



КИЇВСЬКИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ
KYIV MEDICAL UNIVERSITY
EST.1992

APPROVED

Rector

_____ B. Ivnyev
"__" _____ 20__

Academic Plan of study

Study Program "Pharmacy, Industrial pharmacy"

Level of Higher education	second (master's) level
Degree of Higher education	master
Field of knowledge	22 Healthcare
Specialty	226 Pharmacy, Industrial pharmacy
Qualification	Pharmacist

CONSIDERED AND APPROVED
at a meeting of the Academic Council of the University

Protocol №2 dated 17.10.2018

Kyiv

1st Year of study																							
No:	Educational Components		Number		Semester I								Semester II										
			for academic year		ECTS Credits	Total hours	contact hours				self-directed learning	Form of control			ECTS Credits	Total hours	contact hours				self-directed learning	Form of control	
	Code	Name	ECTS Credits	Total hours			TOTAL	lectures	seminars	practical		exam	differentiated credit	credit			TOTAL	lectures	seminars	practical		exam	differentiated credit
COMPULSORY EDUCATIONAL COMPONENTS (OK)																							
I. Fundamental Training																							
1.	OK3	Foreign Language	3	90	1,5	45	26			26	19			+	1,5	45	24			24	21		+
2.	OK1	Ukrainian Language (professional)*	3	90	3	90	30			30	60			+									
2.1	OK1.1	Ukrainian Language as foreign**	3	90	3	90	30			30	60			+									
3.	OK2	History of Ukraine. History of Ukrainian Culture	3	90	3	90	30	20	10		60			+									
4.	OK10	Latin language	3	90	1,5	45	30			30	15			+	1,5	45	30			30	15		+
5.	OK4	Philosophy	3	90											3	90	40	20	20		50		+
6.	OK8	Biology with the basics of genetics	4	120	4	120	70	20		50	50		+										
7.	OK7	Biophysics with Physical methods of analysis	4,5	135	2,5	75	40	10		30	35			+	2	60	40	10		30	20		+
8.	OK6	Higher Mathematics and Statistics	3,5	105	2	60	40	10		30	20			+	1,5	45	30	10		20	15		+
9.	OK9	Human Anatomy and Physiology	5	150	3	90	50	20		30	40			+	2	60	50	10		40	10		+
10.	OK14	General and inorganic Chemistry	6	180	3	90	50	20		30	40			+	3	90	60	10		50	30	+	
11.	ПЗК1	Physical Education		160		80	14			14	66			+		80	16			16	64		+
Total for fundamental:			38	1300	24	785	380	100	10	270	405				15	435	274	60	20	194	161		
II. Professional Training																							
12.	OK20	Ethics and Deontology in Pharmacy	3	90											3	90	40	10	30		50		+
13.	OK22	Life Safety, Basics of bioethics and biosafety	3	90											3	90	40	24		16	50		+
14.	OK24	Introduction to pharmacy	3	90	3	90	60	20	20	20	30			+									
Total for professional:			9	270	3	90	60	20	20	20	30				6	180	80	34	30	16	100		
OPTIONAL EDUCATIONAL COMPONENTS (BK)																							
I. Fundamental Training																							
15.	BK 1.1	Valeology	5	150	5	150	60	20	40		90			+									
	BK 1.2	Linguistic and regional studies	5	150	5	150	60	20	40		90			+									
	BK 1.3	Professionally Oriented Media Education	5	150	5	150	60	20	40		90			+									
16.	BK 2.1	Career management	4	120											4	120	30	10	20		90		+
	BK 2.2	Sociology of medicine	4	120											4	120	30	10	20		90		+
	BK 2.3	Medical law	4	120											4	120	30	10	20		90		+
17.	BK 3.1	Bioactivity of inorganic compounds	4	120											4	120	30	10	20		90		+
	BK 3.2	Modern problems of molecular biology	4	120											4	120	30	10	20		90		+
	BK 3.3	Bioactivity of organic compounds	4	120											4	120	30	10	20		90		+
Total for fundamental:			13	390	5	150	60	20	40		90				8	240	60	20	40		180		
TOTAL:			60	660	31,5	1025	500	140	70	290	525				28,5	420	140	54	70	16	280		

