Educational Institution "BELARUSIAN STATE MEDICAL UNIVERSITY"

Approved by
Rector of the Belarusian State
Medical University

Sense Rubnikovich

Registration No. 7-02-02-12-01-19-01-1

Curriculum

Qualification - Pharmacist Degree: Master Training period - 6 years

контрольный экземпляр

3K3EWIII

Specialty 7-07-0912-01 Pharmacy Medical Faculty for International Students Type of training - on-site training

I. ckhedule of the educational process			II. Time ckhedule (in weeks)
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References: — Theoretical training	Practical session	— Vacations	
: — Examination	X — Work experience practical training	ng /// — Final academic assessment	

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1	State Component			5336	3077	460	1696	867	54	995	595	27	810	486	23	955	545	27	796	440	23	520	263	15	385	228	11	330	21	0 9	34	0 19	92	9 2	205 1	18 6	
1.1	Module of Social and Humanitarian Dicкiplines - 1																					•															
1.1.1	History of Belarusian		4	100	F.4	26			20	100	54	3																									UC-7
	Statehood		1	-	_					108	54	3				108	54	3																-			UC-8
1.1.2 1.2	Philosophy		3	108	54	28			26							100	54	3				1															00-0
1.2.1	Linguistic Module Pharmaceutical																																-				
1.2.1	Latin		1,2d	213	126			126		118	72	3	95	54	3																						UC-10
1.2.2	Russian Language		1,2d, 4d,																																		
	as Foreigh Language	3		942	650			650		240	180	6	180	136	5	252	162	7	180	108	5	45	32		45	32	2										UC-3
1.3	Module "Information																																				
	Technologies in Pharmacy"																																				110.4
1.3.1	Biomedical Statistics		2	90	40	12		28					90	40	3																						UC-1, BPC-1
1.3.2	Informatics in		4					48		95	50	3																									UC-2
1.4	Pharmacy Natural скіепсе Module		1	95	52	4		40		93	52	3																									BPC-2
1.4.1	Biology	1		90	40	12	28			90	40	3																									
1.4.2	Biomedical Physics				-	1389		45						F7	2																						
1.4.3	Pharmaceutical	2	1	207	116	26	75	15		112	59	3	95	57	3													-									
	Botany	3	2	230	135	24	111						120	66	3	110	69	3																			
1.5	Chemical Module																																				BPC-2
1.5.1	General and Inorganic Chemistry	2	1	232	138	30	108			112	66	3	120	72	3																						
1.5.2	Physical and Colloid Chemistry	4					111			112	00	3	120	12	3	110	63	3	110	64	3																
1.5.3	Analytical																																				
1.5.4	Chemistry Organic Chemistry	4	3	_	_		185 162									210 165			198	_																	
1.6	Human Physiology	4	3	303	100	24	102									100	00	3	130	100	0																
1.6.1	Module Human Anatomy				- 1																																BPC-3
	and Physiology	2	1	230	133	28	105			120	72	3	110	61	3																						
1.6.2	Biological Chemistry	5	4	205	121	16	105												110	64	3	95	57	3													
1.6.3	Pathologic Physiology	7	6	220			102																		110	61	3	110	0 6	3 3	3						
1.7	Pharmacology and Pharmacotherapy Module																																				
1.7.1	Pharmacology	7	5, 6	410	212	42	170															190	86	6	110	63	3	110	0 6	3 3	3						BPC-4, 5
1.7.2	Pharmacology,	q	8	220	129	30	99																•								11	0 7	70	3 1	110	59 3	EPC-1
	Pharmacotherapy	9	8	220	129	30	99																								11	0 7	70	3 1	110	59 3	

