

Course Outcomes Doctor of Pharmacy

Department	ACP	Year	I	Course Code	PD101T	Course ID	C101		
Course	Гitle		Hum	an Anatomy	And Phys	iology			
Course Outc	ome No.	Course Outcome Statements							
C101	1	Explain general terminology, cell structure, function; interrelationships among molecular, cellular, tissue and organ							
C101.	.1		nsnips an n each syst	_	ular, cellul	ar, ussue a	ina organ		
C101.	2				d vessels of the hematopoietic, stem, system and their functions.				
C101.	.3	Describe the anatomy and physiology of Respiratory, D Urinary systems							
C101.	4	Describe the anatomy and physiology of Endocrine Reproductive systems							
C101.	.5	Describe interlinked mechanisms of the nervous system (cer peripheral & autonomic), sense organs and skeletal system							
Department	ACP	Year I Course Code PD102T Course ID C102							
Course 7					aceutics				
Course Outc	ome No.			urse Outco					
C102.	.1			s about pro nd biphasic		powders, m	onophasic		
C102.	2.	-				on adult dose			
						in prescripti			
C102.	.3	overcome.							
C102.	4			of preparation a		icals such as	s infusion,		
C102						res and prep	paration of		
C102.	.5	surgical ca	tguts and s	terilization n	nethods				
Department	ACP	Year	I	Course Code	PD103	Course ID	C103		
Course]	Medicinal B	Biochemistr	y			
Course Outc	ome No.			urse Outco					
C103.	1	-	ochemical e of Isoenzy		atalytic act	ivity of enz	ymes, and		
C103.	2		the biochen metabolis		ways of car	bohydrate n	netabolism		
C103.	.3				nolecular in	metabolic d	isorders.		
C103.		Explain th	e genetic		of mamm	alian genom			
	_					d water b	alance in		
C103.	.5	biological				T			
Department	ACP	Year	I	Course Code	PD104T	Course ID	C104		



Course 7	Fitle		Pharm	naceutical O	rganic Che	emistry		
Course Outco	ome No.			urse Outco	_	•		
C104.	1	Explain the acid and ba		and chemic	cal propertion	es, theories	related to	
C104.	2	Explain IU	PAC name	of simple or	rganic comp	ounds.		
C104.	3		ne theories	s, reaction,			related to	
C104.	4	Explain th		ion method	s, purity to	esting of m	nedicinally	
C104.	5	-	ne principle		in the assa	assay of some important		
Department	ACP	Year	Year I Course Code PD105T Course ID C10:					
Course	Γitle		Pharma	aceutical In	organic Ch	emistry		
Course Outco	ome No.	Course Outcome Statements						
C105.	1	Describe impurities, types, sources and the limit tests for certa impurities as per the Indian Pharmacopoeia.						
C105.	2		Interpret the volumetric analysis and gravimetric analysis of inorganic Compounds.					
C105.	3	uses of In	norganic c s, antimicr	of preparation ompounds sobials, dent and miscellar	such as Gl al products	T agents, , medicina	electrolyte	
C105.	4	Summaries application		pharmaceut	icals, its	measurem	ents and	
C105.	5	Compare, instrument	contrast an al, persona ly safety p	d minimize I and metho recautions ar	dological e	rrors in the	laboratory	
Department	ACP	Year	I	Course Code	PD106P	Course ID	C106	
Course	Γitle		Human A	natomy And	l Physiolog	y Practical		
Course Outco				urse Outco		•		
C106.	1	Describe t tissue.	he distingu	ishing featu	ires of each	of the fou	r types of	
C106.	2	Locate and	l identify ar	natomical str	uctures.			
C106.	3	Demonstra observation	te compe	etency in yzing data	blood pa	arameters-	recording	
Department	ACP	Year	Ι	Course Code	PD107P	Course ID	C107	
Course	Γitle		I	Pharmaceut	ics Practica	al		
Course Outco	ome No.		Co	urse Outco	me Stateme	ents		
C107.	1	Formulate suppositor	-	sic, biphasic	liquid dosaş	ge forms, po	wders and	
C107.	2			s dosage for	ms such as	ointments c	reams and	



		gels.					
C107.	.3	Analyse th	e technique	es used in the	e pharmaceu	ıtical formul	ations.
C107.	1	Calculate	the workin	g formula v	vith referen	ce to officia	al formula
Clut	• •	given in di	fferent pha	rmacopoeia			
Department	ACP	Year	I	Course Code	PD108P	Course ID	C108
Course	Γitle		Medi	icinal Bioch	emistry Pra	ectical	
Course Outc	ome No.			ourse Outco			
C108.	.1	and Impor	tance of Isc		•	•	•
C108.	.2	Describe metabolic process of biomolecules in metabolic disord					
C108.	.3	Explain the genetic organization of mammalian genome, prosynthesis, replication, mutation, repair mechanism					
Department	ACP	Year I Course Code PD109P Course ID C10					
Course 7		Pharmaceutical Organic Chemistry Practical					
Course Outc				ourse Outco		ents	
C109.	.1			natic compo			
C109.	.2			c compour	ids such	as phenols.	, amides,
				s and so on.	1 1	.1	1 1
C109.	.3			stereo mode	is such as	methane, et	thane, and
		ethylene ai	Explain the use of stereo models such as methane, ethane, a ethylene and so on.				