* For Ukraine citizens

** For International students

2nd Year of study																					
No:	Educational Components		Number		Semester III								Semester IV								
			for academic year		ECTS Credits	Total hours	contact hours				self-directed learning	Form of control			ECTS Credits	Total hours	contact hours			self-directed learning	Form of control
	Code	Name	ECTS Credits	Total hours			TOTAL	lectures	seminars	practical		exam	differentiated credit	credit			TOTAL	lectures	seminars		practical
COMPULSORY EDUCATIONAL COMPONENTS (OK)																					
I. Fundamental Training																					
1.	OK5	Foreign Language (professional)	3	90	3	90	30			30	60		+								
2.	OK18	Information technologies in Pharmacy	5	150	5	150	70	10		60	80		+								
3.	OK12	Pathophysiology	5	150	2	60	42	16		26	18		+	3	90	38	14		24	52	+
4.	OK16	Pharmaceutical Botany	5	150	3	90	50	10		40	40		+	2	60	30			30	30	+
5.	OK11	Microbiology with the basics of immunology	5	150	3	90	50	10		40	40		+	2	60	40	10		30	20	+
6.	OK13	Organic Chemistry	8	240	4	120	76	16		60	44		+	4	120	74	14		60	46	+
7.	OK15	Analytical Chemistry	8	240	4	120	76	16		60	44		+	4	120	74	14		60	46	+
8.	ПЗК1	Physical Education		160		80	16			16	64		+		80	14			14	66	+
Total for fundamental:			39	1330	24	800	410	78		332	390			15	530	270	52		218	260	
II. Professional Training																					
9.	OK29	Physical and Colloid chemistry	2	60										2	60	50	20		30	10	+
10.	OK19	Hygiene in pharmacy and ecology	3	90										3	90	40	20		20	50	+
Total for professional:			5	150										5	150	90	40		50	60	
III. Practical Training																					
11.	OK42	First premedical aid with Introductory medical practice	3	90										3	90	50	10		40	40	+
12.	OK40	Educational practice in pharmaceutical botany	3	90										3	90	30			30	60	+
Total for practical:			6	180										6	180	80	10	0	70	100	
OPTIONAL EDUCATIONAL COMPONENTS (BK)																					
I. Fundamental Training																					
13.	BK 4.1	Pathophysiology of diseases of civilization	4	120	4	120	40	20	20		80		+								
	BK 4.2	Human anatomy with clinical aspect	4	120	4	120	40	20	20		80		+								
	BK 4.3	Theoretical foundations of dosage form technology	4	120	4	120	40	20	20		80		+								
14.	BK 6.1	Fundamentals of consumer behavior in pharmacy	4	120										4	120	30	10	20		90	+
	BK 6.2	Healthcare Entrepreneurship	4	120										4	120	30	10	20		90	+
	BK 6.3	Modern problems of medical physics	4	120										4	120	30	10	20		90	+
Total for fundamental:			8	240	4	120	40	20	20		80			4	120	30	10	20		90	
TOTAL:			58	1900	28	920	450	98	20	332	470			30	980	470	112	20	338	510	

4th Year of study																											
No:	Educational Components		Number		Semester VII										Semester VIII												
			for academic year		ECTS Credits	Total hours	contact hours				self-directed learning	Course work	Form of control			ECTS Credits	Total hours	contact hours			self-directed learning	Course work	Form of control				
	Code	Name	ECTS Credits	Total hours			TOTAL	lectures	seminars	practical			exam	differentiated credit	credit			TOTAL	lectures	seminars			practical	exam	differentiated credit	credit	
COMPULSORY EDUCATIONAL COMPONENTS (OK)																											
II. Professional Training																											
1.	OK28	Pharmaceutical chemistry	4	120	2	60	46	10		36	14				+	2	60	44	10		34	16			+		+
2.	OK31	Clinical Pharmacy and Pharmaceutical care	6	180	3	90	50	10		40	40				+	3	90	50	10		40	40			+		+
3.	OK21	Technology of drugs	6	180	3	90	50	10		40	40				+	3	90	50	10		40	40		+	+		
4.	OK33	Pharmaceutical management and marketing	3	90												3	90	50	10		40	40					+
5.	OK30	Organization and economics in pharmacy	6	180	3	90	50	14		36	40				+	3	90	50	16		34	40		+	+		
6.	OK26	Pharmacotherapy with pharmacokinetics	3	90												3	90	40	10		30	50					+
7.	OK32	Pharmaceutical and Medical commodity research	4	120												4	120	50	20		30	70					+
8.	OK34	Toxicological and Forensic Chemistry	4	120	4	120	90	20		70	30				+												
9.	OK35	Drug toxicology	3	90												3	90	40	10		30	50					+
10.	OK37	Occupational health and labor safety in the industry	3	90	3	90	40	10		30	50				+												+
Total for professional:			42	1260	18	540	326	74		252	214					24	720	374	96		278	346					
III. Practical Training																											
11.	OK41	Educational practice in Pharmacognosy	3	90												3	90	30			30	60					+
Total for practical:			3	90												3	90	30			30	60					+
OPTIONAL EDUCATIONAL COMPONENTS (BK)																											
I. Fundamental Training																											
12.	BK8.1	Nutrition and bromatology	2	60	2	60	40	30		10	20				+												
	BK8.2	Fundamentals of virology	2	60	2	60	40	30		10	20				+												
II. Professional Training																											
13.	BK10.1	Side effects of drugs	2	60	2	60	40	20		20	20				+												
	BK10.2	Immunopharmacology	2	60	2	60	40	20		20	20				+												
	BK10.3	Aspects of age pharmacology	2	60	2	60	40	20		20	20				+												
14.	BK11.1	Social interaction: pharmacist-doctor-patient	2	60	2	60	40	20		20	20				+												
	BK11.2	Career planning	2	60	2	60	40	20		20	20				+												
	BK11.3	Administrative management	2	60	2	60	40	20		20	20				+												
15.	BK13.1	Laboratory diagnostics	2	60	2	60	40	10		30	20				+												
	BK13.2	Logistics in Pharmacy	2	60	2	60	40	10		30	20				+												
16.	BK15.1	Evidence-based medicine	2	60												2	60	40	30		10	20					+
	BK15.2	Intellectual property in the past and future	2	60												2	60	40	30		10	20					+
17.	BK16.1	Practice in clinical pharmacy and pharmaceutical care	2	60												2	60	30			30	30					+
	BK16.2	Practice in drug technology	2	60												2	60	30			30	30					+
18.	BK14.1	Pharmacoeconomics	3	90												3	90	30	6		24	60					+
	BK14.2	Pharmacoeconomic analysis as a tool of making health management decisions	3	90												3	90	30	6		24	60					+
Total for professional:			15	450	8	180	120	60	0	60	60					7	210	100	36	0	64	110					
TOTAL:			60	1800	26	720	446	134	0	312	274	0	0	0	0	34	1020	504	132	0	372	516					

