										PL	Os							
No.	Course No.	Course Name	1.1.	2.1.	2.2.	2.3.	2.4.	3.1.	3.2.	3.3.	3.4.	3.5.	3.6.	4.1.	4.2.	4.3.	4.4.	5.1.
1	1101111	PHARMACEUTICAL ORGANIC CHEMISTRY(1)	X		Х				X					X				
2	1101115	PHARMACEUTICAL ANALYTICAL CHEMISTRY	Х					X	Х					Х				
3	1101116	PHARMACEUTICAL BASIC CHEMISTRY/ PRACTICAL			X			X						Х				
4	1101121	PHARMACEUTICAL CALCULATIONS AND PRINCIPLES OF BIOSTATISTICS	Х		Х													
5	1101131	HUMAN ANATOMY AND HISTOLOGY	Х						X									
6	1101134	PHYSIOLOGY	Х						X									
7	1101210	PHARMACEUTICAL ORGANIC CHEMISTRY(2)	Х					X					X	X				
8	1101212	INSTRUMENTAL ANALIYSIS	Х		Х										X			
9	1101213	INSTRUMENTAL ANALIYSIS PRACTICAL		Х										X				Х
10	1101221	PHARMACEUTICS (1) NEW PLAN	Х					X										Х
11	1101222	PHARMACY PRACTICE (1)/ PRACTICAL						X										Х
12	1101223	PHARMACEUTICAL BIOCHEMISTRY	Х			Х		X	X						X			
13	1101224	PHARMACEUTICS (2) NEW PLAN	Х					Х										Х
14	1101225	PHARMACY PRACTICE (2)/ PRACTICAL			Х								X					Х
15	1101311	PHARMACEUTICAL MEDICINAL CHEMISTRY (1)	X					Х	X							X		

16	1101312	PHARMACEUTICAL MEDICINAL CHEMISRY (2)	X					X	X					Х		
17	1101313	PHARMACEUTICAL MEDICINAL CHEMISRY (2) PRACTICAL							X			X		X		X
18	1101317	PHARMACOGNOSY AND CHEMISTRY OF NATURAL PRODUCTS	X		X							X	X	Х		
19	1101318	PHARMACOGNOSY AND CHEMISTRY OF NATURAL PRODUCTS/ PRACTICAL						X	Х			Х	Х			
20	1101320	DRUG DELIVERY SYSTEMS	X						Х					Х		X
21	1101324	PHARMACEUTICS (3) NEW PLAN	X					X						Х		X
22	1101325	PHARMACY PRACTICE (3)/ PRACTICAL							X		X					X
23	1101331	PHARMACOLOGY(1)	X	X		X						X			X	
24	1101332	IMMUNOLOGY	X									X				
25	1101333	PHARMACEUTICAL MICROBIOLOGY	X			X		X				Х		X		
26	1101334	PHARMACEUTICAL MICROBIOLOGY PRACTICAL						X	X					X		
27	1101335	PHARMACOLOGY(2)	X	X	X	X	X							X	X	
28	1101336	PHARMACOLOGY(2) PRACTICAL						X	X					X	X	
29	1101340	CLINICAL NUTRITION/ PHARMACY	X			X		X					X			
30	1101411	PHARMACEUTICAL MEDICINAL CHEMISRY(3)	X					X			 X	Х				
31	1101413	CLINICAL BIOCHEMISTRY	X			X		X	Х				Х	Х		
32	1101414	CLINICAL BIOCHEMISTRY PRACTICAL		Х				X				Х				

