MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION

Federal State Educational Institution of Higher Education «Perm State University»

Approved by the Academic Council of PSU «30» Juny 2021 Protocol No. 10

PROGRAM OF STATE FINAL CERTIFICATION OF GRADUATES BY SPECIALTY 33.05.01 PHARMACY

PERM 2021

This program defines the procedure for organizing and conducting the state final certification in the specialty 33.05.01 Pharmacy at the Federal State Educational Institution of Higher Education «Perm State University» (PSU).

In accordance with the Law of the Russian Federation of December 29, 2012, No. 273-FL "On Education in the Russian Federation", the development of educational programs of higher education is completed by the state final certification (SFC) of graduates. State final certification of a graduate is mandatory and is carried out after mastering the educational program in full, taking into account the entire set of acquired competencies.

The documents on the basis of which the SFC Program was developed are:

- Federal Law of December 29, 2012, No. 273-FL "On Education in the Russian Federation" (with amendments and additions);

- SEES in the specialty 33.05.01 Pharmacy, approved by the Academic Council of Perm State University of June 26, 2019 No. 10 (with amendments and additions);

- The procedure for organizing and carrying out educational activities for educational programs of higher education - bachelor's programs, specialty programs, master's programs, approved by order of the Ministry of Education and Science of the Russian Federation of April 05, 2017 No. 301;

- The procedure for conducting state final certification for educational programs of higher education - bachelor's programs, specialist programs and master's programs, approved by order of the Ministry of Education and Science of the Russian Federation of June 29, 2015, No. 636;

- Regulations on the procedure for conducting state final attestation for educational programs of higher education - bachelor's programs, specialist programs and master's programs at PSU (hereinafter, the Regulation on the procedure for SFC PSU);

- Educational program of higher education in the specialty 33.05.01 Pharmacy, approved at a meeting of the Academic Council of PSU on 30.06.2021, protocol No. 10;

- Curriculum for the specialty 33.05.01 Pharmacy.

The total labor intensity of the state final certification of a specialist is 9 credit units or 6 weeks, including: preparation and defense of the final qualifying work - 4 weeks and preparation and passing of the state exam - 2 weeks.

Goals and objectives of the state final certification

In accordance with the Federal Law of the Russian Federation No. 273-FL of December 29, 2012 "On Education in the Russian Federation" (Part 5, Article 59), the final certification of graduates completing their studies in higher professional education programs is mandatory.

The purpose of the final certification is to determine the compliance of the level of professional training of the graduate to perform professional tasks and the compliance of his training with the requirements of the self-established educational standard (SEES) of PSU.

State final certification in the specialty 33.05.01 Pharmacy at PSU consists of passing the state exam and defending the final qualifying work. The procedure for conducting state attestation tests is developed by the higher educational institution and communicated to students of all forms of education no later than six months before the start of the state final attestation. Students who have successfully completed the full development of the educational program in the specialty 33.05.01 Pharmacy, developed by a higher educational institution in accordance with the requirements of the PSU SEES, and have passed all the exams and tests established by the curriculum, are admitted to the state final certification.

The area of professional activity and areas of professional activity in which graduates who have mastered the specialty program in specialty 33.05.01 Pharmacy (hereinafter - graduates) can carry out professional activities is:

02 Healthcare (in the field of circulation of medicines and other goods of the pharmacy range).

Graduates can carry out professional activities in other areas of professional activity and (or) areas of professional activity, provided that their level of education and acquired competencies correspond to the requirements for employee qualifications.

Types of professional activity for which graduates are prepared: Pharmaceutical activity

- manufacturing of medicines in the conditions of pharmacy organizations;

- sale of medicines; dispensing of drugs to privileged strata of the population, dispensing of drugs of strict accounting;

- provision of conditions for storage and transportation of medicines;

- informing the population about medicines and other goods of the pharmacy range.

Research activities

- participation in the solution of individual research and scientific-applied problems in the field of drug production and manufacture.

Expert and analytical

- quality control and pharmaceutical analysis of all types of medicinal products, including medicinal plant materials and excipients, in accordance with state quality standards.

Organizational and managerial activities

- management of the activities of an organization engaged in the circulation of medicines;

- carrying out measures for the storage, as well as the seizure and destruction of medicinal products that have become unusable;

- maintaining accounting and reporting documentation in a pharmaceutical organization.

The list of universal, general professional and professional competencies that a student must master as a result of mastering the educational program and tested at the SFC.

In accordance with the SEES of PSU and EP, as a result of the successful completion of the SFC, the graduate should have the following universal, general professional and professional competencies:

UC-1 Able to analyze problem situations and develop a solution based on a systematic approach;

UC-2 Able to manage a project, organize and manage the work of a team;

UC-3 Able to carry out communications within the framework of academic and professional interaction in Russian and foreign languages;

UC-4 Able to analyze and take into account the diversity of cultures in their sociohistorical and philosophical aspects in the process of social interaction;

UC-5 Able to manage their resources, determine the priorities of their own activities, build and implement a trajectory of self-development;

UC-6 Able to maintain the proper level of physical fitness to ensure full-fledged social and professional activity;

UC-7 Able to create and maintain safe living conditions in everyday life and in professional activity to preserve the natural environment, ensure sustainable development of society, including in the event of the threat and occurrence of emergencies and military conflicts;

UC-8 Knows legal and ethical norms, is able to assess the consequences of violation of these norms;

UK-9 Able to use basic defectological knowledge in social and professional spheres;

UK-10 Able to make informed economic decisions in various areas of life;

UK-11 Able to form an intolerant attitude towards corrupt behavior;

GPC-1 Possesses basic knowledge of the modern scientific picture of the world based on the provisions, laws and methods of mathematical and natural sciences;

GPC-2 Able to understand the principles of operation of modern information and communication technologies and use them to solve professional problems, taking into account the requirements of information security;

GPC-3 Able to apply knowledge about morphological and functional characteristics, physiological conditions and pathological processes in the human body to solve professional problems;

GPC-4 Able to carry out professional activities, taking into account specific economic, environmental, social factors within the framework of the system of legal regulation of the sphere of circulation of medicines;

GPC-5 Able to carry out professional activities in accordance with ethical standards and moral principles of pharmaceutical ethics and deontology;

GPC-6 Able to provide first aid on the territory of a pharmaceutical organization in case of emergencies among visitors before the arrival of an ambulance team;

GPC-7 Able to present the results of his work orally and in writing in accordance with the norms and rules adopted in the professional community;

PC-1 Able to present the results of his work orally and in writing in accordance with the norms and rules adopted in the professional community;

PC-2 Able to carry out technological processes in the manufacture of medicines in the conditions of pharmacy organizations;

PC-3 Ready to sell medicines in accordance with the rules of wholesale trade, the procedure for retail sale and the procedure for the transfer of medicines established by law;

PC-4 Ready to provide storage of medicines and other goods of the pharmacy range;

PC-5 Able to inform and advise the population and medical workers about medicines and other goods of the pharmacy range;

PC-6 Ready to conduct and manage research work in the field of pharmacy, participate in the implementation of new techniques in the development and production of medicines;

PC-7 Able to participate in the organization, maintenance and application of basic management principles in pharmaceutical organizations;

PC-8 Capable of carrying out technological processes in the industrial production and manufacture of medicines.

Funds of evaluation means of final certification

Appraisal Funds (hereinafter - AF) for final certification are presented in a separate document "Assessment funds funds for state final certification", approved at a meeting of the Academic Council of the Faculty of Chemistry.

The purpose of creating the AF for the state final certification of graduates is a complete assessment of the practical and theoretical preparedness of the graduate to perform the professional tasks established by the SEES.

The tasks of the AF:

- control and management of the process of acquiring the necessary knowledge, abilities, skills and the level of formation of competencies defined in the SEES;

- control and management of the achievement of the goals of the implementation of the educational program;

- ensuring the correspondence of the learning outcomes to the tasks of future professional activity through the improvement of traditional and the introduction of innovative teaching methods in the educational process of the university.

Assessment funds for the state final certification include: a list of situational tasks necessary to assess the results of mastering the educational program in the form of examination tickets.

The program of the state final attestation, including the state exam program, containing a list of questions to be submitted for the state exam, and recommendations for students on preparing for the state exam, including a list of recommended literature for preparing for the state exam, and requirements for final qualifying works and the procedure for their implementation, the criteria for assessing the results of passing state exams and defending final qualifying works are part of the educational program in the specialty and are approved by the Academic Council of the University.

State Examination Commission

The state examination is taken by the State Examination Commission (SEC) in the specialty. The Chairman of the State Electoral Commission is approved from among persons who do not work at PSU, who have a doctorate degree and (or) the academic title of professor, or who are leading specialists - representatives of employers or their associations in the relevant field of professional activity, no later than December 1, preceding the year of the state final certification.

The state examination commission includes the chairman of the said commission and at least 4 members of the said commission. Members of the state examination commission are leading specialists - representatives of employers or their associations in the relevant field of professional activity and (or) persons who belong to the teaching staff of PSU (other organizations) and (or) to researchers of PSU (other organizations) and have academic title and (or) academic degree. The share of persons who are leading specialists - representatives of employers or their associations in the relevant field of professional activity (including the chairman of the state examination commission), in the total number of persons who are members of the state examination commission, must be at least 50 percent.

The work of the SEC is directed by the chairman of the SEC or his deputy (in the absence of the chairman). For the period of the state final certification to ensure the work of the SEC, a secretary of the said commission is appointed from among the persons belonging to the teaching staff, scientific workers or administrative workers of Perm State University. The secretary of the SEC is not part of it. The secretary of the SEC keeps minutes of its meetings, submits the necessary materials to the appeal commission.

The composition of the commission and the secretary of the SEC are approved by the order of the rector no later than December 31 of the previous year of the state final certification, but no later than 1 month before the start date of the state final certification.

The schedule of the commission's work, agreed with the chairman of the SEC, is approved by the rector no later than 30 calendar days before the day of the first state certification test. The schedule indicates the dates, time and place of state certification tests and pre-examination consultations. The approved schedule is communicated to the students, the chairman and members of state examination commissions and appeal commissions, secretaries of state examination commissions, managers and consultants of final qualifying works.

The procedure for organizing and conducting the state exam

The state exam is the most important type of state final certification of a specialist and is designed to provide an opportunity to establish the level of education, the completeness of knowledge and skills acquired by a graduate in the framework of mastering an educational program; the level of intellectual abilities of a specialist, his creative potential.

According to the State Environmental Management System of PSU, the state final certification in the specialty 33.05.01 "Pharmacy" (in addition to the defense of the final qualification work) is carried out in the form of a state examination, which reveals the theoretical and practical preparation of the graduate to solve professional problems based on the requirements of the SEES.

The state exam precedes the defense of the graduate qualification work of a specialist and is conducted in several disciplines of the educational program, the results of mastering which are of decisive importance for the professional activities of graduates.

