from April 29, 2017.

Mission of programme	Name of programme	Qualification level number	Name of selected occupational standard
Putting in place the conditions necessary for students to acquire knowledge, skills and experience required for their professional activity	Higher education programme for specialty 31.05.02 Pediatrics (specialist programme)	7	Occupational standard "District pediatrician"

### 2.2. Area of graduates' professional activity

The area of professional activity of the specialist HEP graduates consists in healthcare provision by way of giving medical care to children.

### 2.3. Objects of graduates' professional activity

- individuals aged 0 to 18 years (hereinafter children, patients);
- parents (legal representatives) of children;
- population;

- the totality of facilities and technologies ensuring healthcare provision to children.

### 2.4. Types of graduates' professional activity

- medical activity;
- organizational and managerial activity;
- research.

### 2.5. Areas of higher education programme in Pediatrics

Since the educational standard does not envisage any specialization, the specialist HEP is geared towards activities within the specialty framework (medical, organizational and managerial activities, and research) and corresponds to the Pediatrics specialty on the whole.

### 2.6. Objectives of graduates' professional activity

#### **Medical activity:**

- prevention of disease among the population through implementing preventive and antiepidemic measures;
- doing preventive medical checkups, screening exams, follow-up monitoring of children;
- collecting data and doing medical statistical analysis of health indicators of children;
- diagnosis of diseases and pathological conditions in children;
- diagnosis of emergency states;
- diagnosis of pregnancy;
- carrying out temporary disability examination and participating in other types of medical expert review;
- providing primary premedical care to children in outpatient settings and in daycare facilities;
- providing primary medical care to children with sudden onset of acute conditions, exacerbation of acute condition that are not life—threatening and do not require emergency care;
- participating in emergency care for children with conditions requiring immediate medical attention;
- providing care in emergency situations, also participating in medical evacuation;
- participating in provision of rehabilitation and health resort treatment of children;
- educating the population, patients and their family members so as to motivate them to promote and maintain their health and the health of other people;
- educating children and their parents (legal representatives) about basic health-promoting hygiene which promotes prevention of disease and improves their health.

### Organizational and managerial activities:

 applying the basic principles of healthcare provision to children at healthcare institutions and their subdivisions:

- creating at healthcare institutions favorable conditions for the presence and staying of children and their parents (legal representatives) and for the work of the staff;
- keeping medical records at healthcare institutions;
- organization of medical expert review for children and teenagers;
- participating in assessment of the quality of healthcare provision to children;
- complying with the basic rules of information safety.

#### **Research:**

- analysis of scientific literature and official statistical reviews, participating in statistical analysis and public representation of research findings;
- participating in work towards ad hoc theoretical and applied research in the area of healthcare concerning diagnosis, treatment, rehabilitation and prophylaxis.

## Comparison of professional objectives in SFES HE and labour functions in occupational standard

SFES HE requirements	Occupational standard requirements	Conclusion
Professional objectives	General labour functions	
Medical activity	General labour function: Providing	
	care to children in outpatient	
	settings without round-the-clock	
	care and surveillance, also care at	
	home when making house calls	
Prevention of diseases in the populace	Provision of preventive measures,	in conformity
through provision of prophylactic and	including sanitary education, among	
antiepidemic measures	children and their parents (A/04.7)	
Carrying out preventive medical	Carrying out preventive measures	in conformity
checkups, screening, follow-up	including sanitary education, among	
monitoring of children	children and their parents (A/04.7)	
Collecting and doing medical	Organizing the activity of healthcare	in conformity
statistical analysis of data on health	personnel and keeping medical	
indices of children	records (A/05.7)	
Diagnosis of disease and pathological	Examination of children to make a	in conformity
conditions in children	diagnosis (A/01.7)	
Diagnosis of emergency states	Administering treatment to children	in conformity
	and monitoring its effectiveness and	
	safety (A/02.7)	
Diagnosis of pregnancy	Examination of children to make a	in conformity
	diagnosis (A/01.7)	
Carrying out temporary disability	Examination of children to make a	in conformity
examination and participating in other	diagnosis (A/01.7)	
types of medical expert review	Organizing the activity of healthcare	
	personnel and keeping medical	
	records (A/05.7)	
Providing primary premedical care to	Examination of children to make a	in conformity
children in outpatient settings and in	diagnosis (A/01.7)	
daycare facilities	Administering treatment to children	
	and monitoring its effectiveness and	

