Summary of the working program of the academic discipline

«Clinical pharmacology»

General Education	nal Program of higher education (specialist's degree programs)
31.05.01 General	Medicine
Department:	General and clinical pharmacology

- **1. The purpose of mastering the discipline** *participation in the formation of relevant competencies***:** UC-1 (IUC-1.2, IUC-1.3), GPC-7 (I GPC -7.1; I GPC -7.2; I GPC -7.3), PC-8 (IPC-8.1; IPC-8.2), PC-10 (IPC-10.1, IPC-10.2)
- 2. Position of the academic discipline in the structure of the General Educational Program (GEP).
 - **2.1.** The discipline refers to the core part of Block 1 of GEP HE

3. Deliverables of mastering the academic discipline and metrics of competence acquisition ${\bf r}$

Mastering the discipline aims at acquiring the following universal (UC) and general

professional (GPC) and professional (PC) competencies

				As a result of	of mastering th	ne discipline,
	Comp	The content of the	Code and name of	the	e students sho	uld:
$N_{\underline{0}}$	etence	competence (or its	the competence			
	code	part)	acquisition metric	know	be able to	possess
						_
1.	UC-1	Able to carry out a critical analysis of problem situations on the basis of a systematic approach to develop a strategy of action	IUC 1.2. Knows how to acquire new knowledge on the basis of analysis, synthesis, etc.; to collect data on complex scientific issues related to the professional field; to search for information and solutions on the basis of action, experimentation and experience IUC 1.3 Has practical experience in the study of problems of professional activities with the use of analysis, synthesis and other methods of intellectual activity; developing action strategies for solving professional problems	● General laws of the pharmacokin etics and pharmacodyn amics of drugs (PK AND PD); ● PK AND PD belonging to certain pharmacological group, pharmacodyn amics and pharmacokin etics of drugs, indications, side effects, contraindications	• to define groups of drugs for the treatment of a certain disease; • to analyze the effect of drugs on the totality of their pharmacolo gical properties and the ability to use drugs for therapeutic treatment of the adult population; to predict and evaluate adverse drug	• skills prescription of a drug for the treatment of various diseases and pathological processes in the adult population
2.	GPC-	IGPC 7.1. Knows	• methods of medical	• gain new	reaction practical	• methods of
	7	methods of medical	treatment; groups of	knowledge	experience:	medical
	l .		, <i>6</i>	1		

treatment, groups drugs used for medical care in the treatment of most common diseases and their mechanism of action. medical indications and contraindications to the appointment; compatibility, possible complications, side

compatibility, possible complications, side effects, adverse reactions, including serious and unexpected; features provide medical care in case of emergency forms

emergency forms IGPC -7.2. Is able to: develop a treatment plan for patients with the most diseases common in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care; prevent eliminate or complications, side effects, undesirable reactions, including unforeseen ones that have occurred as a result of diagnostic or therapeutic manipulations, the use of

medicines.

IGPC **-7.3.** Has practical experience in the development of the treatment plan of patients with the most common diseases in accordance with applicable procedures of medical care, clinical guidelines, the standards of medical care; medical care in emergency patients with the most common diseases, in accordance with applicable procedures of medical care, clinical guidelines, the standards medical of care: selecting and prescribing to patients

drugs used for medical care in the treatment of most common diseases and their mechanism action, medical indications and contraindications the appointment; compatibility, possible complications, side effects, adverse reactions, including serious and unexpected;

• the possibility of reference and information systems and professional databases: modern methods of use of drugs in diseases and conditions of the patient in accordance with the applicable procedures of medical care, clinical recommendations (treatment protocols) on the provision of medical services standards of medical care; the mechanism of action of drugs. indications and contraindications for their use; complications caused by their use.

based analysis, synthesis, etc.; collect data complex scientific problems related to the professional field; search for information and solutions based actions, experiments, and experience; • develop a

treatment plan for patients with the most common diseases accordance with the procedures for providing medical care, clinical recommendat ions. and taking into account the standards of medical care to prevent or eliminate complication s, side effects, undesirable reactions, including unforeseen ones. that have occurred as a result of diagnostic or

therapeutic

manipulation

s, the use of

medications:

• to make a

• developin treatment plan for patients with the most common diseases in accordance with the current medical care procedures, clinical recommend ations. taking into account the standards of medical care; • selecting