The purpose of the state exam is to test the knowledge, abilities, skills and personal competencies acquired by the graduate in the study of academic disciplines of the educational program, in accordance with the requirements of the PSU SEES and indicating the readiness (ability) of students to independently solve the problems of professional activity in standard situations.

The scope of the requirements for the mandatory minimum content and the level of training of a graduate is determined by this program of state final certification in the specialty "Pharmacy", developed on the basis of the current state educational standard of higher professional education, the qualification characteristics of a graduate pharmacist and the PSU SEES.

The program of the state exam in the specialty "Pharmacy" includes a list of questions, on the basis of which certification test tasks, situational educational tasks and a list of practical skills are formed. A graduate must show his ability and skill, relying on the acquired knowledge, skills and formed general cultural, general professional and professional competencies, independently solve the problems of his professional activity at the modern level, professionally present special information, scientifically argue and defend his point of view.

The procedure for conducting the state exam is developed by the teachers of the graduating department and approved by the Academic Council of the faculty. The approval of variants of situational tasks with response standards is carried out at a meeting of the Academic Council of the faculty. Students should be able to familiarize themselves with the structure and typical samples of situational tasks. The program, form and conditions of the SEC are brought to the attention of students no later than 6 months before its start.

Checking the level of mastering knowledge, abilities and skills in solving specific professional problems is carried out during the interview simultaneously in five major disciplines: 1) pharmacology; 2) pharmacognosy; 3) pharmaceutical technology; 4) pharmaceutical chemistry; 5) management and economics of pharmacy.

The date for passing the state exam is set no later than 30 calendar days before the first state certification test. Variants of exam tickets are kept sealed and issued to students directly on the exam.

Not later than 2 days before the state exam, a consultation is held on the issues included in the state exam program. The schedule of consultations is approved by the rector of the university.

The sequence of passing the state exam by students is determined by the chairman of the SEC. Students with disabilities (who have disabilities in physical and (or) mental development: hearing impaired, visually impaired, speech impairment, musculoskeletal system and others, including disabled children, people with disabilities), pregnant women should be given the opportunity to pass the state exam as a matter of priority at the request of such a graduate. The presence of unauthorized persons at state exams is allowed only with the permission of the dean of the faculty or the chairman of the state examination committee.

The state exam takes place in the form of a final interview on complex interdisciplinary situational tasks. It checks the professional training of the graduate, i.e. the level of his competence for solving professional situations. The interview is carried out on the basis of solving generalized situational problems - clinical, pharmaceutical, ethical-deontological, analysis of recipes, etc. The assessment in this case is the degree of the graduate's ability to develop and implement optimal solutions to professional problems based on the integration of the content of the disciplines included in the certification test. The number of situational tasks must be at least the number of students taking tests in one examination stream. When preparing for the exam, the student takes notes on the oral answer sheet. At the end of the answer, the oral answer sheet, signed by the student, is handed over to the members of the SEC. No more than one hour is given to prepare to answer the questions of the examination card. During the preparation of graduates for the answer, at least one member of the SEC should be in the audience.

The Commission must ensure a business and calm atmosphere in the classroom during preparation for the answer and hearing the answers of the alumni, and must also ensure the uniformity of the requirements for the students.

In the event that a graduate, after receiving an examination card, has textbooks, methodological materials, educational and other literature (except for those allowed for use in

the state exam), abstracts, cheat sheets, regardless of the type of information carrier, as well as any technical means and means of transmitting information, or using a hint, regardless of whether the specified materials and (or) funds were used in preparation for the answer to the state exam, the commission withdraws the specified materials and (or) funds before the end of the state exam, indicating the relevant information in the minutes of the SEC meeting and makes a decision on the assessment of the knowledge of such a graduate "unsatisfactory" or on the continuation of the state exam (hearing the answer to the exam ticket).

The duration of a student's questioning on the state exam should not exceed 30 minutes. During the examination, examiners are given the right to ask the examinees additional questions in accordance with the approved program. When assessing knowledge at the state exam, it is taken into account: the correctness of the answer to the questions, the completeness of the disclosure of the question, the accuracy of the use and interpretation of terms; the formation of the intellectual and scientific abilities of the examinee; independence of the answer; speech literacy and logical sequence of the answer.

The exam results are assessed on a 4-point system: "excellent", "good", "satisfactory", "unsatisfactory".

DESCRIPTION OF INDICATORS AND CRITERIA FOR EVALUATION OF COMPETENCIES, SCALES OF EVALUATION

State exam

Competencies	Competency name	Expected results	(Criteria for assessing the resu	lts of passing the state exam	
			Unsatisfactory	Satisfactory	Good	Excellent
	·	·		LEVELS OF FORMATIO	N OF COMPETENCIES	
			COMPETENCE IS NOT	THRESHOLD	THRESHOLD	ADVANCED
			FORMED	Competence is formed at	Competence is formed at	Competence is formed
			The level of formation is	a basic level that allows	a level that allows to	at a high level,
			below the threshold	to apply knowledge,	apply knowledge, skills	allowing to apply
				skills and abilities in the	and abilities in the	knowledge, skills and
				professional field	professional field	abilities in the
				_	_	professional field
UC-3	Able to carry out	Knows the vocabulary, phonetics	The student shows an	The student shows a low	The student demonstrates	The student is fluent in
	communications	and grammar rules of Russian and	extremely low level of	level of proficiency in	a sufficient level of pro-	the vocabulary, phonet-
	within the	foreign languages, necessary for	proficiency in vocabu-	the vocabulary, phonetics	ficiency in the vocabu-	ics and grammar rules
	framework of	the formation of communicative	lary, phonetics and	and grammar rules of	lary, phonetics and	of Russian and foreign
	academic and	competence. Is able to apply lexi-	grammar rules of Rus-	Russian and foreign lan-	grammar rules of Rus-	languages, freely ap-
	professional	cal, phonetic and grammatical	sian and foreign lan-	guages, makes gross mis-	sian and foreign lan-	plies the lexical, pho-
	interaction in	language skills in everyday and	guages, gross errors in	takes in the application	guages, sometimes	netic and grammatical
	Russian and foreign	professional communication in	the use of lexical, pho-	of the lexical, phonetic	makes minor mistakes in	skills of Russian and
	languages	Russian and foreign languages.	netic and grammatical	and grammatical skills of	the application of the	foreign languages in
		He is fluent in reading, speaking,	skills of Russian and	Russian and foreign lan-	lexical, phonetic and	everyday and profes-
		listening and writing in Russian	foreign languages in eve-	guages in everyday and	grammatical skills of	sional communication,
		and a foreign language in every-	ryday and professional	professional communica-	Russian and foreign lan-	competently, accurately
		day communication, composing	communication, lack of	tion, has little command	guages in everyday and	composes texts on pro-
		professional texts.	skills in writing texts on	of the skills of writing	professional communica-	fessional topics
			professional topics	texts on professional	tion, experiences minor	
				topics	difficulties in composing	
					texts on professional	
					topics	
UC-4	Able to analyze and		The student is not aware	The student is partially	The student is sufficient-	The student is well
	take into account	cultural traditions of the modern	of the historical heritage	aware of the historical	ly knowledgeable about	aware of the historical
	the diversity of	world, the main stages of its his-	and cultural traditions of	heritage and cultural tra-	the historical heritage	heritage and cultural
	cultures in their	torical development, main dates	the modern world, the	ditions of the modern	and cultural traditions of	traditions of the mod-
	socio-historical and	of world history; knows how to	main stages of its histor-	world, the main stages of	the modern world, the	ern world, the main
	philosophical	determine the driving forces of	ical development, the	its historical develop-	main stages of its histori-	stages of its historical
	aspects in the		main dates of world his-	ment, the main dates of	cal development, the	development, the main
	process of social	vels; possesses the skills of com-	tory; cannot determine	world history; has signif-	main dates of world his-	dates of world history;
	interaction	parative analysis of historical	the driving forces of his-	icant difficulties in de-	tory; has minor difficul-	does not experience
		processes and cultural events in	torical events of different	termining the driving	ties in identifying the	difficulties in determin-
		the context of general history;	levels; skills of compara-	forces of historical	driving forces of histori-	ing the driving forces
		Know the main stages of the his-	tive analysis of historical	events at different levels;	cal events at different	of historical events of

		torical development of Russia, the historical heritage and cultural traditions of your country, be able to determine the roles of historical figures and cultural events in the domestic historical process, have the skills to identify cause-and- effect relationships in history; Knows the features of the beha- vior of various national-ethnic, social-class groups, confessional groups; knows how to take into account in the process of carrying out professional activities the pe- culiarities of national and cultural development, social status of citi- zens; possesses the skills of ana- lyzing the sociocultural space	processes and cultural events in the context of world history are not formed	poorly masters the skills of comparative analysis of historical processes and cultural events in the context of world history	levels; has minor diffi- culties in conducting a comparative analysis of historical processes and cultural events in the context of world history	different levels; confi- dently conducts a com- parative analysis of historical processes and cultural events in the context of general
UC-6	Able to maintain the proper level of physical fitness to ensure full-fledged social and professional activity	Know and follow the norms of a healthy lifestyle; be able to take into account the physiological characteristics of the body when doing physical culture to maintain health and performance; possess the skills of time planning for the optimal combination of physical and mental stress and ensuring performance	Has poorly formed ideas about the norms of a healthy lifestyle, neglects them; does not know and does not take into ac- count the physiological characteristics of the body when doing physi- cal culture to maintain health and working ca- pacity; does not possess the skills of time plan- ning for the optimal combination of physical and mental stress and ensuring performance	Has poorly formed ideas about the norms of a healthy lifestyle, neglects them; knows poorly and does not take into ac- count the physiological characteristics of the body when doing physi- cal culture to maintain health and working ca- pacity; in most cases, it is not optimal to plan the time for a combination of physical and mental stress and ensuring per- formance	Has formed ideas about the norms of a healthy lifestyle, observes them; knows, but does not al- ways take into account the physiological charac- teristics of the body when doing physical culture to maintain health and working capacity; does not always plan the time optimally for com- bining physical and men- tal stress and ensuring performance	Has formed ideas about the norms of a healthy lifestyle, observes them; knows and al- ways takes into account the physiological cha- racteristics of the body when doing physical culture to maintain health and working capacity; optimally plans time for a combi- nation of physical and mental stress and en- suring performance
UC-8	Knows legal and ethical norms, is able to assess the consequences of violation of these norms	Knows the fundamental concepts of legal dogma, is able to recog- nize the type and legal force of a legal act	Cannot formulate signs sufficient to determine the main legal phenome- na, is not able to deter- mine the type of legal act, is not able to deter- mine the place of a nor- mative act in the hie- rarchy	Formulates signs suffi- cient to determine the main legal phenomena, is able to distinguish a normative act from an individual one by details and addressee, defines the subject of rights and obligations	Gives adequate legal definitions, knows the hierarchy of regulatory legal acts, knows the formal and substantive requirements for law enforcement acts	Gives adequate doc- trinal and legal defini- tions, knows some scientific approaches, confidently determines the type and legal force of a legal act by its content, assesses a le- gal act from the stand- point of ensuring civil rights and freedoms