	safety (A/02.7)	
Providing primary medical care to children with sudden onset of acute conditions, exacerbation of acute condition that are not life—threatening	Administering treatment to children and monitoring its effectiveness and safety (A/02.7)	in conformity
and do not require emergency care  Participating in emergency care for children with conditions requiring immediate medical attention	Administering treatment to children and monitoring its effectiveness and safety (A/02.7)	in conformity
Providing care in emergency situations, also participating in medical evacuation	Administering treatment to children and monitoring its effectiveness and safety (A/02.7)	in conformity
Participating in provision of rehabilitation and health resort treatment of children	Implementing and monitoring the effectiveness of individual rehabilitation plans for children (A/03.7)	in conformity
Educating the population, patients and their family members so as to motivate them to promote and maintain their health and the health of other people	Carrying out preventive measures including sanitary education, among children and their parents (A/04.7)	in conformity
Educating children and their parents (legal representatives) about basic health-promoting hygiene which promotes prevention of disease and improves their health	Carrying out preventive measures including sanitary education, among children and their parents (A/04.7)	in conformity
Organizational and managerial activity		
Applying the basic principles of healthcare provision to children at healthcare institutions and their subdivisions	Organizing the activity of healthcare personnel and keeping medical records (A/05.7)	in conformity
Creating at healthcare institutions favorable conditions for the presence and staying of children and their parents (legal representatives) and for the work of the staff	Examination of children to make a diagnosis (A/01.7) Administering treatment to children and monitoring its effectiveness and safety (A/02.7)	in conformity
Keeping medical records at healthcare institutions	Organizing the activity of healthcare personnel and keeping medical records (A/05.7)	in conformity
Organization of medical expert review for children and teenagers	Examination of children to make a diagnosis (A/01.7)	in conformity
Participating in assessment of the quality of healthcare provision to children	Examination of children to make a diagnosis (A/01.7)	in conformity
Complying with the basic rules of information safety	Examination of children to make a diagnosis (A/01.7) Administering treatment to children and monitoring its effectiveness and safety (A/02.7) Implementing and monitoring the effectiveness of individual	in conformity

	rehabilitation plans for children (A/03.7) Carrying out preventive measures including sanitary education, among children and their parents (A/04.7) Organizing the activity of healthcare personnel and keeping medical	
	records (A/05.7)	
Research		in conformity
Analysis of scientific literature and official statistical reviews, participating in statistical analysis and public representation of research findings	Examination of children to make a diagnosis (A/01.7) Administering treatment to children and monitoring its effectiveness and safety (A/02.7) Implementing and monitoring the effectiveness of individual rehabilitation plans for children (A/03.7) Carrying out preventive measures including sanitary education, among children and their parents (A/04.7) Organizing the activity of healthcare personnel and keeping medical records (A/05.7)	in conformity
Participating in work towards ad hoc theoretical and applied research in the area of healthcare concerning diagnosis, treatment, rehabilitation and prophylaxis	Examination of children to make a diagnosis (A/01.7) Administering treatment to children and monitoring its effectiveness and safety (A/02.7) Implementing and monitoring the effectiveness of individual rehabilitation plans for children (A/03.7) проведение профилактических Carrying out preventive measures including sanitary education, among children and their parents (A/04.7) Organizing the activity of healthcare personnel and keeping medical records (A/05.7)	in conformity

# 3. Graduates' competencies acquired as a result of studying under the higher education programme in Pediatrics for specialty 31.05.02 Pediatrics

The anticipated outcomes of completing the specialist EP (graduate's competencies model) are determined by the competencies acquired by the graduate, that is his/her ability to use knowledge, skills and personal qualities to achieve the objectives of his/her professional activity.

As a result of completing the specialist EP the graduate should have developed universal cultural, general professional and professional competencies.

A graduate should have developed the following universal cultural competencies (GC):

- abstract thinking, analysis, synthesis (GC-1);
- using the fundamentals of philosophical knowledge to develop one's own worldview

(GC-2);

- analyzing the main stages and regularities in the historical development of the society to form one's public stance (GC-3);
- ability to act in non-routine situations, being prepared to take social and ethical responsibility for the decisions taken (GC-4);
- proficiency in pursuing self-development, self-fulfilling, self-study, developing one's creative potential (GC-5);
- ability to use the means and methods of physical culture to ensure adequate social and professional activity (GC-6);
- ability to render first aid, to use means of protection in emergency situations (GC-7);
- proficiency in working in a team, have a tolerant attitude to social, ethnic, confessional and cultural difference (GC-8).