- or selecting and prescribing medicines to patients with the most common diseases;
- evaluating the effectivenes s and safety of using medicines in patients with the most common diseases;
- prevention and treatment of complications, side effects, and side effects. actions, adverse reactions, including unforeseen ones that

treatment; groups of drugs used for medical care in the treatment of most common diseases and their mechanism of action, medical indications and contraindicati ons to the appointment; compatibility, possible complications, side effects. adverse reactions, including serious and unexpected; • the

possibility of reference and information systems and professional databases; modern methods of use of drugs in diseases and conditions of the patient in accordance with the applicable procedures of medical care. clinical recommendati ons (treatment protocols) on the provision of medical services standards of medical care; the mechanism of action of drugs,

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	with the most common		treatment	have	indications
	diseases in accordance		plan for the	occurred as	and
	with the applicable		disease and	a result of	contraindicati
	procedures of medical		the patient's	the use of	ons for their
	care, clinical guidelines,		condition,	medicines;	use;
	the standards of medical		taking into	• the use of	complications
	care; evaluation of the		account the	medicines	caused by
	efficacy and safety of		diagnosis,	in the	their use.
	the use of drugs in		age of the	provision of	
	patients with the most		patient, the	medical	
	common diseases;		clinical	care in an	
	prevention and		picture of the	emergency	
	treatment of		disease in	form.	
	complications, side		accordance	101111.	
	effects, adverse		with the		
	reactions, including		current		
	emergency resulting		medical care		
	from diagnostic or		procedures,		
	therapeutic procedures,		clinical		
	the use of drugs; the		recommendat		
	provision of medical		ions		
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	care to patients with		(treatment		
	sudden acute diseases,		protocols		
	conditions, exacerbation		prescribe		
	of chronic diseases		medications		
	without obvious signs of		based on the		
	threatening the life of		diagnosis,		
	the patient in the		age and		
	emergency form; the use		clinical		
	of drugs in the provision		picture of the		
	of medical care in the		disease in		
	emergency form		accordance		
			with the		
			current		
			procedures		
			for providing		
			medical care,		
			clinical		
			recommendat		
			ions		
			(treatment		
			protocols) for		
			providing		
			medical care		
			based on the		
			standards of		
			medical care;		
			evaluate the		
			effectiveness		
			and safety of		
			the use of		
			medicines.		
3. PC-8	Able to develop a plan	IPC-8.1. Knows:	• methods of	• gain now	• methods of
]. 10-0	of treatment for the	modern methods of		• gain new knowledge	
	disease or condition and	using medicines for	drug		drug
	to prescribe	diseases and	treatment;		treatment;
	medications, medical	conditions in the	groups of drugs used to	analysis,	groups of
1 1	medications, medicai	Conditions in the	drugs used to	synthesis,	drugs used to

products, health food and nonpharmacological treatment according to diagnosis, age and clinical presentation in accordance with the applicable procedures of medical care, clinical recommendations (treatment protocols) on the provision of medical assistance, taking into account standards to assess the effectiveness and safety of the use of medicines, medical devices, therapeutic nutrition and other methods of treatment

patient in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards medical care; mechanism of action of medicinal products, medical indications and contraindications to their use; complications caused by their use

IPC-8.2. Can: make a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, clinical picture of the disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on medical care, taking into account the standards of medical care; prescribe medications, taking into account the diagnosis. age and clinical picture of the disease accordance with current procedures for provision of medical clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical evaluate care: effectiveness and safety of the use of medicines.

provide medical care in the treatment of the most common diseases: the mechanism of their action. medical indications and contraindicati ons to the appointment; compatibility possible complication side effects. undesirable reactions, including serious and unforeseen ones; • the

capabilities of reference and information systems and professional databases; modern methods use of medicinal products for diseases and conditions of the patient in accordance with the current procedures for providing medical care, clinical recommendat ions (treatment protocols) on the provision of medical care, taking into account

etc.; collect provide medical data on complex in scientific treatment problems the most related to common the diseases: professional mechanism of field; search their action. for medical information indications and and solutions contraindicati based on ons to actions, appointment; experiments compatibility, possible and experience; complications, side effects. • develop a undesirable treatment reactions, plan for including patients serious with the unforeseen most