UC-10	Able to make in- formed economic decisions in various areas of life	Knows the basic principles of functioning of the economy, me- thods of economic and financial planning; knows how to analyze information to make informed economic decisions, apply eco- nomic knowledge when perform- ing practical tasks; has the ability to use the basic provisions and methods of economic sciences in solving problems in various areas of life	Does not possess know- ledge about the prin- ciples of the economy, is unable to use them in various branches of life	Has some knowledge of the principles of the economy, is able to apply them to analyze information, has difficulties in solving financial planning problems in various areas of life	Has knowledge of the principles of the econo- my, is able to apply them to analyze information, has difficulties in solving financial planning prob- lems in various areas of life	Has full knowledge of the principles of the economy, is able to apply them to analyze information and solve financial planning problems in various areas of life
GPC-1	Possesses basic knowledge of the modern scientific picture of the world based on the provi- sions, laws and me- thods of mathemat- ical and natural sciences	Knows the main achievements of natural sciences; knows how to apply the basic provisions and laws of natural sciences to de- scribe the scientific picture of the world; possesses the skills of analysis and critical assessment of various theories in the field of natural science	The student is not aware of the main achieve- ments of pharmacy; the ability to apply the basic provisions and laws of mathematics, biology, physics, chemistry, bota- ny to describe the scien- tific picture of the world has not been formed; lack of skills to analyze and critically evaluate various theories in the field of pharmacy	The student is partially aware of the main achievements of pharma- cy; poorly formed skills to apply the basic provi- sions and laws of ma- thematics, biology, phys- ics, chemistry, botany to describe the scientific picture of the world; poorly formed skills of analysis and critical as- sessment of various theo- ries in the field of phar- macy	The student is sufficient- ly aware of the main achievements of pharma- cy; knows how to apply the basic provisions and laws of mathematics, biology, physics, chemi- stry, botany to describe the scientific picture of the world; has little diffi- culty in analyzing and critically evaluating var- ious theories in the field of pharmacy	The student is well aware of the main achievements of phar- macy; freely applies the basic provisions and laws of mathemat- ics, biology, physics, chemistry, botany to describe the scientific picture of the world; successfully analyzes and critically evaluates various theories in the field of pharmacy
GPC-2	Able to understand the principles of operation of mod- ern information and communication technologies and use them to solve professional prob- lems, taking into account the re- quirements of in- formation security	Knows the main sections of in- formatics and information and communication technologies used in professional activities; the ability to choose and use software to solve problems in your subject area; has a level of proficiency in software and information and communication technologies ne- cessary for the effective imple- mentation of professional activi- ties	The student discovers a low level of knowledge of the main sections of informatics and informa- tion and communication technologies used in pro- fessional activities; the student does not know how to expediently choose and use software tools for solving prob- lems in his subject area; has an extremely low level of proficiency in software and information and communication technologies, which al- lows him to effectively	The student discovers a low level of knowledge of the main sections of informatics and informa- tion and communication technologies used in pro- fessional activities; the student finds it difficult to choose and use soft- ware tools to solve prob- lems in his subject area; has a low level of profi- ciency in software and information and commu- nication technologies, which makes it possible to effectively carry out professional activities	The student discovers systematic knowledge of the main sections of in- formatics and informa- tion and communication technologies used in pro- fessional activities, which have minor gaps; the student is able to choose the necessary software tools to solve the problems of his sub- ject area; possesses a sufficient level of know- ledge of software and information and commu- nication technologies, which allows him to ef-	The student discovers a systematic, deep know- ledge and understand- ing of the main sections of computer science and information and communication tech- nologies used in pro- fessional activities; knows how to choose the necessary software for the optimal solution of problems in their subject area; possesses a high level of profi- ciency in software and information and com- munication technolo-

			carry out professional activities		fectively carry out pro- fessional activities, tak- ing into account the re- quirements of informa- tion security	gies, which allows him to effectively carry out professional activities taking into account the requirements of infor- mation security
GPC-3	Able to apply knowledge about morphological and functional characte- ristics, physiologi- cal conditions and pathological processes in the human body to solve professional problems	Knows the morpho-functional organization of the human body and the physiological foundations of its life, the main ways of regu- lating the function of the physio- logical systems of the body, the principles of interaction of the human body with the external environment and the mechanisms of functioning of sensory systems. Knows how to assess the main functional indicators of a healthy person.	Not able to assess the basic functional indica- tors of a healthy person. Not able to assess patho- logical processes in the human body	Able to assess the main functional indicators of a healthy person. Cannot statistically process ex- perimental data. Able to assess pathological processes in the human body, does not have in- formation on the preven- tion or elimination of the disease	Able to assess the main functional indicators of a healthy person, makes minor errors in the statis- tical processing of expe- rimental data. Able to assess pathological processes in the human body, does not fully pos- sess information on the prevention or elimination of the disease	Confidently evaluates the main functional indicators of a healthy person's vital functions, performs excellent sta- tistical processing of experimental data. Confidently evaluates pathological processes in the human body
GPC-4	Able to carry out professional activi- ties, taking into account specific economic, envi- ronmental, social factors within the framework of the system of legal reg- ulation of the sphere of circula- tion of medicines	Knows the norms and rules estab- lished by the authorized state au- thorities in solving the problems of professional activity in the field of drug circulation; is able to take into account the economic and social factors that influence the financial and economic activities of pharmaceutical organizations when making managerial deci- sions; possesses the skills of per- forming labor actions, taking into account their impact on the envi- ronment, avoiding the occurrence of environmental hazards.	It neglects the obser- vance of the norms and rules established by the authorized state authori- ties in solving the prob- lems of professional ac- tivity, is not able to take into account economic, environmental and social factors in the implemen- tation of professional activity.	He makes significant mistakes, interpreting the norms and rules estab- lished by the authorized state authorities in solv- ing the problems of pro- fessional activity, is not able to fully take into account economic, envi- ronmental and social factors in the implemen- tation of professional activities.	Allows minor errors, interpreting the norms and rules established by authorized government bodies in solving prob- lems of professional ac- tivity, is able to take into account economic, envi- ronmental and social factors in the implemen- tation of professional activities.	Complies with the norms and rules estab- lished by the autho- rized government bo- dies when solving problems of profes- sional activity, is able to take into account economic, environmen- tal and social factors in the implementation of professional activities.
GPC-5	Able to carry out professional activi- ties in accordance with ethical stan- dards and moral principles of phar- maceutical ethics and deontology	Knows the aspects of integrative interactions with the medical staff of the department and employees of other departments of the clinic, the basic principles of biomedical ethics and deontology. Knows	Does not know the as- pects of integrative inte- ractions with the medical staff of the department and employees of other departments of the clinic, the basic principles of biomedical ethics, does not know how to comply with the basic principles of bioethics in relation to	Poorly knows the aspects of integrative interac- tions with the medical staff of the department and employees of other departments of the clinic, the basic principles of biomedical ethics. Does not fully comply with the basic principles of bio- ethics in relation to med-	Knows aspects of inte- grative interactions with the medical staff of the department and em- ployees of other depart- ments of the clinic, the basic principles of bio- medical ethics. Knows how to comply with the basic principles of bio- ethics in relation to med-	He is well aware of the aspects of integrative interactions with the medical staff of the department and em- ployees of other de- partments of the clinic, the basic principles of biomedical ethics. Con- fidently complies with the basic principles of

PC-1Able to present the results of his work orally and in write ing in accordance with the norms and munityAnde to present the condicions of pharmaceutical organizations in accordance with the norms and incines in the conditions of pharmaceutical organizationsNot able to manufacture of a partice to provide first aid to the victim making minor mistakes.Hods of first aid, is not andic in practice to provide first aid to the victim making minor mistakes.Hord and or and organizati tion in case of oscience provide first aid to the victim making minor mistakes.Hord and programization and to the to result so first wide the quality control of the quality control of medicines in the condi- tions of pharmaceutical organizationsHord and the quality control of medicines in the condi- to result so first wide the conditions of pharmaceutical organizationsMot able to control the quality of medicines in the condi- to so of pharmaceutical organizationsAllows minor errors in the quality control of medicines in the condi- tions of pharmaceutical organizationsComprehe to forely to to forely to to forely to to forely to to forely to to result so for the conditions of pharmaceutical or ganizationsAllows minor errors in the quality control of medicines in the condi- tions of pharmaceutical or ganizationsAllows minor errors in to forely to to forely to to forely to to fore the conditions of pharmaceutical or ganizationsAllows the forender to forely to to forely to to fore the conditions of pharmaceutical or ganizationsPC-2Able to carry out technological processes in the manufacture of medicines tions of pharmaceutical or ganiz	ics in relation t al and nursin Possesses th of integrativ ctions wit al personnel	medica staff. skills interac	ical and nursing staff. Possesses the skills of integrative interactions with medical personnel, making minor mistakes	ical and nursing staff. Have the skills of inte- grative interactions with medical personnel, but makes gross mistakes	physicians and nurses. Does not possess the skills of integrative inte- ractions with medical personnel	department and employees of oth- er departments of the clinic.		
PC-2Able to carry out technological processes in the control of medicinal products at the stage of development, manu- facture, distribution, transporta- taccordance with regulatory and technical documentation; is able to carry out quality control of medicines in the conditions of phar- maceutical organizationsin the quality control of medicines in the condi- tions of pharmaceutical organizationsthe quality control of medicines in the condi- tions of pharmaceutical organizationsPC-2Able to carry out technological processes in the manufacture of me- dicines in the conditions of pharmaceutical or ganizations.Not able to manufacture the prescribed dosage form in the conditions of pharmacy organizations.Able to make a given dosage form in the condi- tions of pharmacy organizations.Able to manufacture a given dos tions of pharmacy organizations.Able to manufacture a given dos tions of pharmacy organizations.Able to condi- tions of pharmacy organizations.Able to condi- tions of pharmacy organizations.Able to condi- tions of pharmacy organizations.	to fully provid id on the territor pharmaceutic zation in case of encies amon is and employed he organization the arrival of the ance team.	first ai of a organi emerg visitor of th before	thods of rendering first aid, is able in practice to provide first aid to the victim, making minor	thods of first aid, is not able in practice to pro- vide first aid to the vic-	aid on the territory of a pharmaceutical organiza- tion in case of emergen-	ance of using first aid techniques in case of poisoning; characteris- tic signs of various types of poi- soning; knows how to use first aid techniques; determine the condi- tion of the victim by external signs; choose the most effective way to provide first aid and the means (including helpers) for its implementation; owns the tech- nologies of using various first aid	first aid on the terri- tory of a pharma- ceutical organiza- tion in case of emergencies among visitors before the arrival of an ambul-	GPC-6
technological processes used in processes in the manufacture of medicines; dicines in the con- dicines in the con-	rehensive abilit ly carry out qua ontrol actions of ines in the cond of pharmaceutics zations	to free ity co medici tions o	the quality control of medicines in the condi- tions of pharmaceutical	in the quality control of medicines in the condi- tions of pharmaceutical	quality of medicines in the conditions of phar-	Knows the principles of quality control of medicinal products at the stage of development, manu- facture, distribution, transporta- tion, storage and consumption in accordance with regulatory and technical documentation; is able to carry out quality control of me- dicines in the conditions of phar- maceutical organizations in ac- cordance with regulatory re- quirements, orders and instruc- tions; possesses the skills of quali- ty control of medicines in the conditions of pharmaceutical or-	results of his work orally and in writ- ing in accordance with the norms and rules adopted in the professional com-	PC-1
organizations process the skills of implementation, post sesses the skills of implementation of technological processes in the manufacture of medicines. process the skills of implementation, post sesses the skills of implementation of technological processes in the manufacture of medicines. PC-3 Ready to sell medi- Knows the regulatory and legal Does not know the rules Allows significant errors Allows minor errors in Able to fit	to manufacture dosage form in acy, the cond of the technolog rocess are full	given pharm tions of cal pr met.	given drug in the condi- tions of pharmacy organ- izations, but the condi- tions of the technological process are not fully met.	dosage form in the con- ditions of pharmacy or- ganizations with errors.	the prescribed dosage form in the conditions of pharmacy organizations.	Knows the basics and principles of technological processes used in the manufacture of medicines; knows how to make a given do- sage form in the conditions of pharmacy organizations; pos- sesses the skills of implementa- tion of technological processes in the manufacture of medicines.	technological processes in the manufacture of me- dicines in the con- ditions of pharmacy organizations	