		Vear I Course PD110P Course C1					
Department	ACP		I	Code		ID	C110
Course	Γitle		I harmaceu	Code tical Inorga	nic Chemis	ID try Practica	
_	Γitle	P	I harmaceut Co	Code tical Inorga ourse Outco	nic Chemis me Stateme	ID try Practica ents	al
Course	Γitle come No.	P	I harmaceut Co the volur	Code tical Inorga ourse Outcometric analy	nic Chemis me Stateme	ID try Practica ents	al
Course Outc	Fitle come No.	Carry out inorganic Conference of Perform the iron, arseni	harmaceur Co the volur Compounds e limit test c, lead	Code tical Inorga ourse Outcometric analy	nic Chemis me Statemers and gradient impurities 1	try Practica ents avimetric arike chloride	nalysis of
Course Outc	Title come No.	Carry out inorganic of Perform the iron, arsening Pharmacop Explain the uses of Incelectrolyte gases and	harmaceur Co the volur Compounds e limit test c, lead coeia. e method organic com replenishe miscellane	code tical Inorga ourse Outcometric analysis. t for certain and heavy of preparation pounds such production and compounds such production compounds compound	nic Chemis me Stateme sis and gra impurities I metals on, assay, so as acidifier bials, denta	try Practica ents avimetric as ike chloride as per the torage conders, antacids, al products,	nalysis of , sulphate, ne Indian itions and cathartics, medicinal
Course Outco	Title come No. 1 2	Carry out inorganic of Perform the iron, arsening Pharmacon Explain the uses of Incelectrolyte gases and antidotes and to app. Precaution	the volume Compounds the limit test compounds to be method organic communication replenished and Radiopand minimal, personally safety sand pract	Code tical Inorga ourse Outco metric analys t for certain and heavy of preparation pounds such er, antimicro ous compounds wharmaceutic mize the outline and metholice chemical	mic Chemis me Stateme rsis and gra impurities I metals on, assay, so as acidifier obials, denta ands like eals. different ty dological en	try Practica ents avimetric arike chloride as per the torage conders, antacids, all products, expectorant, expectorant, expectorant in the me laboratory	nalysis of , sulphate, e Indian itions and cathartics, medicinal sedative, rrors like laboratory
Course Outco	Title come No1 .2 .3	Carry out inorganic of Perform the iron, arsening Pharmacon Explain the uses of Incelectrolyte gases and antidotes and to app. Precaution	the volume Compounds the limit test compounds to be limit test compounds the volume limit test compounds to be limit test compounds to be limit to	code tical Inorga ourse Outcometric analys t for certain and heavy of preparation pounds such er, antimicro ous compounds and mize the old and method ice chemical metric analy	mic Chemis me Stateme rsis and gra impurities I metals on, assay, so as acidifier obials, denta ands like eals. different ty dological en	try Practica ents avimetric arike chloride as per the torage conders, antacids, all products, expectorant, expectorant, expectorant in the me laboratory	nalysis of , sulphate, e Indian itions and cathartics, medicinal sedative, rrors like laboratory
Course Outco	Title come No1 .2 .3	Carry out inorganic of Perform the iron, arsening Pharmacop Explain the uses of Incelectrolyte gases and antidotes and antidotes and to appear out instrument and an appear out instrument and an appear out instrument and an appear out instrument and	the volume Compounds the limit test compounds to be limit test compounds the volume limit test compounds to be limit test compounds to be limit to	code tical Inorga ourse Outcometric analys t for certain and heavy of preparation pounds such er, antimicro ous compounds and mize the old and method ice chemical metric analy	mic Chemis me Stateme rsis and gra impurities I metals on, assay, so as acidifier obials, denta ands like eals. different ty dological en	try Practica ents avimetric arike chloride as per the torage conders, antacids, all products, expectorant, expectorant, expectorant in the me laboratory	nalysis of , sulphate, e Indian itions and cathartics, medicinal sedative, rrors like laboratory



Course Outc	ome No.	Course Outcome Statements						
C201.	1	Describe the cellular morphology and pathologic changes of cells						
C201	2					ry mediators		
C201.	2	effects, me	effects, mechanism of cell injury & inflammation					
C201	2					d Nutrition	deficiency	
C201.	3	disorders a	nd their pa	thophysiolog	gy .			
C201	1	Describe pathophysiology of the cardiac, respirator						
C201.	4	gastrointestinal, renal, neuronal and infectious diseases						
C201.	5	To understand the biological effects of radiation						
Department	ACP	Year II Course Code PD202T Course ID C202						
Course 7	<u> </u>	Pharmaceutical Microbiology						
Course Outc	ome No.							
C202.		Course Outcome Statements Identify microorganisms like bacteria, basis of their morpholog and biochemical test. Isolate and cultivate bacteria and fungi i laboratory scale Use appropriate methods of sterilization, preservation and sterilization.						