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• the capabilities of reference and information systems and professional databases: modern methods use of medicinal products for diseases and conditions of the patient in accordance with the current procedures for providing medical care, clinical recommendati ons (treatment protocols) on the provision of medical care, taking into account the standards of medical care: the mechanism of

		the standards	manipulatio	action of
		of medical	ns, the use	medicinal
		care; the	of	products,
		mechanism	medications	indications
		of action of	;	and
		medicinal	• to make a	contraindicati
		products,	treatment	ons to their
		indications	plan for the	use;
		and	disease and	complications
		contraindicati	the patient's	caused by
		ons to their	condition,	their use.
		use;	taking into	
		complication	account the	
		s caused by	diagnosis,	
		their use.	age of the	
			patient, the	
			clinical	
			picture of	
			the disease	
			in	
			accordance	
			with the	
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			procedures,	
			clinical	
			recommend	
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			(treatment	
			protocols	
			prescribe	
			medications	
			based on	
			the	
			diagnosis,	
			age and	
			clinical	
			picture of	
			the disease	
			in	
			accordance with the	
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			procedures for	
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			care,	
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			recommend	
			ations	
			(treatment	
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					care based	
					on the	
					standards of	
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					care;	
					evaluate the	
					effectivenes	
					s and safety	
					of the use	
					of	
					medicines.	
4.	PC-10	able to organize	IPC-10. Knows:	• methods of	• gain new	• practical
	1010	personalized treatment	modern methods of	drug	knowledge	experience:
		of patients, including	using medicines for	treatment;	based on	• developing
		pregnant women,	diseases and	groups of	analysis,	
		elderly and senile	conditions of the		-	a treatment
		patients, and evaluate	patient in accordance	drugs used to	synthesis,	plan for
		the effectiveness and	with the current	provide	etc.; collect	patients with
		safety	procedures for	medical care	data on	the most
		<u>saicty</u>	•	in the	complex	common
			1	treatment of	scientific	diseases in
			care, clinical	the most	problems	accordance
			recommendations (treatment protocols)	common	related to	with the
			(treatment protocols)	diseases; the	the	current
			on the provision of	mechanism	professional	medical care
			medical care, taking	of their	field; search	procedures,
			into account the	action,	for	clinical
			standards of medical	medical	information	recommendati
			care; the mechanism of	indications	and	ons, taking
			action of medicines,	and	solutions	into account
			medical indications	contraindicati	based on	the standards
			and contraindications	ons to the	actions,	of medical
			to their use;	appointment;	experiments	care;
			complications caused	compatibility	, and	• selecting
			by their use.	, possible	experience;	and
			IPC-10.2. Is able to:	complication	• develop a	prescribing
			prescribe medications	s, side	treatment	medicines to
			based on the diagnosis,	effects,	plan for	patients with
			age and clinical picture	undesirable	patients	the most
			of the disease in	reactions,	with the	common
			accordance with the	including	most	diseases;
			current procedures for	serious and	common	
1			providing medical	unforeseen	diseases in	• evaluating
			care, clinical	ones;	accordance	the
			recommendations	• the	with the	effectiveness
			(treatment protocols)	capabilities		and safety of
			for providing medical	of reference	procedures for	using
			care, taking into			medicines in
			account the standards	and	providing	patients with
1			of medical care;	information	medical	the most
			evaluate the	systems and	care,	common
			effectiveness and	professional	clinical	diseases;
			safety of the use of	databases;	recommend	prevention
			medicines.	modern	ations, and	and treatment
			medicines.	methods use	taking into	of
				of medicinal	account the	complications,
				products for	standards of	side effects,
				diseases and	medical	and side
				conditions of	care to	Side Side