5th Year of study																							
No:	Educational Components		Number		Semester IX										Semester X								
			for academic year		ECTS Credits	Total hours	contact hours			self-directed learning	Course work	Form of control				ECTS Credits	Total hours	contact hours			self-directed learning	Course work	Form of control
	Code	Name	ECTS Credits	Total hours			TOTAL	lectures	seminars			practical	exam	differentiated credit	credit			ECTS Credits	Total hours	TOTAL			lectures
COMPULSORY EDUCATIONAL COMPONENTS (OK)																							
II. Professional Training																							
1.	OK28	Pharmaceutical chemistry	3	90	3	90	50	10		40	40			+									
2.	OK31	Clinical Pharmacy and Pharmaceutical care	3	90	3	90	50	10		40	40			+	+								
3.	OK36	Technology of medical cosmetics	3	90	3	90	40	10		30	50				+								
4.	OK33	Pharmaceutical management and marketing	3	90	3	90	50	10		40	40			+	+								
Total for professional:			12	270	12	360	190	40		150	170												
III. Practical Training																							
5.	OK43	Industrial practice technology of drugs	5	150															150		+		
6.	OK43	Industrial management practice and marketing	5	150															150		+		
7.	OK43	Industrial practice in the organization and economics of pharmacy	6	180															180		+		
8.	OK43	Industrial practice in pharmaceutical chemistry	5	150															150		+		
9.	OK43	Industrial practice in clinical pharmacy and pharmaceutical care	3	90															90		+		
Total for practical:			24	720															720				
Attestation																							
10.		USOE (Stage 2)																					
11.		Practical comprehensive exam/ Qualification work																					
Total for attestation:																							
OPTIONAL EDUCATIONAL COMPONENTS (BK)																							
II. Professional Training																							
12.	BK18.1	Biopharmacy	3	90	3	90	50	10		40	40			+									
	BK18.2	Drug development	3	90	3	90	50	10		40	40			+									
13.	BK21.1	Resource science of medicinal plants	3	90	3	90	50	10		40	40			+									
	BK21.2	Introduction, cultivation and conservation of biodiversity of medicinal plants	3	90	3	90	50	10		40	40			+									
14.	BK22.1	Quality systems in pharmacy	3	90	3	90	50	20		30	40				+								
	BK22.2	Appropriate practices in pharmacy	3	90	3	90	50	20		30	40				+								
15.	BK19.1	Social pharmacy	3	90	3	90	40	10		30	50				+								
	BK19.2	Social function of pharmaceutical activity	3	90	3	90	40	10		30	50				+								
16.	BK20.1	Standardization of drugs	3	90	3	90	50	10		40	40			+									
	BK20.2	Pharmaceutical analysis of drugs	3	90	3	90	50	10		40	40			+									
17.	BK17.1	Pharmaceutical biotechnology	3	90	3	90	50	20		30	40				+								
	BK17.2	Biotechnological processes in the production of drugs	3	90	3	90	50	20		30	40				+								
18.	BK23.1	International marketing in pharmacy	6	180												6	180	96		96	84	+	
	BK23.2	Pharmaceutical care with clinical pharmacy	6	180												6	180	96		96	84	+	
	BK23.3	Quality control of medicines	6	180												6	180	96		96	84	+	
	BK23.4	Medicinal plants and phytotherapy	6	180												6	180	96		96	84	+	
	BK23.5	Chemical and toxicological analysis	6	180												6	180	96		96	84	+	
		Writing a qualifying (master's) thesis	6	180												6	180	96		96	84		
Total for professional:			24	720	18	540	290	80	0	210	250					6	180	96		96	84		
TOTAL:			60	1710	30	900	480	120	0	360	420	0	0	0	0	30	900	96	0	0	96	804	