C202.	2		n for pharm			, 1		
C202.	3	Describe d componen significance	efense mects, antige te of toxoid	hanism of th n antibody s and immu	y reaction nization pro	_	l toxins,	
C202.	4	Western Peripheral antibiotics	Blot, sout smear w for sensit	hern Blot, vith advanc ivity toward	PCR, Wi e tools of ds microorg	ELISA, Sch dal, QBC, f immunologanism and nycin, Vitam	Mantaux ogy. Test Illustrates	
C202.	5		Tuberculos Sonorrhoea	is, Malaria, and HIV an	Cholera,	obial disea Hepatitis, N ment with m	Meningitis,	
Department	ACP	Year	II	Course Code	PD203	Course ID	C203	
Course 7	Title		Pharmaco	gnosy And	Phytophari	maceuticals		
Course Outc	ome No.		Co	urse Outco	me Stateme	ents		
C203.	1	drugs and inclusions	describe	the various	cell wall	nacognosy, constituents	and cell	
C203.	2	and contar	nination of	crude drug		tification, ac		
C203.		Conservati	on of Medi	cinal Plants	<u> </u>	cessing, Sto	orage and	
C203.	4			ural pesticid				
C203.		related pro	ducts	_	T	surgical dre		
Department	ACP	Year	II	Course	PD204T	Course	C204	



		Code ID					
Course T	Title Title				cology I		
Course Outc			Co	urse Outco		ents	
C204.			drugs ir	n suitable pharmacod	dosage for		basic of
C204.	2	-	developme	nt of drug		clinical and	d clinical
C204.	3	Describe the pharmacological action, adverse effects, dr interaction, and therapeutic use of various drugs acting autonomic nervous system, central nervous system, cardiovascu system, urinary system					acting on
C204.	4	Describe the pharmacological action, adverse effects, d interaction, and therapeutic use of various drugs acting endocrine system and respiratory system.					
C204.	5	Describe the synthesis, storage and pharmacological actions Autacoids					
Department	ACP	Year	II	Course Code	PD205T	Course ID	C205
Course T	Γitle			Community	y Pharmacy	7	
Course Outc	ome No.		Co	urse Outco	me Stateme	ents	
C205.	1		heir roles & healthcare	k responsibi	lities as a c	community p	pharmacist
C205.	2		he business nity pharma	and professicies	sional pract	ice manager	nent skills
C205.	3			ept of Pharm n adherence	naceutical ca	are, patient o	counseling
C205.	4			r conducting ommunicabl			
C205.	5	pharmacist		et essential al drug use sts			
Department	ACP	Year	II	Course Code	PD206T	Course ID	C206
Course 7	<u> Fitle</u>]	Pharmacoth	erapeutics	I	
Course Outc	ome No.		Co	urse Outco	me Stateme	ents	
C206.	1		the diagnon the curricu	osis and m ulum	anagement	of various	s diseases
C206.	2			ization of the drug therap			t -specific
C206.	3	manageme	nt includi	vledge of ng pharma ient education	-		herapeutic macologic
C206.	4			of pharmacis		drug use	
C206.		Describe t	he role the	e of pharma s, pregnancy	acist in pres		delines in
Department	ACP	Year	II	Course	PD207P	Course	C207



		Code ID					
Course 7	Fitle			ceutical Mic			
Course Outc	ome No.			urse Outco			
C207.	1	Identify mand bioche		sms like bac	cteria based	on their m	orphology
C207.	2	Isolate and	cultivate b	acteria and f	fungi in labo	oratory scale	
C207.	3	Use appropriate methods to obtain sterilization, preservatio and disinfection for pharmaceuticals					
C207.	4	Describe defense mechanism of the body, types of immunities and their components, antigen antibody reactions, bacterial toxins significance of toxoids and immunization programs.					
C207.	5	Western	Blot, sout	cal diagnost hern Blot, advance too	PCR, Wi	dal, QBC,	
C207.	6	Peripheral smear with advance tools of immunology Test antibiotics for sensitivity towards microorganism an Illustrates Microbiological assays of Penicillin, Streptomycir Vitamin B2 and, B12.					
C207.	7	Recognize signs and symptoms of microbial diseases like Typho Tuberculosis, Malaria, Cholera, Hepatitis, Meningitis, Syphil Gonorrhoea and, HIV and their treatment with measures prevention					
Department	ACP	Year	II	Course Code	PD208P	Course ID	C208
Course 7		Phar	macognos	y And Phyto	opharmace	uticals Prac	etical
Course Outc	ome No.			urse Outco			
C208.	1			cell wall con			
C208.	2	drugs		opic and m			
C208.	3		llterant by ts from crud	performing de drugs	the identif	ication test	for phyto-
C208.	4	Estimate th	ne active pr	inciples and	detect adult	teration	
Department	ACP	Year	II	Course Code	PD209P	Course ID	C209
Course 7	Fitle			macotherap			
Course Outc	ome No.		Co	urse Outco	me Stateme	ents	
C209.	1	patients, he	ealth care p	lity to effe professionals dical record	and other s	ources of da	ata such as
C209.	2	Develop at the pathop	n ability to hysiology a	apply their and managen	knowledge nent of disea	and unders ases to patie	tanding of nt cases
C209.	3	and manag	gement in a	other labor range of clir	nical scenari	los	
C209.	4		ogical and	to set desi non-pharma	acological t	herapies, us	



C209.	.5	patient sp	ecific ma	egimens, a	nd appropria	•			
		monitoring	g and assess	sing response	e to therapy				
Department	ACP	Year	Ш	Course Code	PD301T	Course ID	C301		
Course 7	Γitle	Pharmacology II							
Course Outc	ome No.		Course Outcome Statements						
C301.	.1	Describe the therapeutic profile for haemopoeitic diseases, and							
		drugs used in therapy							
C301.	.2	Describe the biochemical process including inhibition of cell synthesis in bacteria and fungi, membrane synthesis, synthesis proteins, nucleic acid, mode of action and physiological resport diuretic and anti-diuretic agents.							