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1.8	Organization and Economics of																																				
1.8.1	Pharmacy Organization and																																				UC-5, 6,
	Economics of																					400	000		400	70	0	440	0.4		400	00	1				BPC-6,7,
1.8.2	Pharmacy Pharmaceutical	6, 8	5, 7	540	306	70	236	5											-			190	88	6	120	72	3	110	84	3	120	62	3			_	EPC-2-5,7 UC-4, BPC
	Merchandizing	9	8	205	119	20	99																								110	60	3	95	59		6,8 EPC-6
2.	Component of Educational				in the second		and a second																														
2.4	Institutions			3895	1984	410	1296	254	24	72	36	2	200	101	6	180	88	6	200	104	6	515	328	15	642	319	17	616	311	18	599	264	18	871	433	27	- (f) - (f)
2.1	Introduction to the Specialty Module	50.03																														144					2/9964
2.1.1	History of Pharmacy		1	72	36	12			24	72	36	2																				7					UC-15
2.1.2	Psychology of			_	33	-				-	-	_																			132						Ü,
1 4	Interpersonal Relationships		2	90	40	22		18					90	40	3																1						UC-4-6, 11, 16
2.2	Communication Module			30	40	22		10					30	40	3				13.22																		11,10
2.2.1	Biopharmaceutical				11000																																10.5.0
	Ethics and Communication	3	2	200	109	20		89					110	61	3	90	48	3																			SC-1
2.2.2	Psychology of Professional																							2													4 AFC- 1104
2 2 3	Communication		9	90	40	10		30														•												90	40	3	SC-1,2
2.2.3	Management of Pharmacy		9	90	46	4	42																											90	46	3	SC-2,3
2.3	Microbiology, Virology,																																				6
66	Immunology	5	4	205	120	16	104												110	64	3	95	56	3													SC-4
2.4	Pharmaceutical Hygiene and Ecology Module	201	6																																		
2.4.1	Pharmaceutical		4	90	40	6	34												90	40	3																SC-5,6
2.4.2	Hygiene Pharmaceutical		7	30	40		04												00	40													1-11				
0.5	Ecology		9	90	40	10	30																											90	40	3	SC-7
2.5 2.5.1	First Aid Module First Aid		7	90	40	6		34																				90	40	3							SC-8
2.5.2	Disaster Medicine		- 0 .																									440	00	2	00	44	2				EPC-5,
2.6	Pharmaceutical		7,8d	200	107	24		83																				110	63	3	90	44	3				SC-5,8,9
	Technology Module																																				
2.6.1	Pharmacy																																				
	Technology of Drugs	6	5	310	168	32	136						dd									190	94	6	120	74	3										SC-10
2.6.2	Pharmaceutical Biotechnology		6		+																				120						,						SC-11
	Industrial Technology of																																				
	Drugs Management and	8	7	335	176	48	128																					170	90	5	165	86	5				SC-11
	Management and Economics of Pharmaceutical																																				
2.0	Enterprises		9	90	46	12	34																											90	46	27.00	SC-12,13 EPC-1,
2.8	Pharmaceutical Care	9	77	110	63	12	51															•												110	63		SC-14,15
2.9	Pharmaceutical Chemistry and Pharmacognosy				0																																
	Module				1.0		1															4.4-	00	0	040	00	0										CC 16 17
	Pharmacognosy Pharmaceutical	6	5	325	180	28	152															115	92			88											SC-16,17
2.9.3	Chemistry Toxicological	6,8	5,7	553	324	56	268															115	86	3	120	86	3	120	78	3	198	198					SC-16,18
	Chemistry	9	8	205	119	20	99																								110	60	3	95	59	3	SC-19