## A graduate should have developed the following **general professional competencies** (GPC):

- ability to handle the standard task of professional activities using information and bibliography resources, biomedical terminology, IT technology complying with the requirements of information security (GPC-1);
- ability to communicate in Russian and in foreign languages orally and in written form, to handle the tasks of professional activities (GPC-2);
- ability to employ the fundamentals of economic and legal expertise in professional activities (GPC-3);
- ability and proficiency in implementing the principles of deontological ethics in professional activities (GPC-4);
- ability and proficiency in analyzing the outcomes of one's actions to prevent professional errors (GPC-5);
- ability to keep medical records (GPC-6);
- ability to use basic notions and methods from physicochemical, mathematical and other natural sciences in handling professional tasks (GPC-7);
- ability to administer medications and other substances or their combinations in handling professional tasks (GPC-8);
- ability to assess morpho-functional, physiological and abnormal states of the human body in handling professional tasks (GPC-9);
- ability to organize provision of nursing care and primary premedical care for patients (GPC-10);
- ability to utilize medical articles envisaged in the procedures of health care (GPC-11).

# A graduate should have developed the following **professional competencies (PC):** *Medical activity:*

- ability and proficiency in implementing a complex of measures for promotion and

maintenance of children's health, developing a healthy lifestyle, preventing the occurrence and (or) spread of diseases, their early diagnosis, revealing the causes of and prerequisites for their emergence and development, aiming to eliminate the adverse effects of environmental factors on children's health (PC-1);

- ability and proficiency in carrying out preventive medical checkups, screening and follow-up monitoring of healthy children and those with chronic conditions (PC-2);
- ability and proficiency in implementing antiepidemic measures, to organize protection of populace in the foci of highly infectious diseases, upon aggravation of radiation situation, in case of natural disasters and other emergencies (PC-3);
- ability and proficiency in employing sociohygienic techniques of data collection and medical statistical analysis of information about children's health parameters (PC-4);
- ability to obtain and evaluate patients' presentations, history findings, examination findings, results of lab tests, instrumental studies and postmortem examinations for the purpose of identifying a condition or establishing the presence or absence of a disease (PC-5);
- ability to recognize the main pathological conditions, signs, syndromes, nosological entities and health-related issues in accordance with the 10th revision of the International Statistical Classification of Diseases and Related Health Problems (ICD) approved by the 43<sup>rd</sup> World Health Assembly (Geneva, 1989) (PC-6);
- ability to carry out temporary disability examination, to participate in medicosocial examination, to pronounce a person dead (PC-7);
- ability to decide upon an approach to managing patents with various nosological entities (PC-8);
- ability to manage and treat patients with various nosological entities in outpatient settings and in settings of a daycare facility (PC-9);
- ability to render primary premedical care to children upon a sudden onset of acute disease, conditions that are not life-threatening and do not require emergency care (PC-10);
- ability to take part in provision of emergency care to children with conditions requiring immediate medical attention (PC-11);
- ability to manage a physiological pregnancy and to deliver a pregnant woman (PC-12);
- ability to take part in provision of care in emergency situations, also taking part in medical evacuation (ΠΚ-13);
- ability to evaluate the necessity of administering natural therapeutic agents, pharmaceutical, nonmedicinal therapy and other methods to children in need of medical rehabilitation and health resort therapy (PC-14);
- ability to educate children and their parents (legal representatives) about basic hygienic health promoting procedures, the skills of self-checking basic physiological parameters that promote and maintain health and prevent diseases (PC-15);

 proficiency in educating people about elimination of risk factors and developing a healthy lifestyle (PC-16);

### organizational and managerial activities:

- ability to employ the main principles of organization and management in the area of health care, at healthcare institutions and their subdivisions (PC-17);
- ability to take part in assessment of the quality of healthcare provision to children using the main medical and statistical parameters (PC-18);
- ability to organize healthcare in an emergency, including medical evacuation (PC-19);

#### research:

- ability to analyze and publish medical information in accordance with the principles of evidence-based medicine (PC-20);
- ability to take part in research (PC-21);
- ability to take up in introducing new methods and techniques in the area of health care (PC-22).