C301.	.3	Explain about the immunology and mode of drugs for immunolog diseases							
C301.	.4	Explain the significance and application of toxicological studies							
C301.	.5	Describe the capabilities of cell organization, DNA replication transcription, protein synthesis, DNA recombination as well gene structure, function and regulation							
Department	ACP	Year	Ш	Course Code	PD302T	Course ID	C302		
Course 7	Γitle		I	Pharmaceut	ical Analys	is			
Course Ou	tcome		Co	urse Outco	me Stateme	ents			
C302.	.1			narmaceutica	•				
C302.	.2			e and applica	ations of var	rious chroma	atographic		
	, <u>-</u>	techniques							
C302.	.3	_		, instrument	ation and a	pplications	of various		
		spectrosco			arm a arazim	natria alaatr	rachamiaal		
C302.	.4			cation of th allography ar	_				
				of QC& QA			-		
C302.	.5	_	_	cical product		ouches to mi	annum the		
Department	ACP	Year	III	Course Code	PD303T	Course ID	C303		
Course			I	Pharmacoth	eraneutics				
Course Outo				urse Outco					
Course oute	01110 1 (0)	Demonstra		lity to effe			tion from		
C201	1			professionals					
C301.	.1			edical record					
				apply their					
C301.	2		ophysiolog		nanagement		eases of		
C301.	.4			ders, derma	tology, Can	cer, Renal f	ailure and		
		Infectious							
C301.	.3			l other labor			ssessment		
				manage of all		0.0			
C301.	1			range of clir to set desir			identify		



		-	pharmacological and non-pharmacological therapies, usual doses dosage forms, common drug related problems, monitoring					
		_		me for thera	-	,	8	
		Identify an	d prioritize	therapeutic	problems a	nd appropria	tely select	
C301.	5			nagement r	_	nd requirer	ments for	
		monitoring	and assess	sing response	e to therapy			
Department	ACP	Year	III	Course Code	PD304T	Course ID	C304	
Course 7	Fitle		Pha	rmaceutical	l Jurisprud	ence		
Course Ou	tcome		Co	urse Outco	me Stateme	ents		
C303.	1	Explain various Acts and Rules related to the pharmacy profin India Describe manufacturing of alcoholic preparation in bonde						
C303.	2	Describe manufacturing of alcoholic preparation in bonded non-bonded laboratory.					onded and	
C303.	3	Explain prohibited and exempted advertisement and vario provisions of narcotic drugs and psychotropic substances						
C303.	4	Describe the Moral responsibilities of pharmacists towards socie in Relation to his profession, medical profession, job and trade					trade	
C303.	5	Understand pharmaceu	-	ocedures f	or pricing		enting of	
Department	ACP	Year	III	Course Code	PD305T	Course ID	C305	
Course 7				Medicinal	•			
Course Outc	ome No.			urse Outco				
G20.5	_	Describe	the basic				such as	
C305.	1			perties, CA			equations	
				sis and Free- cal classific		•	ah ami atm	
C305.	2			action, uses,			•	
C303.	4			seful drugs.	, side circei	s and brand	names of	
		Reproduce		nthetic pr	ocedures.	calculations	s, safety	
		-	•	methyl-7-hy			•	
C305.	3	_		xazole, pher	-			
				e, fluoresce	•		d 2, 3-	
		Explain the	hacic prin	diphenylquinoxaline.				
C305.	_	Explain the basic principle and assay of aspirin tablets, paracetamed drug, ibuprofen tablets, isonicotinic acid tablets, ascorbic acid						
	4	drug, ibup	rofen tabl	ets, isonico	tinic acid	tablets, asco	orbic acid	
	4	drug, ibup tablets, chl	orofen tabl orocresol,	ets, isonico metronidazo	tinic acid t le tablets an	tablets, asco d dapsone ta	orbic acid ablets.	
		drug, ibup tablets, chl Enlist the	orofen tabl orocresol, monograp	ets, isonico metronidazo h analysis o	tinic acid to the tablets and of aspirin, 1	tablets, asco d dapsone ta paracetamol	orbic acid ablets.	
C305.		drug, ibup tablets, chl Enlist the isoniazide,	orofen tabl orocresol, monograp	ets, isonico metronidazo	tinic acid to the tablets and of aspirin, 1	tablets, asco d dapsone ta paracetamol	orbic acid ablets.	