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Nº	units, unit, dickiplines, corse works (projects)	Exams	Credit tests	Total hours	Class hours	Lectures	Laboratory practicals	Skills building sessions	Workshops	Total hours	Class hours	Credits	Total hours	Class hours	Credits	Total hours	Class hours	Credits	Total hours	Class hours	Credits	Fotal hours	Class hours	Credits	Total hours	Class hours	Credits	Total hours	Class hours	Credits	Total hours	Class hours	Credits	Total hours	Class hours	Credits	Competency code
2.10	Drug Development and Standardization Module																																				
2.10.1	Pharmaceutical Development with the Fundamentals of		9	90	59	8	51						25																					90	59	3	SC-20,21
2.10.2	Modern Methods of Analysis and Standardization of Drugs		9	144	80	12	68																•											144	80	4	EPC-7, SC-22,23
2.11	Research Module																Ť.																				UC-1, SC-26
2.11.1	Course work on the discipline "Pharmacognosy"			36																					36		1										
2.11.2	Course work on the discipline "Pharmacy Technology of																								36		1										
2.11.3	Drugs" Course work on the discipline "Pharmacology"			36																					30			36		1							
2.11.4	Course work on the discipline "Pharmaceutical Chemistry"			36																											36		1				
2.11.5	Course work on the discipline "Industrial Technology of																																	000			
2.11.6	Drugs" Course work on the discipline "Organization and Economics of			36																														36		1	1000
2.12	Pharmacy" Elective Module			36																														36		1	
2.12.1	Chromatographic Methods of Analysis		3													90	40	3																			SC-24
2.12.2	Phytotherapy ¹ Additional Courses		7	90	40	16	24																					90	40	3		3.2					SC-25
	Physical Education Additional Courses ¹		/1-4	/202	/202			/202	2	/34	/34		/34	/34		/36	/36		/34	/34		/32	/32		/32	/32											UC-18 UC-9,11, 12, 13,14
2.14	Additional types of training																																				,,
2.14.1	Fundamentals of information		/8д	/72	/50	/26		/24																							172	/50	/2				UC-2
2.14.2	technology ² Philosophy and methodology of	17		/124		/40		124	/32																			/124	172	/2	112	,50	12				UC-1
2.14.3	science ² Foreign language ²	/7 /9		/124	/96			/96	132																			/124	112		/70	/48		/72	/48	/4	UC-3
Amou hours	unt of session training	, 0		9231		-	2992		78	1067	631	29	1010	587	29	1135	633	33	996	544	29	1035	591	30 1	1027	547	28	946	521						551		
hours	unt of session training sper week unt of corse works	6									35			33			33			30			35			32			31			29			32		
Amou	unt of corse works unt of exams unt of credits	26	48								1 8			4			3			3 5			2 5			4 2			2			3			4 6		

IV. Prac	tical sessi	ons		V. Work experince	practical tra	ining		VI. Final academic assessment
Name of practical sessions	Semester	Week	Credits	Name of practical sessions	Semester	Week	Credits	
1. Pharmaceutical	1	1	1	1. Pharmacy Technological Practice	6	2	3	
Propaedeutic Practice				2. Industrial Technological Practice	8	2	3	Integrated state examination in
2. Botanical Practice	2	1	1	3. Pharmacological Practice	10	4	6	pharmacy and (or) defense of the
3. Pharmacognostic Practice	6, 7	2	3	Organizational and Managerial Practice	10	12	18	thesis
4. Medical Practice	7	1	1	2. Analytical Laboratory Practice	10	2	3	