	cines in accordance with the rules of wholesale trade, the procedure for retail sale and the proce- dure for the transfer of medicines estab- lished by law	documentation governing the op- eration of a wholesale organiza- tion, as well as pharmacies for dispensing medicines and other pharmaceutical goods to the popu- lation and medical organizations; knows how to sell medicines and other goods of the pharmacy range; owns the normative and legal documentation governing the operation of a pharmacy for the dispensing of medicines and other pharmaceutical goods to the population and medical organiza- tions, the rules for the wholesale trade of medicines; skills in the sale of medicines in accordance with the rules of wholesale trade, the procedure for retail sale and the procedure for the transfer of medicines established by law.	of wholesale trade, the procedure for retail sale and the procedures for the transfer of medicines established by law	in the sale of medicines in accordance with the rules of wholesale trade, the procedure for retail sale and the procedure for the transfer of medi- cines established by law	the sale of medicines in accordance with the rules of wholesale trade, the procedure for retail sale and the procedure for the transfer of medicines established by law	the sale of medicines in accordance with the rules of wholesale trade, the procedure for retail sale and the pro- cedure for the transfer of medicines estab- lished by law
PC-4	Ready to provide storage of medi- cines and other goods of the phar- macy range	Knows the theoretical foundations and legislative regulation of the procedure for storing various groups of goods in the pharmacy range, knows how to distribute incoming products in the retail and wholesale link to storage lo- cations, draw up documentation of the established sample for stor- ing medicines in a pharmacy; owns the skills of organizing the storage of various groups of me- dicines.	Knowledge is unsyste- matic, fragmentary, dif- ficulties in understanding the basics of the storage procedure for various groups of goods in the pharmacy range	Knows the main provi- sions of the procedure for storing various groups of goods in the pharmacy assortment	Allows minor errors in the use of the basic pro- visions of the storage procedure for various groups of goods in the pharmacy range, it is difficult	Comprehensive in- depth knowledge of drug storage
PC-5	Able to inform and advise the popula- tion and medical workers about me- dicines and other goods of the phar- macy range	Knows the main regulatory and legal documents in the field of drug circulation; the basics of organizing pharmaceutical care (outpatient and inpatient) to vari- ous groups of the population; the procedure for dispensing medi- cines from the pharmacy to the	Difficulties in providing advice to medical profes- sionals and drug users in accordance with the in- structions for use	Poor knowledge of me- dicinal products and data included in the instruc- tions for use, significant difficulties in theoretical issues	Minor errors in providing advice to medical work- ers and consumers of medicinal products in accordance with the in- structions for use of the medicinal product	Comprehensive in- depth knowledge of advice to healthcare professionals and drug users

PC-7	Able to participate in the organization, maintenance and application of basic management prin- ciples in pharma- ceutical organiza- tions	population and medical organiza- tions; knows how to inform the population, medical and pharma- ceutical workers about medicines, their analogues and substitutes; owns ways to determine the in- formation needs of drug consum- ers Knows the basic principles of management in the pharmaceuti- cal industry, business processes in pharmaceutical organizations; knows how to apply the basic management methods typical for the pharmaceutical industry, op- timize business processes in pharmaceutical organizations; owns - the skills of managing a pharmaceutical organization, the skills of optimizing the business	Unsystematic, fragmen- tary knowledge about management in pharma- ceutical organizations, significant difficulties in theoretical issues related to the basic principles of management in the pharmaceutical industry, in pharmaceutical organ- izations and their struc- tural divisions	Significant errors in the application of the basic principles of manage- ment in the pharmaceuti- cal industry, in pharma- ceutical organizations and their structural divi- sions	plication of basic man- agement principles in the pharmaceutical industry, in pharmaceutical organ-	Comprehensive in- depth knowledge of pharmaceutical man- agement. The answer is well-grounded, well- reasoned.
PC-8	Capable of carrying	processes of a pharmaceutical organization. Knows the basics and principles	Not able to manufacture	Capable of making a	Able to manufacture a	Able to manufacture a
	out technological processes in the industrial produc- tion and manufac- ture of medicines	of technological processes used in the industrial production of medi- cines; knows how to make a given dosage form in the laboratory; possesses the skills of implemen- tation of technological processes in the production of medicines.	the prescribed dosage form in the laboratory.	predetermined dosage form in the laboratory with errors.	given dosage form in laboratory conditions, but the conditions of the technological process are not fully met.	given dosage form in laboratory conditions, the conditions of the technological process are fully met.

Criteria for assessing the student's answer on the state exam

The answer is assessed for the mark:

"Excellent" if the typical situational task is correctly solved and a complete, correct and detailed answer with theoretical justification is given to all questions related to professional competencies in the field of technology, pharmacognostic and pharmaceutical analysis of drugs, organization, management and economics of pharmaceutical activities. The mark "Excellent" is impossible if the student has shown satisfactory or unsatisfactory knowledge on certain questions.

"Good", if a typical situational problem is solved without significant errors, some inaccuracies were made in the formulation of the answer, but in general, a complete answer was given on issues related to professional competencies in the field of pharmaceutical technology, pharmacognostic and pharmaceutical analysis of drugs, organization, management and economics of pharmaceutical activities. Assessment "Good" is impossible if the student has shown unsatisfactory knowledge on at least one of the proposed questions.

"Satisfactory" if, when solving a typical situational problem, some significant errors were made in the formulation of the answer, lack of in-depth theoretical knowledge is shown, poorly substantiated and insufficiently demonstrated professional competence in the field of technology, drug quality assessment, management and economics of pharmacy, for more than 75 % of the questions attached to the problem or questions arising from it, an incomplete (or inaccurate) answer was given.

"Unsatisfactory", if a typical situational problem is not solved or incorrectly solved, gross errors were made when answering more than 75% of the questions arising from or attached to the problem, and an incorrect answer or no answer was given to additional questions asked.

PROCEDURE FOR ORGANIZING AND CARRYING OUT PROTECTION OF THE GRADUATE QUALIFICATION WORK OF A SPECIALIST

The final qualification work (hereinafter - FQW) is the final stage of state certification and shows the graduate's readiness to independently solve theoretical and practical problems based on the study and generalization of modern problems of pharmacy. It is a mandatory part of the state final certification and is a complete development, in which, based on the study and generalization of modern problems of pharmacy, an independent solution to a particular research or practical problem is proposed.

The purpose of the FQW is to determine the compliance of the results of the development of the educational program by the students with the requirements of the MSOS PSU in the specialty 33.05.01 Pharmacy, as well as the systematization, consolidation and expansion of theoretical knowledge and practical skills in the specialty.

When performing an FQW, a student, relying on the knowledge gained during training and the formed general cultural, general professional and professional competencies according to the SEES PSU in the specialty 33.05.01 Pharmacy, must show the ability and ability to independently solve theoretical and practical problems, competently present special information, reasonably substantiate and defend in front of the audience your point of view.

FQW is carried out on the basis of theoretical knowledge and using the practical skills acquired by the graduate during the entire period of study. Predominantly, the FQW should be focused on the knowledge obtained as a result of studying special disciplines, as well as in the process of a student undergoing industrial practice.

The implementation of FQW is carried out by students directly at the university with the provision of a workplace, laboratory equipment and technical means necessary for work, as well as in other institutions, organizations and enterprises.

FQW must correspond to the specialty and may contain the solution of a private research or practical problem posed within one or several special disciplines (pharmaceutical

chemistry, pharmacognosy, management and economics of pharmacy, pharmaceutical technology, pharmacology).

When preparing and defending the FQW, the student must show the level of his own mastery of the competencies provided for by the curriculum, the ability to professionally present special information, to reveal his creative and scientific potential.

The author of the FQW is responsible for all the information contained in it, the validity of the conclusions and protected provisions, the accuracy of factual material and other information.

FQW can be performed by several students together. The process of preparing and defending an FQW is accompanied and confirmed by the following documents:

- By the order of the dean of the faculty on graduates admitted to the State final attestation (6 calendar days before the date of the first state attestation test);

- An order on the topics of the FQW for each graduate (communicated to the students no later than 6 months before the start date of the state final certification);

- Order on securing the leaders (if necessary, consultants) of the FQW of each graduate (no later than 5 months before the day of defense of the FQW);

- Order on the composition of state examination commissions (no later than December 1 (for the chairman) and December 31 (for members of the SEB) of the previous year of the state final certification);

- Schedule of work of state commissions;

- Schedule of state certification tests (no later than 30 calendar days before the date of the first state certification test);

- The list of FQW reviewers (not later than 1 month before the date of the WRC defense);

- Graduation qualifying work (provided to the head in time, not later than 2 weeks before the date of defense);

- Withdrawal of the head for the final qualifying work (no later than 7 days before the date of defense of the FQW);

- A review of the final qualifying work (no later than 7 days before the date of defense of the FQW).