C305.	5	drug, ibur tablets, chl Enlist the isoniazide, sulphate	orofen tabl orocresol, monograph diclofena	ets, isonico metronidazo h analysis o c, nicotinio	tinic acid to the tablets and of aspirin, per acid, pip	tablets, asco d dapsone ta paracetamol perazine and	orbic acid ablets. caffeine, d quinine	
		drug, ibup tablets, chl Enlist the isoniazide,	orofen tabl orocresol, monograp	ets, isonico metronidazo h analysis o	tinic acid to the tablets and of aspirin, 1	tablets, asco d dapsone ta paracetamol	orbic acid ablets.	
C305.	5 ACP	drug, ibur tablets, chl Enlist the isoniazide, sulphate	orofen tabl orocresol, monograph diclofena	ets, isonico metronidazo h analysis o cc, nicotinio	tinic acid to the tablets and of aspirin, per acid, pip	tablets, asco d dapsone ta paracetamol, perazine and Course ID	orbic acid ablets. caffeine, d quinine	
C305. Department	5 ACP	drug, ibur tablets, chl Enlist the isoniazide, sulphate	orofen tabl orocresol, monograph diclofena	ets, isonico metronidazo h analysis o c, nicotinio Course Code	tinic acid to the tablets and of aspirin, per acid, pipe PD306T	tablets, ascord dapsone taparacetamoly berazine and Course ID ions	orbic acid ablets. caffeine, d quinine	



		tablets car	tablets, capsules, and quality control test for tablets and capsules.					
				lation and o			-	
C306.	2			aspension and			iis dosage	
				terile dosag			phthalmic	
C306.	3			orms formu	-		-	
C300.	3	control tes	_	offits forfittu	ration aspe	cts and the	in quanty	
				of formulation	one of unit	dosaga forn	as such as	
C306.	4			quality cont		_		
				lation and o				
C306.	5	-		aspension and		-	iis dosage	
				Course		Course		
Department	ACP	Year	III	Code	PD307P	ID	C307	
Course 7	Fitle		P	harmacolog	y II Practio	cal		
Course Outc	ome No.		Course Outcome Statements					
C207	1	Understand		aboratory			ogy and	
C307.	1			ental pharm				
C207	2	Demonstrate the route of drug administration and use of anesthet						
C307.	4	in lab animals						
C207	2	Determine	the unknow	wn concentr	ation of dru	g by using	the animal	
C307.	3	tissue and	evaluate the	e pharmacol	ogy of drug	acting on C	NS.	
Department	ACP	Year	III	Course	PD308P	Course	C308	
		1 cai		Code		ID	C300	
41	1541.0	Code						
Course 7		Pharmaceutical Analysis Practical Course Outcome Statements						
Course Outc		A 1	Co	urse Outco	me Stateme	ents		
	ome No.		Co		me Stateme	ents	aration of	
Course Outc	ome No.	mixtures	Co ious chron	ourse Outco natographic	me Stateme techniques	ents for the sep		
Course Outc	ome No.	mixtures Perform	Co ious chron & interpr	urse Outco natographic ret quantita	me Stateme techniques	ents for the sep	aration of different	
Course Outco	ome No. 1 2	mixtures Perform spectrosco	Co ious chron & interpr pic method	ourse Outconatographic ret quantita	me Stateme techniques ative analy	for the sep		
Course Outco	ome No. 1 2	mixtures Perform spectrosco	Co ious chron & interpr pic method	natographic ret quantita s emical analy	me Stateme techniques ative analy	for the sep		
Course Outco	ome No. 1 2	mixtures Perform spectrosco	Co ious chron & interpr pic method	natographic ret quantita s emical analy Course	me Stateme techniques ative analy	for the sep		
Course Outco C308. C308.	ome No. 1 2 3 ACP	mixtures Perform spectrosco Perform th	Co ious chron & interpr pic method e electroch III	ret quantita s emical analy Course Code	me Stateme techniques ative analycis of drugs	for the sep	different	
C308. C308. C308. Department	ome No. 1 2 3 ACP	mixtures Perform spectrosco Perform th	ious chron ious chron interprete method e electroch III Pharn	natographic ret quantita s emical analy Course	me Statementechniques ative analytisis of drugs PD309P eutics II Properties	for the sep vsis using Course ID actical	different	
Course Outco C308. C308. C308. Department Course T	ome No. 1 2 3 ACP	mixtures Perform spectrosco Perform th Year	Co ious chron & interpr pic method e electroch III Pharm	natographic ret quantita s emical analy Course Code nacotherap	me Stateme techniques ative analy rsis of drugs PD309P eutics II Prome Stateme	for the sep vsis using Course ID actical	C309	
Course Outco	ome No. 1 2 3 ACP Title ome No.	mixtures Perform spectrosco Perform th Year Demonstra	ious chron ious chron interprete method e electroch III Pharm Coute the abi	ret quantitas emical analy Course Code macotherap	me Statementechniques ative analy rais of drugs PD309P eutics II Prome Statementectively gather	for the sep /sis using Course ID actical ents ner informa	C309	
Course Outco C308. C308. C308. Department Course T	ome No. 1 2 3 ACP Title ome No.	mixtures Perform spectrosco Perform th Year Demonstra patients, he	co ious chron & interpr pic method e electroch III Pharm Co te the abi ealth care p	ret quantitas emical analy Course Code macotherapourse Outco lity to effe	me Statement techniques ative analytis of drugs PD309P eutics II Prome Statement techniques and other s	for the sep //sis using Course ID actical ents ner information ources of data	C309 tion from ta such as	