## 4. Documents regulating the content and organization of training for the higher education programme in Pediatrics for specialty 31.05.02 Pediatrics

4.1. Annual academic schedule (<u>сайт ВолгГМУ, педиатрический факультет,</u> календарный учебный график, специальность 31.05.02 Педиатрия)

https://www.volgmed.ru/uploads/files/2019-10/119561-

kalendarnyj\_uchebnyj\_grafik\_po\_specialnosti\_31\_05\_02\_pediatriya.jpg

4.2. Curriculum (<u>сайт ВолгГМУ, педиатрический факультет, учебный план,</u> специальность 31.05.02 Педиатрия)

http://www.volgmed.ru/ru/files/list/11408/

4.3. Course syllabi (<u>сайт ВолгГМУ, педиатрический факультет, рабочие программы дисциплин реализуемых по специальности 31.05.02 Педиатрия</u>)

https://www.volgmed.ru/uploads/files/2019-6/114059-

annotacii\_k\_rabochim\_programmam\_disciplin\_v\_sostave\_opop\_vo\_po\_specialnosti\_31\_05\_0 2\_pediatriya.pdf

The framework of specialist HEP includes the compulsory (basic) part of curriculum and a part put together by the parties to educational relations (elective part).

Structure of specialist HEP		SFES HE, credit units	VolgSMU, credit
			units
Section 1	Courses (modules)	324-330	328
	Compulsory part	291-294	292
	Elective part	30-39	36
Section 2	Practical training including students' research	27-33	29
	Compulsory part	27-33	29
Section 3	State final examination	3	3
	Elective part	3	3

Credit value of specialist HEP	360	360

The specialist HEP comprises the following sections:

Section 1 Courses (modules) that include courses (modules) related to the basic (mandatory) part of the programme, and courses (modules) related to its variable part.

Section 2 On-the-job training including students' research which is fully incorporated into the compulsory part of the programme.

Section 3 State final examination, which is fully incorporated into the basic part and ends with awarding the pediatrician qualification.

The courses (modules) related to the compulsory part of the specialist HEP are mandatory for all students. The set of courses (modules) related to the basic part of the specialist HEP is determined by the VolgSMU independently in the scope envisaged by the SFES HE.

Courses (modules) in Philosophy, History, Foreign language, Health and Safety belong to the basic part of section 1 "Courses and modules" of the specialist EP.

Courses (modules) in Physical education and sports belong to the following sections of specialist EP:

- basic part of section 1 "Courses and modules" with credit value of 72 academic hours (2 CU) in the full-time mode of study;
- optional courses (modules) in the amount of 328 academic hours. These academic hours are mandatory and are not translated into credit units.

The variable part allows receiving more detailed, in-depth knowledge and skills determined in the content of compulsory (basic) courses; it enables the student to acquire profound knowledge and skills for their professional activity and for further education in the programmes of clinical residency and postgraduate course. The courses included into the elective part determine the profile of the specialist HEP.

Implementation of competency-based approach implies a wide use of active and interactive forms of study (computer simulation, business simulation game, roleplaying, case study, t-groups) in combination with self-study for the purpose of forming and developing professional skills in the students. The share of interactive classes in the total training time is 10% of all in-class activities. Lectures account for not more than 30% of in-class work. In mastering all the courses of the present HEP students' self-study takes up not less than one third of the total time allotted for the course.

The specialist EP contains elective courses and optional courses, which allows each student to put together a individual training plan through a procedure of compiling an individual training plan at the beginning of each semester. Elective courses (modules) constitute 33.5% of the variable art of section 1 "Courses and modules". The set of courses within the variable part is determined by the VolgSMU independently. Students point out courses of their choice listed in the variable art of the specialist HEP after which these courses become mandatory for these students.

The framework of the curriculum permits a systemic approach to graduates' training. One can note a clear-cut agreement between the content of courses and their logical sequence. A distinctive feature of the curriculum is that the priority of clinical courses is retained while basic humanitarian and biomedical courses are taught at a rather high level. The list and content of courses within the regional component were devised to meet the internal needs of the region.

Students enrolled in the academic year 2013-2014 and those enrolled in 2014-2015 and later are trained in their specialty with redistribution of academic hours between courses "Theoretical pediatrics, endocrinology" and "Physical education and sports".

4.4. Programmes of practical and on-the-job training <u>(сайт ВолгГМУ, педиатрический факультет, рабочие программы дисциплин реализуемых поспециальности</u> 31.05.02 Педиатрия)

### https://www.volgmed.ru/ru/files/list/11934/?dept=9&rdir=264

### 4.5. Face-to-face learning.

Face-to-face learning is determined by the Regulation on face-to-face learning approved by the VolgSMU Academic Board on April 10, 2014 and is defined as students' work in interaction with the teacher.