The FQW preparation process includes the following stages: - appointment of the WRC leader;

- selection of the theme of the FQW;

- receiving an individual task plan from the head;
- selection and study of literature on the research topic;
- drawing up a plan for the FQW;

- execution of experimental work, collection of material, its analysis and generalization;

- writing FQW; - presentation of the FQW to the scientific advisor;

- completion of the FQW in accordance with the remarks of the scientific supervisor; - preparation of the final copy of the FQW;

- obtaining the opinion of the supervisor;

- receiving a review;
- preparation of a report and presentation for the defense of the FQW;
- pre-defense of FQW at the department;

- defense of the FQW at a meeting of the State Examination Commission.

After the defense, the final qualifying works are handed over for storage to the Department of Pharmacology and Pharmacy. The shelf life of graduate qualification works at the department is 5 years, after which the works are submitted to the archive.

APPROVAL OF THEME AND SCIENTIFIC GUIDANCE

Themes of the final qualification works are updated annually, approved by the Academic Council of the Faculty of Chemistry and communicated to the students by the dean

of the faculty no later than 6 months before the start date of the state final certification under signature.

A student can propose his own FQW topic if he justifies the expediency of its development for practical application in the relevant field of professional activity or at a specific object of professional activity. In this case, he submits an application addressed to the dean of the faculty. The application must be submitted no later than 6 months before the start date of the state final certification. The proposed topic is approved by the Academic Council of the Faculty.

The topic of the FQW is assigned to the student within a month from the day the recommended topics of the FQW are brought to the attention of the students on the basis of a personal statement. The statement is signed by the head of the department and approved by the dean of the Faculty of Chemistry.

The application specifies the topic of the final qualifying work and information about the scientific supervisor of the FQW.

When choosing a topic, the student is encouraged to:

• take into account the possibilities of access to empirical data, scientific sources on the topic;

• identify the presence of unexplored problems in this area;

• take into account the relevance and novelty of the problem for science, society, the state, specific organizations, institutions, take into account the interests and needs of enterprises and organizations, on the materials of which the work was done;

• determine for yourself whether your own potential (theoretical knowledge, knowledge of the methodological base, the ability to use it correctly) will allow you to conduct a full-fledged study of the selected problem and offer your own scientifically grounded conclusions;

• understand that the FQW uses both theoretical and empirical research methods, and it should be devoted to solving a scientific and practical problem. The scientific supervisor of the FQW is appointed from among the professors and associate professors of the department, incl. with the academic title of associate professor or professor. As an exception, university lecturers and employees who do not have academic degrees and titles, but have extensive experience in scientific advisor is appointed simultaneously with the consolidation of the topic. The appointment of a scientific advisor is carried out by order of the rector of Perm State University, the order is issued no later than 5 months before the day of defense of the FQW.

Replacement of the supervisor is allowed by the order of the dean of the Faculty of Chemistry only in the presence of objective circumstances no later than 3 months before the defense.

In case of objective impossibility of scientific leadership, replacement is possible at a later date. The duties of the supervisor include: • assistance in determining the topic of the FQW, writing an abstract, determining the order of implementation and drawing up a work plan;

• recommendation on the selection of the main scientific sources, reference materials, normative documents on the topic of the work; • providing the student with a material base for research;

• Conducting planned systematic consultations, adjusting the student's activities in the course of work, monitoring research results and their quality;

• implementation of methodological guidance on the profile of the research; • assistance in the development of modern scientific research methods;

• assistance in preparation for publication of a publication on the subject of FQW; • control of the progress of work and the degree of its compliance with the requirements; • prevention of plagiarism at work;

• drawing up a response to completed work.

The opinion of the supervisor should characterize:

- the performance of the work in accordance with the established deadlines, the attitude of the graduate to the performance of the work, the degree of independence and initiative of the student;

- the ability to find and organize literature;

- scientific level, completeness, quality and novelty of the development of the topic, advantages and disadvantages of the work;

- possession of modern methods of analysis;

- assessment of the reliability of the results obtained by the student;

- the ability to make calculations and analyze the results obtained, generalize, make scientific and practical conclusions;

- work shortcomings;

- areas of possible use of the results of work;

- availability of publications and speeches of the graduate at conferences;

- conclusion of the scientific advisor.

When performing an FQW, a student is obliged:

- to accept an assignment on an approved topic;

- follow all the instructions of the head;

- comply with fire safety requirements, safety measures when working in laboratories;

- show activity and initiative in conducting research, coordinating their actions with the head;

- to test the work in the form of messages at student and other scientific conferences, publications in scientific journals and collections.

The student has the right to use the library fund, laboratory equipment, reagents and computer equipment of the department when preparing FQW.

GRADUATE QUALIFICATION REQUIREMENTS

Content requirements

The content of the FQW provides for:

- the formulation of a scientific, scientific-production or educational-methodical problem, the development of a new research methodology or its hardware;

- obtaining new results and their interpretation and generalization; - approbation of the results obtained in the form of reports at scientific conferences or publications in scientific journals and collections.

The general requirements for FQW are:

- clarity of the construction of the material,

- logical sequence of presentation of the material, - convincing argumentation,

- brevity and accuracy of formulations,

- concreteness of presentation of the results of work,

- evidence of conclusions and validity of recommendations.

The material in the FQW should be presented clearly, clearly, from a third person, using the accepted scientific terminology, avoiding repetitions and generally known provisions found in textbooks and teaching aids. It is necessary to explain only little-known or contradictory concepts, making a reference to authors expressing different opinions on the same issue.

Requirements for the volume

The final qualifying work is submitted in the form of a manuscript (recommended volume of 30 - 60 pages of the printed test) in the printed and bound form, as well as in the form of an electronic copy.

Requirements for structure and design

- The FQW should contain the following elements:
- title page;
- abstract;
- - content;
- introduction;
- literature review;

- - main part (experimental part, including a description of the methodology and research results and implementation part, including proposals and recommendations based on the research results);

- conclusion;
- list of used literature;
- applications.

The title page of the FQW is drawn up uniformly in accordance with the accepted model (Appendix 1). It contains the full names of the founder of the university, the university itself, faculty, department; the topic of the work (the word "topic" is not written); information about the performer, scientific supervisor; location (city) of the university, year of writing the work. The title page is the first page and is not numbered.

The abstract should briefly reflect the main content of the work and contain information about the structure of the work (number of pages, figures, tables), the purpose of this research, approbation of research results (publications). The abstract is located on a separate page.

Abstract outline:

a) information about the main achievements of scientific research (the essence of the work performed, research methods, the scope of the results);

b) the number of literary sources

c) the number and nature of illustrations (diagrams, graphs, figures, tables) (Example - Fig. 6. Fig. 2. Graph. 4. Table 7.)

d) the number of pages (Example - 57 P.). The volume of the abstract is up to one page.

The content includes the name of all sections and subsections with the indication of the page numbers on which the beginning of the material of the chapter, section (subsection) is located. All chapters, sections (subsections) should be titled and numbered in Arabic numerals. The wording of the titles of chapters and sections (subsections) in the table of contents must exactly correspond to the headings in the text of the work.

In the main text, chapter headings are formatted in capital letters in the center, and subheadings of sections (subsections) - starting with capital letters.

On the next page, after the content, it is desirable to provide a list of abbreviations and conventions used in the work.

The introduction briefly characterizes the current state of the scientific problem to which the work is devoted. It substantiates the choice of the topic, its relevance and significance, determines the object and subject of research, formulates goals and objectives. The methods used in the research are indicated. The scientific novelty and the provisions submitted for defense are indicated, publications, approbations (if any) are indicated. The volume of administration is 1.5-2 P.

Literature review

The purpose of the literature review is to present and systematize the knowledge accumulated on the issue under study both in our country and abroad, a critical analysis of previously published works in this area of research. The information contained in the literature review should make it possible to objectively assess the level of scientific research of the problem, the feasibility of its solution, and choose the right ways and means to achieve the research goal. In a literary review, you should cover only the material that is directly related to the topic of the work. Conflicting information contained in different source documents should

be carefully analyzed and discussed. The list of used literature should include at least 30 sources, including foreign ones, including works of recent years. The volume of the literature review 15-25 P.

Main part

The materials of the main research part must be collected or obtained independently by the student during the period of internship. These materials should be based on the research work of the department, scientific or industrial organizations. The research part should be a completed research, indicating the level of professional training of the author.

Based on the results of the research, the student develops proposals and recommendations.

The conclusion contains conclusions concerning the entire work and corresponding to the tasks set in the introduction, practical recommendations for using the work, and a proposal for a specific solution to problems. Negative results of work are indicated along with positive ones. The conclusions in the conclusion should be concise and clear, giving a complete picture of the content, significance, validity and effectiveness of the developments. The volume of conclusions is 1-1.5 P.

The list of used literature includes all the sources on the topic that the student got acquainted with when writing the work, arranged in alphabetical order (at least 30). Citation must be accurate, in compliance with all the features of the original. A reference to a literary source, as well as the presentation of other people's thoughts in the text of the WRC, must be accompanied by a number in square brackets, under which the source is given in the bibliography. In the text, the quotation is enclosed in quotation marks and is accompanied by a link, which indicates the number of the source according to the list of references and the page on which the quoted text is located. For example, [7, p. 105]. If the author formulates his thought, relying on several sources, then in brackets it is indicated as follows: [10; 48; 55]. The absence of links to materials, statements, opinions, statements, statements, etc. that do not belong to the author is equated to plagiarism and copyright infringement and is the basis for preventing the author of the FQW from protection at any stage of its consideration.

The list of used sources, including Internet sources, and links to them in the text of the work is made in accordance with state educational standard R 7.0.5-2008 "Bibliographic reference. General requirements and rules for drawing up ".

Appendices contain auxiliary materials that take up a large volume and for this reason are not included in the main text: additional tables, figures, photos, formulas and graphs, spectra, instructions, methodological material, computer printouts, descriptions of devices used in experiments, acts of implementation, illustrations of auxiliary character and other documents.

Each application begins with a new page, in the upper right corner of which is written the word "Application" and a number indicated by an Arabic numeral (without the number sign). Each application must have a title (written in the center of the sheet). In the lower left corner, you can indicate on the basis of which sources the application was compiled. The scope of applications is not limited.

The text of the FQW should be typed in a text editor MS Word and printed on white paper in Times New Roman font in size 14 pt in black. Figures, graphs, tables and appendices are not included in the calculation of the volume of the text part of the work. Text page format - A4, page orientation - portrait, left margin - 30 mm, right margin - 10 mm, top and bottom margins - 20 mm. Formatting of paragraphs: Text alignment - in width, word hyphenation is allowed. Left and right indentation - 0. The first line is indented - 1.25 cm. The spacing before and after - 0. Line spacing - one and a half (1.5 lines). The page number is placed at the bottom of the page in the center, on the first page (title page) the number is not placed (a "special header and footer for the first page" is set).