Course Outco	ome No. 1 2 3 ACP Title ome No.	mixtures Perform spectrosco Perform th Year Demonstra patients, he medication Develop a	co ious chron & interpr pic method e electroch III Pharm Co te the abitealth care ponchers, men n ability to	ret quantitas emical analy Course Code macotherapourse Outco lity to effectorofessionals edical record	restatement techniques ative analytics of drugs are proposed propo	for the sep rsis using Course ID actical ents ner informa ources of da ng a patient and unders	c309 tion from at a such as case tanding of	
Course Outco	ome No. 1 2 3 ACP Title ome No.	mixtures Perform spectrosco Perform th Year Demonstra patients, he medication Develop a the pathop	co ious chron & interpr pic method e electroch III Pharm Co te the abite	cet quantitas emical analy Course Code macotherapourse Outco lity to effectorofessionals edical record apply their	restatement techniques ative analytics of drugs are proposed propo	for the sep resis using Course ID actical ents ner information ources of dang a patient and understates asses to patie	c309 tion from at a such as case tanding of ant cases	
Course Outco C308. C308. C308. Department Course T Course Outco C309.	ome No. 1 2 3 ACP Title ome No.	mixtures Perform spectrosco Perform th Year Demonstra patients, he medication Develop a the pathop Apply pati	co ious chron & interprepic method e electroch III Pharm Co te the abite alth care parts, men ability to hysiology and	cet quantitates emical analy Course Code macotherapourse Outco lity to effectorofessionals edical record apply their and manager l other labo	restatement techniques ative analyce analyce analyce analyce are set of drugs and other set in managing knowledgement of disearatory data	for the sep resis using Course ID actical ents ner informate ources of date and understand understand to patient a sees	c309 tion from at a such as case tanding of ant cases	
Course Outco	ome No. 1 2 3 ACP Title ome No.	mixtures Perform spectrosco Perform th Year Demonstra patients, he medication Develop a the pathop Apply pati and manage	co ious chron & interprepic method e electroch III Pharm Co te the abite alth care prepic charts, men ability to hysiology and the ement in a	cet quantitaes emical analy Course Code macotherape ourse Outco lity to effect orofessionals edical record apply their and manager l other laborange of clir	rative analy ra	for the sep rsis using Course ID actical ents ner informate ources of dang a patient and understates to patient to patient a os	tion from ata such as case tanding of assessment	
Course Outco C308. C308. C308. Department Course T Course Outco C309.	ome No. 1 2 3 ACP Title ome No.	mixtures Perform spectrosco Perform th Year Demonstra patients, he medication Develop at the pathop Apply path and manag Develop a	co ious chron & interpr pic method e electroch III Pharm Co te the abite alth care part charts, men ability to hysiology and ement in a un ability	cet quantitates emical analy Course Code macotherapeourse Outco lity to effetorofessionals edical recorder apply their and manager l other laborange of clinto set desi	rative analy resis of drugs PD309P eutics II Prome Statement of disease and other statement of disease aratory data anical scenaricable therap	for the sep resis using Course ID actical ents ner informa ources of da ng a patient and unders asses to patie to patient a os peutic goals	tion from at a such as case tanding of assessment as, identify	
Course Outco C308. C308. C308. Department Course T Course Outco C309. C309.	ome No. 1 2 3 ACP Title ome No. 1 2 3	Perform spectrosco Perform the Year Demonstrate patients, he medication Develop at the pathop Apply path and manage Develop at pharmacol	co ious chron & interprepic method e electroch III Pharm Co te the abite alth care per charts, men ability to hysiology and the ment in a line ability ogical and	cet quantitates emical analy Course Code macotherapourse Outco lity to effectorofessionals edical record apply their and manager l other labo range of clin to set desi non-pharma	restatement techniques ative analyces of drugs are proposed by the proposed	course ID actical ents ner informa ources of da ng a patient and unders ases to patie to patient a os peutic goals herapies, us	tion from ta such as case tanding of tassessment s, identify ual doses,	
Course Outco C308. C308. C308. Department Course T Course Outco C309.	ome No. 1 2 3 ACP Title ome No. 1 2 3	mixtures Perform spectrosco Perform th Year Demonstra patients, he medication Develop a the pathop Apply path and manag Develop a pharmacol dosage for	coious chron & interprepic method e electroch III Pharm Conte the abite alth care por charts, men ability to hysiology and the ement in a chronic and ability or correspondents, compared to the correspondents of the c	cet quantitas emical analy Course Code macotherapourse Outco lity to effectorofessionals edical record apply their and manager l other laborange of clir to set desi non-pharma	related process of drugs and other seriory data acological the related process of the serior of the	course ID actical ents ner informa ources of da ng a patient and unders ases to patie to patient a os peutic goals herapies, us	tion from ta such as case tanding of tassessment s, identify ual doses,	