the r	patient in	prevent or	effects.
		eliminate	actions,
with	th the	complicatio	adverse
curre		ns, side	reactions,
		effects,	including
	1	undesirable	unforeseen
		reactions,	ones that have
		including	occurred as a
		unforeseen	result of the
ions		ones, that	use of
		have	medicines;
	,	occurred as	• the use of
		a result of	medicines in
		diagnostic	the provision
	,	or	of medical
		therapeutic	care in an
		manipulatio	emergency
		ns, the use	form.
	,	of medications	
		;	
		• to make a	
		treatment	
and		plan for the disease and	
		the patient's condition,	
use;		taking into	
		account the	
		diagnosis,	
		age of the	
		patient, the	
		clinical	
		picture of	
		the disease	
		in	
		accordance	
		with the	
		current	
		medical	
		care	
		procedures,	
		clinical	
		recommend	
		ations	
		(treatment	
		protocols)	
		on issues	
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		the	
		provision of	
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		diagnosis,
		age, and
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		accordance
		with the
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		medical
		care,
		clinical
		recommend
		ations
		(treatment
		protocols)
		for
		providing medical
		care, taking into account
		the
		standards of
		medical
		care;
		evaluate the
		effectivenes
		s and safety
		of drug use.

4. Volume of the academic discipline and types of academic work Total labor intensity of the discipline is _3___CU (__108_AH)

Type of educational work	Labor intensity		Labor intensity (AH) in
	volume in	volume in	semesters
	credit units	academic	12 semester
	(CU)	hours (AH)	
Classroom work, including	1,83	66	66
Lectures (L)	0,39	14	14
Laboratory practicum (LP)*	Not provided	l	
Practicals (P)	1,44	52	52
Seminars (S)	Not provided	l	
Student's individual work (SIW)	1,17	42	42
Mid-term assessment			
credit	In the last cla	ass structure	
TOTAL LABOR INTENSITY	3	108	108

5. Sections of the academic discipline and competencies that are formed

	5. Sections of the academic discipline and cor	inpetencies that are formed
№	Competence code	Section name of the discipline
1.	UC-1 (IUC-1.2, IUC-1.3), GPC-7 (I GPC -7.1; I GPC -7.2; I GPC -7.3),	General questions of clinical pharmacology
1.	PC-8 (IPC-8.1; IPC-8.2), PC-10 (IPC-10.1, IPC-10.2)	
	UC-1 (IUC-1.2, IUC-1.3),	Clinical pharmacology of antimicrobial drugs
2.	GPC-7 (I GPC -7.1; I GPC -7.2; I GPC -7.3),	
2.	PC-8 (IPC-8.1; IPC-8.2),	
	PC-10 (IPC-10.1, IPC-10.2)	
	UC-1 (IUC-1.2, IUC-1.3),	Clinical pharmacology of antiviral and antifungal
3.	GPC-7 (I GPC -7.1; I GPC -7.2; I GPC -7.3),	drugs
٥.	PC-8 (IPC-8.1; IPC-8.2),	
	PC-10 (IPC-10.1, IPC-10.2)	
	UC-1 (IUC-1.2, IUC-1.3),	Clinical pharmacology of drugs used in diseases of
4.	GPC-7 (I GPC -7.1; I GPC -7.2; I GPC -7.3),	the respiratory tract
	PC-8 (IPC-8.1; IPC-8.2),	
	PC-10 (IPC-10.1, IPC-10.2)	
	UC-1 (IUC-1.2, IUC-1.3),	Clinical pharmacology of anti-inflammatory drugs
5.	GPC-7 (I GPC -7.1; I GPC -7.2; I GPC -7.3),	
	PC-8 (IPC-8.1; IPC-8.2),	
	PC-10 (IPC-10.1, IPC-10.2)	
	UC-1 (IUC-1.2, IUC-1.3),	Clinical pharmacology of drugs used in diseases of
6.	GPC-7 (I GPC -7.1; I GPC -7.2; I GPC -7.3),	the digestive tract
	PC-8 (IPC-8.1; IPC-8.2),	
	PC-10 (IPC-10.1, IPC-10.2)	Clinia la la constanta de la constanta di co
	UC-1 (IUC-1.2, IUC-1.3), GPC-7 (I GPC -7.1; I GPC -7.2; I GPC -7.3),	Clinical pharmacology of drugs used in diseases of the cardiovascular system
7.	PC-8 (IPC-8.1; IPC-8.2),	the cardiovascular system
	PC-10 (IPC-10.1, IPC-10.2)	
	UC-1 (IUC-1.2, IUC-1.3),	Clinical pharmacology of drugs that affect the
	GPC-7 (I GPC -7.1; I GPC -7.2; I GPC -7.3),	hemostatic system
8.	PC-8 (IPC-8.1; IPC-8.2),	nemostate system
	PC-10 (IPC-10.1, IPC-10.2)	
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