The table of contents, introduction, all chapters, conclusion, bibliography, as well as the appendix are printed from a new page.

The distance between the heading and the following text should be one line, between

sections in one chapter - 2 lines. No additional spacing is required between the subsection title and the text.

llustrations. All illustrative material (photographs, diagrams, drawings, etc.) are referred to as drawings. Each drawing is accompanied by a signature. The figure caption is located below it and is drawn up as follows: Fig. 1. Title. The numbering of figures should be continuous throughout the entire work. Figures should be placed immediately after reference to them in the text.

Illustrations should be done using computer graphics. The number of illustrations placed in the work is determined by its content and should be sufficient in order to give the stated text clarity and expressiveness. The axes of the graphs should reflect the measured values and their units of measurement. The scale should be drawn on the axes using strokes of the same size. The scale step must be chosen from the recommended range: 1, 2, 5 units.

Tables. The digital material presented in the work is recommended to be drawn up in the form of tables. Each table must have a title and a sequential number. Tables are numbered within a chapter in Arabic numerals. Above the upper right corner of the table, place the inscription "Table" indicating the serial number. The heading is placed under the word "Table" in the center. The word "Table" and the title are printed in capital letters, font 14, bold. The title should not be underlined. The structure of the table should be as simple as possible, it should not have few filled columns. Tables are divided into columns (columns). All of them must have headings with a capital letter. If necessary, the headings of the columns can have subheadings. Subheadings begin with lowercase letters (if they have a meaning in their own right, they begin with uppercase letters). The contents of the tables (digital data) are centered, font size 12. Column "No" should not be included in the table if there is no need to refer to these numbers in the text.

The table should be placed after the first mention of it in the text. Large tables - more than one printed sheet, should be placed in annexes. When transferring the table to the next page, the words "Continuation of the table." indicating the number. When referring to a table, its full number is indicated in the text, and the word "table" is abbreviated, for example, (Table 1). The numbering of tables should be continuous throughout the entire work. If there is only one table in the work, then it is not numbered and the word "Table" is not written.

If the compiler of the table does not have information to fill in a particular cell of the table, then an ellipsis (...) is put or "no information" is written. In the absence of a phenomenon, that is, the ability to put down any information in a cell of the table, a dash is put.

Formulas are given in the text after the first mention of them. Calculation formulas in the text are highlighted in a separate line in the center, font 12, no highlight, with a detailed explanation of each character (when it is first encountered). The numbering of formulas should be continuous throughout the entire work, the number is located to the right of the formula along the edge of the text. The link in the text should be of the form (1), which means the first formula.

All newly obtained compounds must be named. For the names of organic compounds, the IUPAC nomenclature should be used. For brevity and clarity of discussion of the connection, it is recommended to number using Roman numerals (in the text in brackets). In the following, instead of the full name of a compound or formula, a Roman numeral with an auxiliary word is given. For example, acid (II), compound (X).

ADMISSION TO PROTECTION

The work completed and signed by the student is submitted to the supervisor for drawing up a review and sending it for review no later than 2 weeks before the date of defense of the FQW.

The final qualifying work is submitted in printed form and in the form of an electronic file. The absence of an electronic file is the basis for "denial" to protection.

The supervisor carefully examines the work, signs it and draws up a short written review of the student's work during the preparation of the final qualifying work.

The supervisor is obliged to check the work for the presence of incorrect borrowings that are not properly referenced, and to assess the degree of independence of the text, which takes into account not only formal, but also meaningful borrowings.

The opinion of the head of the FQW is provided to the head of the department no later than 7 days before the date of the defense of the FQW to the students.

In order to control the quality of the content of the FQW and prepare students for its defense, the graduating department conducts a preliminary defense of all the works of the department at an extended meeting.

For preliminary defense, the student presents: full unbound (unbound) text of the work; report on the results of the work carried out during the preparation of the FQW; presentation.

The pre-defense of the FQW is carried out no later than 5 calendar days before the date of defense by a commission consisting of the head of the department and the teaching staff of the graduating department. On the pre-defense, the presence of a leader is obligatory, who provides feedback on the student's work during the preparation of the FQW. If several students perform work, the manager submits a review of their joint work during the preparation of the FQW. During the pre-defense, the content of the FQW is checked for compliance with the declared topic and the task of the head, the structure and correctness of the design, presentation and (or) illustrative material, a presentation is heard for the defense.

After hearing the message, the commission recommends the student to make the necessary corrections and additions to the work, and also makes a decision about the readiness of the work for defense. Remarks and additions to the FQW, expressed in the pre-defense, must be taken into account by the graduate before submitting the work to the State Examination Commission.

Based on the results of the preliminary defense, the head of the department makes an appropriate entry on the admission of the FQW to the defense on the title page of the work. The decision on admission to the defense of FQW that have not passed the pre-defense is made at a meeting of the department.

REVIEW OF FQW

For the reviewing of the final qualifying work, the specified work is sent to the head of the corresponding department to one or more reviewers. The approval of the reviewers is carried out at a meeting of the specified department no later than 1 month before the date of defense of the final qualifying work.

As a reviewer, a teacher, a researcher from other departments or specialists from educational, research, industrial and other institutions and organizations, preferably with a candidate's or doctoral degree, who is well versed in issues related to the topic of work, can be appointed.

The FQW reviewer cannot be a teacher of the department in which it was performed.

The reviewer is obliged to familiarize himself with the manuscript, express his comments, prepare a written review. The review must be reasoned to reflect the opinion of the reviewer about the work. Based on the results of the examination of the FQW, the reviewer submits a written review to the head of the graduating department no later than 7 days before the date of defense of the final qualifying work. If the reviewer is not an employee of the Faculty of Chemistry of Perm State University, then his signature must be certified by the seal in the personnel department at the place of work.

The review of the final qualifying work is characterized by:

- relevance of the topic;
- compliance of the work with the declared topic;

• compliance of the peer-reviewed work with the established requirements in relation to the completeness and degree of development of questions;

• general conclusion about the theoretical, scientific and practical level of work;

• positive aspects of the work (creative approach to the development of a topic, the use of new ideas, the possibility of practical use of the work;

• shortcomings in the work, in the presentation and design of the material;

• the proposed assessment of the work.

The review ends with a general assessment of the work ("excellent", "good", "satisfactory", "unsatisfactory") and a conclusion about the possibility of awarding the graduate with the qualification "Pharmacist".

The head of the relevant department ensures that the student is familiarized with the review and review (reviews) no later than 5 calendar days before the defense of the final qualification work through the student's personal account in the unified teleinformation system of PSU (hereinafter - UTS PSU). Obtaining a negative review is not an obstacle to submitting a work for defense. Changes to the work after receiving feedback and reviews are not allowed.

The texts of the final qualification works are placed by the scientific advisor at UTS PSU no later than 2 days before the defense. Access of persons to the texts of final qualifying works should be ensured in accordance with the legislation of the Russian Federation, taking into account the removal by the decision of the copyright holder of production, technical, economic, organizational and other information, including on the results of intellectual activity in the scientific and technical sphere, on the methods of carrying out professional activities that have actual or potential commercial value due to their unknown third parties.

If it is impossible to post the text of the final qualifying work in UTS PSU, the work manager, no later than the day of defense, places a memo, which indicates the following information: last name, first name, patronymic of the student, specialty, topic of the final qualifying work, its head, reviewer (or reviewers), the reason why the work cannot be posted in full, the date and signature of the supervisor.

Work with a review and a review is transferred to the SEC by the head of the department no later than 2 calendar days before the day of defense. Students who have not fulfilled the requirements of the curriculum, who have not submitted all the necessary documents for the defense according to the list, by the order of the dean are not allowed to defend their final qualifying work and get the opportunity to pass the final certification no earlier than 10 months later.

PROTECTION OF GRADUATE QUALIFICATION WORK

Students who do not have academic debt and who have fully completed the curriculum for the educational program of higher education being mastered are allowed to the procedure for defending the final qualifying work. The defense of the final qualifying work is carried out at an open meeting of the State Examination Commission (SEC).

The defense of the final qualifying work is carried out within the timeframe established by the schedule of the educational process with the participation of at least 2/3 of the members of the full payroll of the commission. Anyone can attend the defense of the final qualifying work.

The scientific advisor and reviewer are present at the defense. If it is impossible for the scientific advisor or reviewer to be present for a good reason, the head of the department, who made a decision on admitting work to the defense, notifies the chairman of the commission and is present at the defense himself.

The approximate procedure for the work of the State Electoral Commission for the defense of the final qualifying work:

• Introduction of the graduate.

At the beginning of the defense, the chairman or secretary of the SEC introduces the graduate, notes the topic of his work, the admission of work to the defense by the relevant department, informs the members of the SEC with the full name of the student. the head of the final

qualifying work, the mark received by the graduate in the state exam. Then the chairman of the SEC gives the floor to the graduate.

• **Graduate report.** It sets out the main provisions of the final qualifying work. 10–12 minutes are allocated for the report, during which the graduate sets out the purpose of the work, the methods used in it, argues the options for solving the problem that he has chosen, and draws a conclusion about the results obtained. In the course of the report, the graduate uses illustrations and graphic materials prepared by him. The report is accompanied by a computer presentation.

• Answers to questions from members of the commission.

• **Reviewer review** (in the absence of reviewer, the secretary of the SEC reads the review text). If necessary, at the request of the commission, the opinion of the scientific adviser can also be announced.

• **Student responses to comments.** After the speech of the reviewer, the student is given the floor to answer the comments and questions contained in the review.

• **Discussion.** The chairman of the SEC provides an opportunity for those present to express their opinion on the work presented for the defense. After the student has made a final speech, the defense ends. The total duration of the defense of the final qualifying work, as a rule, should not exceed 30 minutes.

• Making a decision by the SEC on the compliance of the final qualifying work with the qualification requirements.

EVALUATION OF FQW (INDICATORS AND CRITERIA FOR EVALUATION OF COMPETENCIES)

After the defense, the SEC conducts a discussion of the work in order to determine the estimates. When determining the assessment for the defense of the final qualifying work, the following are taken into account: 1) the content of the work, its compliance with general requirements; 2) the relevance of the task; 3) the quality of the report, literacy of speech, the degree of proficiency in professional terminology; 4) the consistency and validity of the presentation of the results; 5) the reliability of the results and the validity of the conclusions; 6) independence of work performance; 7) the possibility of practical use of the results obtained; 8) the ability to competently answer questions; 9) feedback from the manager and reviewer.

The design of the work, the accuracy of the design, the correct use of information sources, including compliance with the rules for compiling a list of used literature, compliance with the rules of professional ethics, are assessed separately. The correspondence of the style of work to the scientific style of writing is also assessed, as well as the observance of the intermediate and final terms of preparation and delivery of the final qualifying work by the students.