Face-to-face learning includes lectures, seminars, working on term paper, group counseling, individual work with the teacher, state final examinations.

Face-to-face learning is indicated in the curriculum and in course (module) syllabi for specialty 31.05.02 Pediatrics.

## 5. Actual resource revision for the higher education programme in Pediatrics for specialty 31.05.02 Pediatrics

### **5.1. Staffing**

Implementation of the specialist HEP is provided by academic and teaching staff with an undergraduate degree corresponding to the course they teach, who regularly perform research and (or) scientific and methodical work.

The share of full-time academic and teaching staff rounded to the number of positions is not less than 50% of the total amount of teaching staff engaged in training.

The share of academic and teaching staff with education corresponding to the course they teach, rounded to the number of positions, is not less than 70% of the total number of academic and teaching staff implementing the specialist programme.

The share of academic and teaching staff with a research degree and (or) academic status, rounded to the number of positions, is not less than 65% of the total number of academic and teaching staff implementing the specialist programme.

The share of staff among heads and personnel of organizations whose activity is related to the future professional activity of students (with work experience in this area not less than three years), rounded to the number of positions, is not less than 10% of the total number of academic and teaching staff implementing the specialist programme.

### 5.2. Training, information and methodological support

The specialist EP is supplied with teaching and methodological support and materials for all courses including practical training. These components of syllabi for all courses and on-the-job training are posted at the University's educational portal.

Over the entire period of study each student is provided with individual unlimited access to electronic libraries, educational portal of the university, updated professional databases and online directories (their composition is set by course syllabi and is subject to annual update) available to registered students of specialty 31.05.02 Pediatrics from any point that has access to the Internet.

The educational portal of the University provides the following:

- 1. access to curricula, syllabi of courses and on-the-job training and other teaching and methodological aids: <a href="https://www.volgmed.ru/ru/depts/list/32/">https://lib.volgmed.ru/ru/depts/list/32/</a>, <a href="https://lib.volgmed.ru/index.php?id=389">https://lib.volgmed.ru/index.php?id=389</a>, <a href="https://lib.volgmed.ru/index.php?id=406">https://lib.volgmed.ru/index.php?id=406</a>, and on the Internet page of each department;
- 2. access to electronic teaching resources and professional databases indicated and regularly updated in the syllabi of courses and on-the-job training [http://lib.volgmed.ru/index.php?id=12];

3. tracking students' progress over time, the results of course exams and the outcomes of studying under the higher education programme

[https://iskra.volgmed.ru/av/index.php?client\_id=medunclient\_&response\_type=code&state=fdk df889gfd89789743ui];

- 4. all classes, procedures of student performance assessment if their implementation implies online learning;
- 5. compiling a student's cumulative record that contains saved papers, reviews and assessments of these papers by teaching and academic staff

[https://iskra.volgmed.ru/av/index.php?client\_id=medunclient\_&response\_type=code&state=fdk df889gfd89789743ui];

6. interaction between students and teaching and academic staff

[https://iskra.volgmed.ru/av/index.php?client\_id=medunclient\_&response\_type=code&state=fdk df889gfd89789743ui];

All the buildings and hostels, some departments are provided with wireless Internet access. The University owns a licensed software package; its content is specified in course and on-the-job training programmes and is subject to annual update. The University's electronic libraries and electronic educational portal can provide concurrent access to not less than 25% of students under the specialist HEP.

The University has regional and national periodicals. The list od periodicals is reviewed every year; it is shown on the university website <a href="http://www.volgmed.ru">http://www.volgmed.ru</a>.

#### **5.3.** Material and technical resources

The University has material and technical resources that support all types of laboratory work, course and interdisciplinary work, practical classes and research; it complies with all current sanitary and fire-hazard regulations. The list of material and technical resources for the specialist EP is incorporated in course syllabi, on-the-job training programmes and is posted on the University website [https://www.volgmed.ru/uploads/files/2018-4/84001-materialno-tehnicheskoe obespechenie specialnosti 31 05 02 pediatriya.pdf.].

To provide training the University has a sufficient quantity of facilities: lecture halls, classrooms for practical classes, individual and group consultations, ongoing assessment of student performance and formative assessment, as well as facilities for students' self-study and for storage and maintenance of teaching equipment.