Course Outco C308. C308. C308. Department Course T Course Outco C309. C309.	ome No. 1 2 3 ACP Title ome No. 1 2 3	mixtures Perform spectrosco Perform th Year Demonstra patients, he medication Develop at the pathop Apply path and manag Develop a pharmacol dosage for parameters	coious chron & interprepic method e electroch III Pharm Conte the abite alth care particularly to have a bility to have a bility to have a bility ogical and outcont and outcome and ou	cet quantitates emical analy Course Code macotherapourse Outco lity to effet professionals edical record apply their and manager l other laborange of clin to set desi non-pharma	related py	course ID actical ents ner informa ources of da and unders ases to patie to patient a os peutic goals herapies, us problems, r	tion from at a such as case tanding of assessment as identify ual doses, monitoring	
Course Outco C308. C308. C308. Department Course T Course Outco C309. C309.	ome No. 1 2 3 ACP Title ome No. 1 2 3	Perform spectrosco Perform the Year Demonstrate patients, he medication Develop at the pathop. Apply path and manage Develop a pharmacol dosage for parameters. Identify an	co ious chron & interprepic method e electroch III Pharm Co te the abite alth care per charts, men ability to hysiology and the ment in a line ability ogical and orms, come and outcome deprioritize	cet quantitas emical analy Course Code macotherapourse Outco lity to effectorofessionals edical record apply their and manager l other laborange of clir to set desi non-pharma	restatement techniques ative analyces of drugs are proposed to the proposed to	course ID actical ents ner informate ources of date and understate to patient a ost openite to patient a ost openite and understate to patient a ost openite and understate to patient a ost openite	tion from at a such as case tanding of ant cases assessment s, identify ual doses, monitoring ately select	



		monitoring	and assess	sing response	e to therapy			
Department	ACP	Year	III	Course Code	PD310P	Course ID	C310	
Course '	Title		Med	dicinal Cher	nistry Prac	tical		
Course Outo	come No.		Co	urse Outco	me Stateme	ents		
C310	.1		the chem s by follow	ical synthe ing the safet		ntermediates <i>,</i> s	/medicinal	
C310	.2	Determine calculation	-	duct yield	and ator	n economy	through	
C310	.3	Assess the quantitative		of organ	ic/medicina	l compoun	ds using	
Department	ACP	Year III Course Code PD311P Course ID C3						
Course '	Title		Pharmaceutical Formulations Practical					
Course Outo	ome No.	Course Outcome Statements						
C311	.1	Formulate the unit dosage forms such as tablets, capsules, a carryout the quality control test tablets and capsules.						
C311	.2	Demonstrate the Formulation and Evaluation the different parenterals preparation.						
C311	.3	Formulate suspension		uate the lic	quid orals	such as sy	yrups and	
Department	ACP	Veer IV Course PD401T Course C401						
		Code						
Course '	 Title		P	Code Code	erapeutics]			
Course Outo						II		
	come No.	patients, he	Co te the abi	harmacothe urse Outco lity to effe professionals	me Stateme ctively gath and other s	ents her informa	ata such as	
Course Outo	come No.	patients, he medication Develop at the path Gastrointes	te the abite alth care processing the charts, men ability to ophysiologistinal syste	harmacothe ourse Outcool lity to effe professionals edical record apply their y and r m, Hematolo	me Statement of the state of th	ents ther informations of date of a patient and unders	tanding of eases of	
Course Outo	.1	patients, he medication Develop at the path Gastrointer Psychiatry Apply path	te the abite alth care parts, men ability to ophysiolog stinal syste disorders, hology and	harmacothe ourse Outco lity to effe orofessionals edical record apply their y and r m, Hematolo Pain manag	me Statement of the sta	her information information in the sources of daing a patient and underst of discern, Nervout to patient a	ata such as case tanding of eases of as system,	
Course Outo	.1 .2	patients, he medication Develop at the path Gastrointer Psychiatry Apply path and manag Develop a pharmacold dosage for parameters	te the abite alth care particularly complysiology and ement in a un ability cogical and outcome and ou	harmacother ourse Outcome lity to effect or of essionals edical record apply their y and rem, Hematole Pain manage of clirato set designation drug	me Statement of the sta	her information information in the sources of daing a patient and underst of discern, Nervout to patient a	ata such as case tanding of eases of as system, assessment s, identify ual doses,	
C401	.1 .2 .3 .4	patients, he medication Develop at the path Gastrointer Psychiatry Apply path and manage Develop at pharmacold dosage for parameters for therapy Identify an patient sp	te the abite alth care particularly complysiology and ement in a un ability cogical and outcome and outcome disprisitized and outcome disprisitized ecific management in a control of the	harmacother ourse Outcool lity to effect or of essionals edical record apply their y and rem, Hematole Pain manage of clirato set designation drug me etherapeutic nagement resing response	me Statement ctively gath and other series in managing knowledge management ogical system of the sys	her information information in a patient and unders and unders and unders and information in a peutic goals herapies, us problems, rund appropriation requirements.	ata such as case tanding of eases of as system, assessment s, identify ual doses, monitoring attely select	