33	1101421	COSMETICS	X							Х	Х							
34	1101431	PHARMACOLOGY(3)	X			X					X						X	
35	1101432	PATHOPHYSIOLOGY	X				Х					X	Х			Х	X	
36	1101433	BIOPHARMACEUTICS AND PHARMACOKINETICS	X	X	Х													
37	1101434	BIOPHARMACEUTICS AND PHARMACOKINETICS/ PRACTICAL			Х			Х										
38	1101435	PUBLIC HEALTH				X	X	X			X	X	X				X	
39	1101440	COMMUNITY PHARMACY AND DRUG INFORMATION	X		Х			Х		X			X	X		X	X	
40	1101441	PHARMACEUTICAL CARE		X			X			X	X	X		X			X	
41	1101442	EVIDENCE BASED PHARMACEUTICAL PRACTICE	Х	X			X	X		X			X	Х			X	
42	1101460	PHARMACY TRAINING (1) NEW PLAN			Х		X			X	X			Х		X	X	
43	1101461	PHARMACY TRAINING (2) NEW PLAN			X		X				X			X			X	
44	1101521	PHARMACOECONOMICS	X						X									
45	1101522	PHARMACEUTICAL LEGISLATION AND ETHICS										X			X		X	
46	1101531	CLINICAL PHARMACY AND THERAPEUTICS(1)	X		X	Х		Х	Х	Х				X				
47	1101532	CLINICAL PHARMACY & THERAPEUTICS(1) PRACTICAL		X	Х	Х	X	X					X			X		
48	1101533	CLINICAL PHARMACY AND THERAPEUTICS(2)	X	X		Х				Х				X				
49	1101534	CLINICAL PHARMACY AND THERAPEUTICS(2) PRACTICAL		X		Х		Х					X		Х			

50	1101536	CLINICAL PHARMACY AND THERAPEUTICS (3)	X	X	Х	X		X		Х				X				
51	1101537	CLINICAL CASES/ PRACTICAL		Х		Х		X									X	
52	1101541	PHARMACEUTICAL BIOTECHNOLOGY	X						X						X			X
53	1101542	PHYTOTHERAPY	X					X								X		X
54	1101543	ADVANCED PHAMACEUTICAL TECHNOLOGY	X						X						X			X
55	1101545	PHARMACEUTICAL MARKETING	×		X							×	X			X		
56	1101546	PHARMACEUTICAL DISPENSING/ PRACTICAL						×	X				X	X				
57	1101552	PHARMACEUTICAL QUALITY AND ASSURANCE	X															X
58	1101553	SPECIAL TOPICS (DEPARTMENT APPROVAL)																
59	1101554	DRUG DESIGN AND DISCOVERY	X		X			X					X	X		X		
60	1101555	CLINICAL TOXICOLOGY	X	X				X			X			X				
61	1101556	INTRODUCTION TO SCIENTIFIC RESEARCH	X											X	X	X		
62	1101557	ULTERNATIVE AND COMPLEMENTARY MEDICINE	X			X							X	X		X		
63	1101561	EXPERIENTIAL PHARMACY TRAINING			X	_	X		_	X				X	X		X	_

Domain	PLOs
1. Foundational Knowledge	1.1. Develop, integrate, and apply knowledge from the foundational sciences (i.e., pharmaceutical, social/behavioral/administrative, and clinical sciences) to evaluate the scientific literature, explain drug action, solve therapeutic problems, and advance population health and patient centered care.
	2.1. Provide patient-centered care as the medication expert (collect and interpret evidence, prioritize, formulate assessments and recommendations, implement, monitor and adjust plans, and document activities).
2. Essentials for	2.2. Manage patient healthcare needs using human, financial, technological, and physical resources to optimize the safety and efficacy of medication use systems.
Practice and Care	2.3. Design prevention, intervention, and educational strategies for individuals and communities to manage chronic disease and improve health and wellness.
	2.4. Describe how population-based care influences patient centered care and influences the development of practice guidelines and evidence-based best practices.
	3.1. Identify problems; explore and prioritize potential strategies; and design, implement, and evaluate a viable solution.
	3.2. Educate all audiences by determining the most effective and enduring ways to impart information and assess understanding.
3. Approach to	3.3. Assure that patients' best interests are represented.
Practice and Care	3.4. Participate and engage actively as a healthcare team member by demonstrating mutual respect, understanding, and values to meet patient care needs.
	3.5. Recognize social determinants of health to diminish disparities and inequities in access to quality care.
	3.6. Communicate effectively verbally and nonverbally when interacting with an individual, group, or organization.

4. Personal and Professional Development	 4.1. Examine and reflect on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth. 4.2. Demonstrate responsibility for creating and achieving shared goals, regardless of position. 4.3. Engage in innovative activities by using creative thinking to envision better ways of accomplishing professional goals.
	4.4. Exhibit behaviors and values that are consistent with the trust given to the profession by patients, other healthcare providers, and society.
5. Pharmaceutical Product Expert	5.1. Carry out compounding procedures to produce an effective and safe medicines, and implement quality control measures and tests.