All facilities are equipped with specialized furniture and teaching aids that serve to present information to a large audience. For lectures there are sets of demonstration equipment and aids that provide thematic illustrative material in accordance with the content of course syllabi. All departments are equipped with necessary facilities like multimedia projector, overhead projector, charts, slide projectors, educational films, as well as accessory teaching aids like phantoms, museum exhibits, micro and macro preparations, lab equipment, instruments, etc. which enables implementing new teaching methods. The list of supplies for teaching courses of the specialist HEP includes laboratories complete with lab equipment with varying degree of complexity.

Facilities for student self-study are provided with computers with Internet access and access to the University's educational portal.

The main teaching hospitals where future pediatricians are trained are leading healthcare institutions for adults and children and large multi-profile clinics.

The total capacity of pediatric teaching hospitals is about 1800 beds. All teaching hospitals have modern therapeutic and diagnostic equipment which permits using current technologies in the diagnosis and treatment of children and teenagers and for teaching purposes

and meets the requirements for teaching hospitals. The facilities at teaching hospitals allow holding high-quality training sessions.

## 6. Regulatory and methodological guidelines for performance assessment of students of the higher education programme in Pediatrics for specialty 31.05.02 Pediatrics

In accordance with the federal law "On education in the Russian Federation" of December 29, 2012 No 273-FZ and the Order of the Ministry of Education of the Russian Federation of April 5, 2017 No 301 "On establishing the procedure for organization and implementation of training and education in educational programmes of higher education: Bachelor, Specialist and Master programmes", student performance assessment consists in ongoing assessment, formative assessment and state final examinations. At the VolgSMU the quality assurance stems from implementation of the following:

- all-university system of quality management;
- development of unified requirements for graduate quality assurance with employer involvement;
- monitoring of course syllabi review and update;
- development and improvement of technology for student performance assessment, for monitoring the level of competency acquisition;
- ensuring professionalism and expertise of the academic and teaching staff;
- regular internal audit with unified criteria to assess the activities and to compare the indices
  of training quality with other medical universities (with involvement of employer
  representatives);
- informing the general public through the media and electronic resources of the VolgSMU about its plans, innovations and activity outcomes.

### 6.1. Ongoing and formative assessment of student performance

The criteria and methods of ongoing and formative assessment of student performance are based on the Regulation on ongoing and formative assessment of student performance is approved by the University's Academic Board according to the procedure envisaged by the VolgSMU Charter.

In accordance with the requirements of the SFES HE the University has developed and approved Funds of assessment tools for ongoing and formative assessment. The database includes questions and sample tasks for practical classes, lab works, end-of-term tests and exams, case studies, lists of practical skills with criteria of their assessment, sample themes for reports, tests and other means of student assessment which permit evaluating how well the students mastered their competencies. A package of assessment materials is developed by the department which teaches the course or on-the-job training; if the course is from the section of professional courses, the development of assessment materials is done with involvement employer representatives. A package of assessment materials is a part of the course or on-the-job training programme; it has to be reviewed and discussed by the academic and methodological committee of the Pediatrics department, approved by the Central methodological council of the VolgSMU and located on the University's educational portal.

Hospital-based departments of the VolgSMU offer all prerequisites to bring the ongoing assessment of student performance to the conditions of their future professional work.

## 6.2. State final examinations of graduates of the higher education programme in Pediatrics for specialty 31.05.02 Pediatrics

The goal of State final examinations of graduates of specialty 31.05.02 Pediatrics is to establish whether the level of graduates' training meets the criteria of the Federal State Higher Educational Standard in specialty 31.05.02 Pediatrics approved by the order of the Ministry of Education and Science of the Russian Federation of August 17, 2015 No 853 (September 15, 2015, registration No 38880) and Occupational standard "District pediatrician" approved by order of Ministry of Labor and Social Protection of the Russian Federation of March 27, 2017 No 306n (of April 17, 2017 registration No 46397). The objective of state final examinations is to assess the graduates' knowledge and skills, the level of mastering general cultural, general professional and professional competencies which determines the graduates' preparedness for addressing the tasks of their professional activity stated by the SFES HE and promotes graduates' position on the labour market and their ability to enter postgraduate programmes and clinical residency. The stages of state final examinations are in full accordance with the content of the specialist programmer hat the student encountered during training.

On the basis of regulatory requirements of the occupational standard and SFES HE the University annually develops and approves the prerequisites for the content, amount and framework of the state final examinations, as well as prerequisites for the procedure of final exams. These documents are kept at the dean's office, at the department at which final exams are held, and are located on the university's educational portal.