	Name of competence	Module code, discipline code
UC-1	Apply methods of scientific cognition in research, generate and implement innovative ideas	1.3.1, 2.11, 2.14.2
UC-2	Solve professional, scientific and innovative tasks based on the use of information and communication technologies	1.3.2, 2.14.1
UC-3	Carry out communications in a foreign language in an academic, scientific and professional environment for the implementation of research and innovative activities	1.2.2, 2.14.3
UC-4	Provide communications, demonstrate leadership skills, be capable of team organization and development of strategic goals and objectives, be tolerant to social, ethnic, religious, cultural and other differences	1.8.2, 2.1.2
UC-5	Be capable of self-development and improvement in professional activity, develop innovative competence and ability to innovative activity	1.8.1, 2.1.2
UC-6	Take the initiative and adapt to changes in professional activity, be able to predict the conditions for the implementation of professional activity and solve professional tasks in conditions of uncertainty	1.8.1, 2.1.2
UC-7	Have the ability to analyze the processes of state-building in different historical periods, identify the factors and mechanisms of historical changes, determine the socio-political significance of historical events (personalities, artifacts and symbols) for modern Belarusian statehood, perfectly use the established patterns in the process of forming civic identity	1.1.1
UC-8	Possess modern culture of thinking, a humanistic worldview, an analytical, innovative and critical style of cognitive, socio- practical and communicative activity, use the fundamentals of philosophical knowledge in direct professional activity, independently assimilate philosophical knowledge and build a personal worldview position on this basis	1.1.2
UC-9	Have the ability to analyze the processes of state-building in different historical periods, identify the factors and mechanisms of historical changes, determine the socio-political significance of historical events (personalities, artifacts and symbols) for modern Belarusian statehood, perfectly use the established patterns in the process of forming civic identity	1.1.3
UC-10	Use the Latin language as a tool for professional activity	1.2.1
UC-11	Have the ability to develop and implement methods and technologies of self-organization and self-education, design the trajectories of personal professional growth and development, consciously carry out pedagogical work with children in a family environment in different types of activities	2.1.2, 2.13.2
UC-12	Analyze and evaluate the impact of socio-economic factors on the state of public health and the organization of medical and pharmaceutical care in order to develop additional socio-psychological measures to prevent, preserve and promote the health and working capacity of the population	2.13.2
UC-13	Possess the ability to formulate personal ideological principles based on the feat of the Belarusian people and the historical lessons of the Great Patriotic War, preserve and multiply the historical memory of the role of the Soviet Union and its peoples in the Victory over German Nazism, pass to new generations the historical truth and norms of behavior, values and traditions	
UC-14	developed by the Belarusian people during the period of overcoming the tragic events of the Great Patriotic War Have the ability to competently use the fundamentals of legal knowledge in various spheres of life, possess the skills of	2.13.2
UC-15	searching for normative legal acts, analyzing their content and applying them in professional activity Take into account development trends, solve current problems and potential directions in pharmacy for the organization and	2.13.2
UC-16	management of pharmacy organizations and pharmaceutical enterprises Use psychological patterns and technologies in various forms of interpersonal interaction in the implementation of professional	2.1.1
UC-18	Use the means of physical culture and sports to preserve and promote health, prevent diseases	2.13.1
BPC-1	Use basic mathematical and statistical methods for processing data obtained during the development and quality control of medicines	1.3.1
BPC-2	Apply knowledge of the basic physical, chemical and biological laws for quality control of medicines and medicinal plant raw materials	1.4, 1.5
BPC-3	Identify the symptoms and syndromes that require an ambulance call or immediate medical attention or that allow for the use of over-the-counter medications	1.6
BPC-4	Replace the missing drug with analogues, taking into account the dose, dosage form and contraindications to the administration	1.7.1
BPC-5	Provide pharmaceutical advice and counselling of medical workers and the public, including the pharmacological action and adverse reactions of medicines and methods of their correction, specific features of their joint use and interaction, rules of usage, storage and disposal at home	1.7.1
BPC-6	Carry out professional activities, including dispensing and selling medicines, medical devices and other pharmacy products through pharmacies in accordance with the legislation of the Republic of Belarus	1.8.1, 1.8.2
BPC-7	Keep the document flow included in the duties of a specialist in pharmacy organizations	1.8.1
BPC-8	Use in professional activity methods of carrying out commodity expertise of medicines, medical products and other goods of the pharmacy assortment	1.8.2
EPC-1	Choose proper over-the-counter medicines, taking into account the information provided by pharmacy visitors about the symptoms of the disease and the medications used	1.7.2, 2.8
EPC-2	Organize the work of the pharmacy and provide patients with medicines under in-patient conditions	1.8.1
EPC-3	Carry out pharmaceutical inspection and audit of pharmacy organizations and pharmaceutical enterprises	1.8.1
EPC-4 EPC-5	Perform pharmacovigilance functions Plan and organize resource support for pharmacy organizations and pharmaceutical enterprises, including emergency	1.8.1
EPC-6	situations Perform marketing research of the pharmaceutical market, develop the strategy and tactics for promoting products in the	1.8.1, 2.5.2
EPC-7	pharmaceutical market Take measures to ensure the pharmaceutical quality system of medicines and other pharmacy products	1.8.1, 2.10.2
SC-1	Carry out professional activities in accordance with ethical norms and moral principles of pharmaceutical ethics and deontology	2.2.1, 2.2.2
	Develop a team strategy to achieve the goal, carry out negotiations and interaction with employees of other organizations	2.2.2, 2.2.3
SK-2	Organize and control the labor activity of employees of a pharmaceutical organization, show initiative, leadership and	
SK-2 SK-3	responsibility, make managerial decisions	2.2.3
	responsibility, make managerial decisions Use the methods for assessing microbial contamination of medicines, monitoring their sterility and appropriate storage	
SK-3	responsibility, make managerial decisions Use the methods for assessing microbial contamination of medicines, monitoring their sterility and appropriate storage Ensure compliance with sanitary and hygienic standards, labor protection, fire safety, environmental protection, emergency procedures	2.2.3 2.3 2.4.1, 2.5.2