During the defense, the members of the commission assess the student's ability to conduct a discussion and his general level of culture of communication with the audience during the defense. The attestation commission conducts discussion and final assessment of the results of the defense at a closed meeting by a simple majority of votes of the members of the commission with the obligatory presence of the chairman of the commission or his deputy. With an equal number of votes, the chairman's vote at the SEC meeting is decisive.

After analyzing the work according to the specified criteria, the SEC gives an assessment for the defense of the final qualifying work ("excellent", "good", "satisfactory", "unsatisfactory"). The results of the FQW defense are announced on the same day after the SEC meeting.

"**Excellent**" - the work was done in accordance with the requirements. It clearly formulates the topic, goal and objectives of the study, substantiates its relevance, novelty and practical significance. It is of a research nature, contains a well-presented theoretical part, a logical, consistent presentation of the material with appropriate conclusions and reasonable proposals. The content of the work is fully consistent with the topic. The analyzed material has a sufficient volume and allows you to draw reliable conclusions. The work has a positive

review from the supervisor ("excellent"). It is impeccably designed (spelling, accuracy, correctness of footnotes, bibliography);

When defending the work, the student shows a deep knowledge of the issues of the topic, freely operates with research data, makes reasonable suggestions, uses visual aids during the report, competently answers the questions posed.

"Good" - the work is of a research nature, contains a well-presented theoretical part, a sufficiently detailed analysis and critical analysis of the issue under study, is characterized by a consistent presentation of the material with appropriate conclusions. The work was performed in accordance with the requirements for the design of the final (diploma) qualification work. During the defense, the student demonstrates knowledge of the issues of the topic, during the report uses visual aids, without any particular difficulty answers the questions posed. However, there are design flaws in the work. It is not framed neatly enough. The literature list does not fully reflect the available sources on the research topic. The content and results of the study were not reported clearly enough. The graduate did not answer all the questions asked. The work has a positive review from the supervisor with a recommended grade of "good".

"Satisfactory" - is awarded for a work that is of a research nature, contains a theoretical chapter, is based on practical material, but has a superficial analysis and insufficient critical analysis. The work has comments on the content and depth of the study. Conclusions are not specific, recommendations and proposals are poorly reasoned. The work is framed inaccurately, contains typos, errors. The bibliography is limited; a number of important sources on the research topic are missing. The manager's response contains comments on the content of the work. When defending the work, the student shows uncertainty, shows poor knowledge of the issues of the topic, does not give a complete, reasoned answer to the questions asked.

"Unsatisfactory" is awarded for work that is not of a research nature. The student is poorly versed in the research topic, not familiar with the basic concepts and methods. The work contains gross factual errors. The work is insufficient. Conclusions are missing or trivial. There are critical remarks in the manager's review. The work was reported unconvincingly, illogically, there are practically no answers to the questions posed.

A student who has not defended the FQW due to failure to appear at the SEC meeting for a good reason (temporary disability, performance of public or state duties, summons to court, transport problems (flight cancellation, lack of tickets, weather conditions) or in other cases, the list of which is established by Perm State University), has the right to pass it within 6 months after the completion of the state final certification. The student must submit a document confirming the reason for his absence to the dean's office of the Faculty of Chemistry, within a month from the date of the state certification test.

The results of the state final attestation are announced to the graduate on the same day after the registration and approval in the prescribed manner of the minutes of the SEC meeting. Based on the results of the state final certification of graduates, the State Examination Commission makes a decision on awarding them a qualification in the specialty and issuing a diploma of higher pharmaceutical education. A graduate who has not passed the final state attestation within the established timeframe is expelled from a higher educational institution with the issuance of a certificate of study or a period of study.

Indicators and criteria for assessing the competencies of the FQW

Competency code	Competency name	Assessment indicators	Assessment criteria	Method / Tool of assessment
UC-1	Able to analyze problem situations and develop a solution based on a systematic approach	Knows the methodology of analysis and synthesis of systems; methods of modeling and analysis of systems. Knows how to analyze systems. Possesses the skills of a systematic approach to the analysis and solution of problems.	Has knowledge in the field of methodology of analysis and synthesis of systems, demonstrates the ability to analyze systems, has the skills of a systematic approach to analysis and problem solving.	Defense of the FQW (content of work, report, answers to questions from members of the state commission)
UC-2	Able to manage a project, organize and manage the work of a team	Knows how to work independently and in a team. Able to make organizational and managerial decisions and evaluate them	Demonstrates the ability to work independently and in a team, to evaluate the organizational and managerial decisions made	Defense of the FQW (content of work, report, answers to questions from members of the state commission)
UC-3	Able to carry out communications within the framework of academic and professional interaction in Russian and foreign languages	Knows the vocabulary, phonetic and grammar rules of a foreign language, necessary for the formation of communicative competence. Knows how to apply lexical, phonetic and grammatical skills in everyday and professional communication. Possesses the skills of reading, speaking, listening and writing in everyday communication.	Demonstrates knowledge of vocabulary, phonetics and grammar rules of a foreign language, the ability to apply lexical, phonetic and grammatical skills in everyday and professional communication, the ability to read, speak, perceive information in a foreign language by ear	Defense of the FQW (content of work, report, answers to questions from members of the state commission)
UC-5	Able to manage their resources, determine the priorities of their own activities, build and implement a trajectory of self-development	Evaluates own resources (temporary, personal, psychological) Manages own resources (time management, stress management, self-presentation)	Demonstrates knowledge and ability to evaluate their own resources (temporary, personal, psychological), as well as manage their own resources	Defense of the FQW (content of work, report, answers to questions from members of the state commission)
UC-7	Able to create and maintain safe living conditions in everyday life and in professional activity to preserve the natural environment, ensure sustainable development of society, including in the event of the threat and occurrence of emergencies and military conflicts	Knows the causes, signs and consequences of hazards, how to protect against emergencies; basics of life safety. Knows how to identify signs, causes and conditions of emergencies; assess the likelihood of a potential hazard and take measures to prevent it; provide first aid in emergency situations. Possesses the methods of predicting the	Demonstrates knowledge of the signs, causes and consequences of dangers in everyday life and in professional activity, the ability to assess the pos- sibility of emergencies, the skills of first aid in the event of emergencies.	Defense of the FQW (content of work, report, answers to questions from members of the state commission)

UC-9	Able to use basic defectological	occurrence of dangerous or emergency situations; skills to maintain a safe living environment. Has a basic understanding of nosologies	Owns ways of interacting with people	Defense of the FQW
	knowledge in social and professional spheres	associated with disabilities. Shows tolerance for the characteristics of persons with disabilities in the social and professional spheres.	with disabilities and disabilities in the social and professional spheres.	(content of work, report, answers to questions from members of the state commission)
UC-11	Able to form an intolerant attitude towards corrupt behavior	Understands the meaning of the main legal categories, the essence of corrupt behavior, the forms of its manifestation in various spheres of public life.	Knows how to analyze, interpret and apply the law in the field of combat- ing corruption. Possesses the skill of carrying out social and professional activities on the basis of a developed sense of justice and a formed legal culture.	Defense of the FQW (content of work, report, answers to questions from members of the state commission)
GPC-1	Possesses basic knowledge of the modern scientific picture of the world based on the provisions, laws and methods of mathematical and natural sciences	Has an idea of the scientific picture of the world based on the provisions, laws and regularities of the natural sciences. Processes and analyzes the results of experimental research, observations, measurements in professional activities.	Demonstrates knowledge of the scientific picture of the world based on the provisions, laws and patterns of natural sciences. Has the skills to process and analyze the results of experimental research, observations, measurements in professional activities.	Defense of the FQW (content of work, report, answers to questions from members of the state commission)
GPC-2	Able to understand the principles of operation of modern information and communication technologies and use them to solve professional problems, taking into account the requirements of information security	Knows the basics of modern information and communication technologies in solving statistical problems. Knows how to process the received data using a personal computer. Skills in modern methods of natural science research, data analysis, programming.	Demonstrates knowledge of working with modern information and communication technologies and the ability to process the received data using a personal computer and programming tools.	Defense of the FQW (content of work, report, answers to questions from members of the state commission)
GPC-3	Able to apply knowledge about morphological and functional characteristics, physiological conditions and pathological processes in the human body to solve professional problems	Knows the morphofunctional organization of the human body and the physiological foundations of its life, the main ways of regulating the function of the physiological systems of the body, the principles of interaction of the human body with the external environment and the mechanisms of functioning of sensory systems. Knows	Demonstrates the ability to assess the main functional indicators of vital activity of a healthy person, performs excellent statistical processing of experimental data. Confidently evaluates pathological processes in the human body.	Defense of the FQW (content of work, report, answers to questions from members of the state commission)

		how to assess the main functional indicators of a healthy person.		
GPC-5	Able to carry out professional activities in accordance with ethical standards and moral principles of pharmaceutical ethics and deontology	Knows the aspects of integrative interactions with the medical staff of the department and employees of other departments of the clinic, the basic principles of biomedical ethics and deontology. Knows how to comply with the basic principles of bioethics in relation to medical and nursing staff. Possesses the skills of integrative interactions with the medical staff of the department and employees of other departments of the clinic.	Demonstrates knowledge of the aspects of integrative interactions with the medical staff of the department and employees of other departments of the clinic, the basic principles of biomedical ethics and deontology. Confidently complies with the basic principles of bioethics in relation to medical and nursing staff. Possesses the skills of integrative interactions with medical personnel.	Defense of the FQW (content of work, report, answers to questions from members of the state commission)
GPC-7	Able to present the results of his work orally and in writing in accordance with the norms and rules adopted in the professional community	It presents the results of the work in the form of a written report, taking into account the requirements of bibliographic culture. Prepares and presents a presentation on the topic of work.	Demonstrates the ability to prepare and present the results of work in the form of a written report, taking into account the requirements of bibliographic culture. Able to prepare and present a presentation on the topic of work.	Defense of the FQW (content of work, report, answers to questions from members of the state commission)
PC-6	Ready to conduct and manage research work in the field of pharmacy, participate in the implementation of new techniques in the development and production of medicines	Know the theoretical foundations for the introduction of new methods and techniques in the development, production and circulation of medicines; is able to apply theoretical knowledge about the methods and techniques of techniques in the field of development, production and circulation of medicines in the practice of pharmaceutical organizations; owns methods and techniques in the development, production and circulation of medicines	Demonstrates knowledge of the basics of introducing new methods and techniques in the development, production and circulation of medicines. Demonstrates the ability to use various methods and techniques in the development, production and circulation of medicines.	Defense of the FQW (content of work, report, answers to questions from members of the state commission)
PC-8	Capable of carrying out technological processes in the industrial production and manufacture of medicines	Knows the basics and principles of technological processes used in the industrial production of medicines; knows how to make a given dosage form in the laboratory; possesses the skills of implementation of technological	Demonstrates the ability to manufacture a prescribed dosage form in laboratory / industrial conditions, in full compliance with the conditions of the technological process.	Defense of the FQW (content of work, report, answers to questions from members of the state commission)

processes in the p medicines.	of
----------------------------------	----

Features of the state final certification for persons with disabilities

For students from among the disabled and people with disabilities (persons with disabilities), SFC is carried out taking into account the characteristics of their psychophysical development, their individual capabilities and health status (hereinafter referred to as individual characteristics).