The procedure, programme and structure of state final examinations as well as all support materials are brought to the notice of graduates not later than six months prior to the start of final exams.

Only students who completed all courses of the specialty HEP are allowed to sit for final exams. Upon passing all the stages of final exams the graduate is awarded a professional qualification and receives a diploma of higher education, a document of standardized format.

The marks received in state final examinations cannot be replaced with marks based on ongoing and formative assessment of student performance.

The programme of state final examinations developed on the basis of SFES HE in the Pediatrics specialty and the Occupational standard "District pediatrician" meets all the types and tasks of future professional activities.

A final interdisciplinary exam in specialty 31.05.02 Pediatrics is held after completing the twelfth semester; it is held in stages and includes the following mandatory stages:

- assessment of theoretical knowledge through writing tests on paper;
- assessment of practical skills (oral and written);
- assessment of the ability to handle specific professional tasks through offering clinical case problems and discussing questions following the case problem.

The sequence of state final examination stages, the terms and duration are established by the University Academic Board.

The stages of the final interdisciplinary exam include assessment of graduates' theoretical knowledge, bedside assessment of their practical skills using simulators, phantoms, mock-ups, instruments, devices, reading the findings of ECG, X-ray, lab tests, slides, prescriptions, demonstrating one or several practical skills, and assessment of how well the graduate has mastered professional competencies.

The results of all stages of final exams are translated into points out of a hundred-point scale adopted at the Volgograd State Medical University.

- 1. Stage one is multidisciplinary testing in the form of computer tests. The graduates are given points out of five and one hundred point scale and are entered into the protocol signed by the chairman. The tests consists of 100 questions.
- **2. Stage two** is assessment of practical skills. It is conducted in clinics at patient bedside. The examination includes a physical exam of a patient with compiling a case history, reading the findings of lab tests, prescribing medications, handling issues of breastfeeding, emergency care, therapeutic procedures.

For assessment of physician's skills each examinee is given a card with 5 tasks covering practical skills in the following areas:

- Communicating with patients and relatives,
- Taking patent's case history,
- Patient examination,
- Interpreting the findings of lab tests, administering pathogenetic and symptomatic therapy,
- Administering rehabilitation and prevention measures for the patient,
- Organizing surveillance of patients and healthy individuals,
- Therapeutic procedures (filling in medical files, external obstetric exam, maneuvers in cephalic presentation) etc.

The results of the second stage of final examinations are evaluated collectively by the examining committee; examinees are given point out of five and one hundred; the marks are entered in the protocol and signed by the chairman.

Students who fail the first or second stage are not allowed to sit for the final interview.

**3. Stage three** is interdisciplinary interview on theoretical issues using case problems. The case problems include the content of major courses and allied disciplines. The examiners assess the graduate's ability to handle case problems on the basis of integrating knowledge from courses included in the final examination.

Each examinee is offered five case problems of a general nature and questions. The questions asked are about the origin and pathogenesis of a certain disease, arising abnormalities in organs, organization of treatment and rehabilitation of children, organization of prevention of the disease under discussion at healthcare institutions, specific effects of medicines, features of care for children with this disease, ability to handle various ethical and deontological issues associated with this disease etc., which allows eliciting and assessing the knowledge and skills stated by SFES HE.

The mark is awarded collectively out of five and one hundred points. The results of the third stage of final exam are entered into the protocol and signed by the chairman of the state examination commission.

The results of all three stages of final examinations are entered into the protocol and signed by the chairman of the state examination commission. The final mark is formulated by the examiners collectively as a mean value of marks awarded at all three stages of the examination.

All stages of the final interdisciplinary exam are held at open sessions of the state examination commission attended by not less than two-thirds of the commission members. Marks awarded at each stage of examinations are approved by the commission chairman. The results of exam are announced on the day the protocol of the session of state examination commission was drawn and signed in the appropriate manner.

Persons who failed to appear before the state examination commission for valid reasons (due to health issues or other extraordinary situations, all well-documented) are given an

opportunity to sit for final examinations without expulsion from the University over a period of six months from the date stated in the document submitted by the student.

Students who failed appear before the state examination commission or who were given unsatisfactory marks as well as disabled students who failed to appear for the exam or received unsatisfactory marks are expelled from FSBEI of HE VolgSMU of the Ministry of Health of the Russian Federation and are given a certificate of completed courses but failed final examinations.