Competency code	Name of competence	Module code, discipline code
SK-7	Collect, neutralize and dispose of medical and pharmaceutical waste, counsel the population on the disposal of medicines	2.4.2
SK-8	Provide first aid in case of medical emergency	2.5.1, 2.5.2
SK-9	Use methods of protection against possible consequences of emergency situations	2.5.2
SK-10	Make medicines at the pharmacy	2.6.1
SK-11	Take part in the industrial production of medicines and biologically active food additives	2.6.2, 2.6.3
SK-12	Organize the work of structural divisions of pharmaceutical enterprises, participate in their modernization	2.7
SK-13	Monitor the quality management system at the pharmaceutical enterprise, draw up a plan of corrective measures	2.7
SK-14	Comply with the concept of rational use of medicines and form a pharmaceutical dossier during pharmaceutical counselling of the population on the use of medicines, medical products and pharmacy assortment goods	2.8
SK-15	Develop skills of a healthy lifestyle and prevention of diseases in the population	2.8
SK-16	Choose and use appropriate methods and technologies when conducting quality control of medicines and medicinal plant raw materials, evaluate the obtained results	2.9.1, 2.9.2
SK-17	Use methods of cultivating medicinal plants, procure medicinal plant raw materials of wild and cultivated medicinal plants	2.9.1
SK-18	Prognosticate the physicochemical properties, quality control methods and pharmacological properties of medicinal substances based on its structure.	2.9.2
SK-19	Use a complex of physicochemical, biological and chemical methods when conducting research of biological objects for the presence of toxic substances	2.9.3
SK-20	Participate in the development of original and generic medicines, the formation of a new drug application for them	2.10.1
SK-21	Identify factors affecting bioavailability, to conduct the analytical stage of bioequivalent studies	2.10.1
SK-22	Carry out all types of work related to the organization and functioning of the quality assurance system of medicines at the pharmacy, pharmacy warehouse, testing laboratory and at a pharmaceutical enterprise	2.10.2
SK-23	Analyze quality risks in industrial production, pharmacy manufacture, storage and sale of medicines, biologically active food additives	2.10.2
SK-24	Use chromatographic analysis methods to perform quality control of pharmaceutical substances, medicinal plant raw materials, medicines and biologically active food additives	2.12.1
SK-25	Choose and use appropriate methods and technologies when conducting quality control of medicines and medicinal plant raw materials, assess the results obtained	2.12.2
SK-26	Carry out search, critical analysis, generalization and systematization of scientific information, setting goals, research objectives and choice of optimal methods to achieve them	2.11

Developed on the basis of the standard Curricilum for the specialty 7-07-0912-01 Pharmacy. Registration № 7-07-09-007/пр.

Abbreviations:

d - differentiated credit tests; UC - universal competence; BPC - basic professional competence; SC - specialized competence; EPC - extended professional competence

First Vice-Rector

Irina Moroz
2023

apply Medical Faculty for International Students

__Oleg Ishutin __ 2023

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It's recommended for approval by the University Council

Protocol № 4 dated 11.04.2023

Head of Education Department

__Natallia Fomchenko

2023

¹ The list of electives are approved by the Order of Higher Educational Institution.

² General educational disciplines "Philosophy and methodology of science", "Foreign language", "Fundamentals of information technology" are studied at the choice of the student