When conducting state final certification, the following general requirements are met:

- conducting state final certification for people with disabilities and people with disabilities in the same classroom together with students who are not disabled, if this does not create difficulties for people with disabilities and people with disabilities and other students when passing the state final certification;

- the presence in the classroom of an assistant (assistants) who provides students with disabilities and persons with disabilities with the necessary technical assistance, taking into account their individual characteristics (take a workplace, move around, read and complete the assignment, communicate with the chairman and members of the state examination committee);

- the use of technical means necessary for students with disabilities and persons with disabilities when passing the state final certification, taking into account their individual characteristics;

- ensuring the possibility of unimpeded access for students with disabilities in the classroom, toilet and other premises, as well as their stay in the specified premises (the presence of ramps, handrails, widened doorways, elevators, in the absence of elevators, the audience should be located on the first floor, the presence of special chairs and other devices).

All local regulations on the conduct of state final certification are brought to the attention of students with disabilities and persons with disabilities through the official website of the university.

At the written request of a student from among the disabled and persons with disabilities, the duration of the student's passing of the state certification test can be increased in relation to the established duration of its passing:

- the duration of the state examination, conducted in writing, - no more than 90 minutes;

- the duration of the preparation of a student for the answer to the state examination, held orally, is no more than 20 minutes;

- the duration of the student's speech during the defense of the final qualifying work - no more than 15 minutes.

Depending on the individual characteristics of students from among the disabled and persons with disabilities, the university ensures the fulfillment of the following requirements during the state certification test:

a) for the visually impaired:

- tasks and other materials for passing the state attestation test are issued in an enlarged font;

- individual uniform illumination of at least 300 lux is provided;

- if necessary, the students are provided with a magnifying device, it is allowed to use the magnifying devices available to the students;

b) for the deaf and hard of hearing, with severe speech impairments:

- the availability of sound-amplifying equipment for collective use is provided, if necessary, students are provided with sound-amplifying equipment for individual use;

- at their request, state certification tests are carried out in writing;

c) for persons with disorders of the musculoskeletal system (severe disorders of motor functions of the upper limbs or the absence of upper limbs):

- written tasks are performed by students on a computer with specialized software or dictated to an assistant;

- at their request, state certification tests are carried out orally.

A student from among the disabled and persons with disabilities, no later than 3 months

before the start of the state final certification, submits a written application to the dean's office of the faculty implementing the educational program on the need to create special conditions for him during state certification tests, indicating his individual characteristics.

The application is accompanied by documents confirming the student's individual characteristics. In the application, the student indicates the need (no need) for the presence of the assistant at the state certification test, the need (no need) to increase the duration of the state certification test in relation to the established duration (for each state certification test).

The procedure for filing and consideration of an appeal, change and (or) cancellation of the results of the SFA by university graduates

To consider appeals based on the results of the state final attestation at PSU, an appeal commission is created, which operates during a calendar year. The rector of the university is approved as the chairman of the appeal committee. The Appeals Commission consists of a chairman and at least 3 commission members. The composition of the appeal commission is formed from the number of persons belonging to the teaching staff of PSU and not being part of the SEC.

According to the results of the state attestation test, the student has the right to submit a written appeal:

- about the violation, in his opinion, of the established procedure of the state attestation test;

- about disagreement with the results of the state certification test.

The appeal is filed personally by the students to the appeal commission no later than the next working day after the announcement of the results of the defense of the FQW.

To consider the appeal, the secretary of the SEC sends to the appeal commission the minutes of the meeting of the state examination commission, the conclusion of the chairman of the state examination commission on the observance of procedural issues during the state certification test, as well as written answers of the student (if any) (for consideration of the appeal for the state examination) and (or) the final qualifying work, feedback and review (reviews) (for consideration of the appeal for the defense of the final qualifying work).

The appeal is considered no later than 2 working days from the date of the appeal at the meeting of the appeal commission. The decision of the appeal commission is communicated to the student who filed the appeal within 3 working days from the date of the meeting of the appeal commission. The fact of familiarization of the student who has filed the appeal with the decision of the appeal commission is certified by the student's signature.

When considering an appeal about a violation of the procedure for conducting a state attestation test, the appeal commission makes one of the following decisions:

- to reject the appeal, if the information contained in it about violations of the procedure for conducting the state final attestation of a student has not been confirmed and (or) did not affect the result of the state attestation test;

- on the satisfaction of the appeal, if the information contained in it about the violations of the procedure for conducting the state final certification of the student was confirmed and influenced the result of the state certification test. In the latter case, the result of the appeal is transferred to the state examination commission no later than the next working day to implement the decision of the appeal commission. The student is given the opportunity to repass the state certification test within the time frame established by the University.

When considering an appeal on disagreement with the results of the state attestation test, the appeal commission makes one of the following decisions:

- on the rejection of the appeal and saving the result of the state certification test;

- on satisfying the appeal and setting another result of the state certification test. The decision of the appeal committee is final and not subject to revision.

Re-conducting the state certification test of the student who filed an appeal is carried out in the presence of the chairman or one of the members of the appeal commission no later than the date of completion of the training. The term for the repeated state certification test is established by the chairman of the State Electricity Commission.

An appeal for a repeated state certification test is not accepted.

REPEAT STATE FINAL CERTIFICATION

Students who have not passed the state attestation test due to failure to appear at the state attestation test for an unjustified reason, due to lack of admission or in connection with receiving an "unsatisfactory" grade, are expelled from the university with the issuance of a certificate of study as having failed to fulfill their obligations for the conscientious mastering of educational program and curriculum implementation.

In this case, the repeated passing of the SFA is possible no earlier than 10 months and no later than five years after the period of the state final certification. The student, at his request, is restored to Perm State National Research University for a period of time not less than that provided for in the calendar training schedule for the state final certification for the corresponding educational program. If it is necessary to defend the final qualifying work, the student is reinstated no later than 6 months before the date of the defense. In case of repeated defense of the FQW, at the request of the student, by the decision of the Academic Council of the Faculty, a different topic of the FQW may be established for him.

Repeated passage of the SFA is possible no more than two times.

ANNEXES

Attachment 1 Sample FQW title page

MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION Federal State Educational Institution of Higher Education «Perm State University» Faculty of Chemistry

Department of Pharmacology and Pharmacy

Final qualifying work on the topic: ANALYSIS AND WAYS TO IMPROVE THE PROCESS OF IMPLEMENTATION OF MEDICINES IN PARACELS, PERM

> <u>Completed:</u> 5th year student, specialty 33.05.01 "Pharmacy" Full Name

Scientific adviser: degree, title

Full Name

signature

The work is admitted to		
protection	 	
Head of the Department	 	
Submission date		
Protection date	 	
Grade	 	

Perm, 20____

Attachment 2 Sample form of the manager's recall for the FQW REVIEW of the head for the final qualifying work of the student

Group	
-	у
	·
Final qualifying work comp General characteristics of th	leted in the amount of pages. he final qualifying work
Notes on the content and de	sign of the work
General conclusions on the	final qualifying work
Assessment of the final qual defense	lifying work and the manager's opinion on admission to
«»	20year.
Scientific adviser	
Full name	Signature

Attachment 3 Sample form for a FQW review

REVIEW		
For the final qualifying work of the student		
Specialty <u>33.05.01 Pharmacy</u>		
Work theme		
Relevance of work		
Scope and content of work	-	
Characteristics of work		
Registration of work		
Practical significance		
Disadvantages		
General conclusion and assessment of the final qualifying work		
Reviewer		

(Full name, academic degree, position, place of work, signature, date)

Attachment 4 Assessment funds funds for the SEC - an example of a state exam ticket

MINISTRY OF SCIENCE AND HIGHER EDUCATION

OF THE RUSSIAN FEDERATION

Federal State Educational Institution of Higher Education «Perm State University" Faculty of Chemistry State qualification exam in the specialty "Pharmacy"

A visitor turned to the pharmacy with a request to release Phenazepam tablets 0.1 mg No. 50. The specialist refused to let go, referring to the legal framework. On the refusal, the visitor made a scandal, promising to complain to the Russian Federal Service for Surveillance on Consumer Rights Protection and Human Wellbeing.

- 1. Is the pharmacist right to refuse his request?
- 2. What normative act justifies its actions?
- 3. On what form, in accordance with this order, should this drug be prescribed?
- 4. Can a pharmacist release a part of the package (without a prescription and with a prescription)?
- 5. What are the actions of a specialist in the event of an incorrectly written prescription?

When advising a patient on the issue of taking phenazepam 0.1 mg tablets, the specialist focuses on the fact that the drug should be taken with caution, provided that the patient's professional activity is associated with a high concentration of attention.

- 1. What are the reasons for such features when taking this drug?
- 2. What are the main side effects from the use of phenazepam and what are the reasons?
- 3. What possible adverse drug interactions should the patient pay attention to?

When dispensing phenazepam 0.1 mg tablets to the patient, according to the prescribed prescription, a specialist advised him about the peculiarities of taking dispersible tablets.

- 1. What is the difference between dispersible tablets and other types of tablets in terms of their production technology?
- 2. What groups of excipients are used in the production of dispersible tablets and what is their purpose?
- 3. By what quality indicators, in accordance with the regulatory documents, are tablets and methods for their determination evaluated?

In the quality control department of pharmaceutical manufacturing enterprises, the pharmacist-analyst analyzed Phenazepam 0.1 mg tablets No. 50 according to the sections of the regulatory document "Authenticity" and "Foreign impurities" by high-performance liquid chromatography.

- 1. What indicator does a specialist use to assess authenticity and what is its physical meaning?
- 2. How did the pharmacist determine (or absence) of impurities? What methods of assessing this indicator exist in the method of high performance liquid chromatography?

The patient, together with a prescription drug, purchased medicinal herbal raw materials from the pharmacy - valerian medicinal rhizome with roots, 20 filter bags.

- 1. Can a patient independently at home prepare a dosage form from medicinal raw materials, and which one?
- 2. What drugs from this type of materials were used by the patient? What other drugs are made from raw materials of Valerian officinalis?
- 3. What other types of raw materials can be offered to the patient, provided that there is no raw material for Valerian officinalis in the pharmacy?