A person who failed the state final examinations can resit the exams not earlier than in ten months and not later than five years after the date of the failed state final examinations. Such a person can resit the exams not more than two times.

## 7. Review of the University medium providing for development of general cultural, social and personal competencies of graduates

Formation of the sociocultural medium and educational activities at the VolgSMU is provided by the theoretical and professional departments, the university museum, general circulation newspaper "Za Meditsinskie Kadry", the library, dean's offices, student associations (Student Council, Student Research Society, sports clubs), the system of class and year leaders at the Pediatrics faculty. They jointly provide for formation of general cultural and sociopersonal competencies.

The student Council of the VolgSMU is the main agency of student self-government at the university. Apart from 12 various clubs, it includes Faculty Councils and Student Councils of Hostels which organize the out-of-class work at University hostels.

The civic, patriotic and ethical education is achieved by participating in social work with war veterans, conferences and events on the Great Patriotic War. Students also engage in social work with orphanage children.

The university library holds regular meetings on war heroes, Nobel prize laureates as well as thematic exhibitions like "Take pride in you profession", "On medical ethics". University students meet with war veterans who were medical professionals, with honoured citizens, poets and musicians.

Students organize photo exhibitions, publish poetry devoted to important anniversaries, hold poetry events.

In the framework of Culture programme implemented by departments of History and Russian we organize student research conferences devoted to Russian history, Russian state symbols, and the Great Patriotic War.

University students have access to over 30 sports clubs; various sports and athletic contests are held annually with participation of over 1000 students. A club on healthy lifestyle at the Student Council delivers lectures at hostels and holds discussions with involvement of specialists. The university has a summer recreation camp that can host 500 students.

Education through profession is the province of departments teaching medicine. Students of the final year take part in night shifts, clinical conferences, ward rounds, case studies under the guidance of clinical residents, department heads, assistant professors and heads of hospital departments.

Healthcare professionals also take part in student education. At the Pediatric faculty outstanding students can have mentors: leading physicians of healthcare institutions. Such a system permits professional fulfilment of students due to greater opportunities for out-of-class on-the-job training at teaching hospitals under the guidance of experienced physicians. This system is part of career guidance and graduate employment.

To encourage outstanding academic achievement, active participation in social life, research and sports students often become recipients of monetary awards, grants and scholarships provided by the University.

Student participation in social life, research and sports is also encouraged by giving them bonus points to their rating score.

Underprivileged students and student families can enjoy sociopedagogical assistance, psychological counseling. Students who fill state-funded places receive allowances and other forms of social assistance according to the procedure set by legislation of the Russian Federation.

All underprivileged students are provided with a place at the hostel; they are entitled to occasional monetary assistance.

# 8. Features of training in higher education programme in pediatrics for specialty 31.05.02 Pediatrics for persons with disabilities

- 8.1. The measures for creation of inclusive learning and special conditions for disabled students at the FSBEI of HE VolgSMU of the Ministry of Health are based on the "Perspective plan for creating an inclusive learning environment for handicapped and disabled students at the FSBEI of HE VolgSMU of the Ministry of Health of the Russian Federation for the period of 2014-2017", approved by a decision of the Academic Board of the University (protocol No 06 of February 12, 2014).
- 8.2. Training of disabled students proceeds according to an individualized learning programme adapted for the student's specific health condition, if necessary or in accordance with the individual programme of disabled person's rehabilitation/abilitation.
- 8.3. The credit value of specialist programme 31.05.02 Pediatrics under an individualized programme for disabled students should not exceed 75 CU for one academic year.
- 8.4. Training of disabled students can be organized both together with other students and in specially organized groups.
- 8.5. Disabled students receiving a higher professional education are entitled to special edition textbooks and handbooks as well as other courseware free of charge.
  - 8.6. Specifics features of final examinations for disabled students:
- disabled students should submit a written application that they need specialized conditions to sit for final examinations not later than 3 months prior to the beginning of the state final examinations:
- disabled students can sit for their final examinations in the same classroom with students without health limitations of this does not does not cause difficulties for disabled students;
- upon receipt of an application from a disabled student the FSBEI of HE VolgSMU of the Ministry of Health ensures that a University staff member or an invited person attends the disabled student and provides the necessary technical aid in accordance with the special needs (reaching the workplace, moving about, communicating with members of the state examination commission);
- disabled students are provided with instructions about the procedure of final examinations in a readily understandable format;
  - in accordance with their special needs disabled students can use necessary appliances.