C401 C401 C401 C401 C401 Department	.1 .2 .3 .4 .4 .5 ACP	patients, he medication Develop at the path Gastrointer Psychiatry Apply path and manage Develop at pharmacold dosage for parameters for therapy Identify an patient sp	te the abite alth care particularly complysiology and ement in a un ability cogical and outcome and outcome disprisitized and outcome disprisitized ecific management in a control of the	harmacother ourse Outcool lity to effect orofessionals edical record apply their y and r m, Hematole Pain manage other labor range of clir to set desir non-pharma mon drug me etherapeutic nagement r sing response Course Code	me Statement of the sta	her information information in a patient a ios peutic goals herapies, us problems, rund appropriation requires	ata such as case tanding of eases of as system, assessment s, identify ual doses, monitoring attely select	
C401 C401 C401 C401	come No. .1 .2 .3 .4 .5 ACP Fitle	patients, he medication Develop at the path Gastrointer Psychiatry Apply path and manag Develop a pharmacoldosage for parameters for therapy Identify an patient sp monitoring	te the ability to ophysiology and ability ogical and outcome and an ability ogical and outcome and an assess IV	harmacother ourse Outcool lity to effect orofessionals edical record apply their y and r m, Hematole Pain manage other labor range of clir to set desir non-pharma mon drug me etherapeutic nagement r sing response Course Code	me Statement of the sta	her information and underst of discern, Nervous to patient a dos peutic goals herapies, us problems, rund appropriation requires	ata such as case tanding of eases of as system, assessment s, identify ual doses, monitoring ately select ments for	



C402.	1	Recognize primary he		& responsib	oilities as a	hospital pha	rmacist in		
C402.	2	Develop a	bility to ur	nderstand the	e preparatio	n and imple	ementation		
C402.	4	of budget i							
C402.	3		•	recognize		on and we	orking of		
C402.				f the hospita					
C402.	4			hospital pheling and dru	•		•		
C402.	5	Understand	d the roles	and responsi	bilities of C	ommunity P	harmacist		
Department	ACP	Year	IV	Course Code	PD403	Course ID	C403		
Course T	<u> </u>			Clinical I	Pharmacy				
Course Outco	ome No.			urse Outco					
C403.	1	Describe the daily activities of a clinical pharmacist in the hospital Interpret & analyse the laboratory parameters for appropriateness					hospitals		
C403.	2		analyse th	e laboratory	parameters	for appropri	ateness of		
		diagnosis Describe the establishment of a drug & reison information centre							
C403.		Describe the establishment of a drug & poison information centre							
C403.				of Pharmac	eutical care				
C403.	5	Evaluate b	iomedical l						
Department	ACP	Year	IV	Course Code	PD404T	Course ID	C404		
Course T	Title		Biostati	stics & Res	earch Meth	odology			
Course Outco	ome No.			urse Outco					
~	1	-	-						
('404)		Explain the designs of clinical studies, designing methodolog					udies		
C404.	1				sample size determination and report writing of clinical studies Explain basis of biostatistics, Data graphics, testing of hypothesis				
C404.		Explain ba	sis of bios	tatistics, Da	ta graphics,				
	2	Explain ba	usis of bios ds of epide	tatistics, Da miological s	ta graphics, tudies	testing of l	nypothesis		
C404.	2 3	Explain ba and metho Calculate a	usis of bios ds of epide and resolve	tatistics, Da miological s problems us	ta graphics, tudies sing various	testing of l	nypothesis		
C404. C404. C404.	2 3 4	Explain ba and method Calculate a Develop sk	nsis of bios ds of epide and resolve wills in drug	tatistics, Da miological s	ta graphics, tudies sing various n retrieval an	statistical for	nypothesis ormulas		
C404.	2 3 4	Explain ba and method Calculate a Develop sk	nsis of bios ds of epide and resolve wills in drug	tatistics, Da miological so problems us g information f using com	ta graphics, tudies sing various n retrieval an	statistical for	nypothesis ormulas		
C404. C404. C404. Department	2 3 4 5 ACP	Explain ba and method Calculate a Develop sk Develop th	nsis of bios ds of epide and resolve wills in drug	tatistics, Da miological si problems us g information	ta graphics, tudies sing various n retrieval an	statistical for	nypothesis ormulas		
C404. C404. C404.	2 3 4 5 ACP	Explain ba and method Calculate a Develop sk Develop th pharmacy	usis of bios ds of epide and resolve kills in drug ne ability o	tatistics, Da miological si problems us information f using com	ta graphics, tudies sing various n retrieval arputers in ho	statistical fond storage ospital and c	ormulas ommunity		
C404. C404. C404. Department	2 3 4 5 ACP	Explain ba and method Calculate a Develop sk Develop th pharmacy Year	usis of bioseds of epiderand resolve wills in drug are ability of the Biophar Co	ctatistics, Damiological suppoblems us information f using com Course Code maceutics & Course Code	ta graphics, tudies sing various n retrieval an puters in hor PD405T & Pharmac me Stateme	statistical for ad storage ospital and course ID okinetics ents	ormulas ommunity C405		
C404. C404. C404. Department Course T	2 3 4 5 ACP Title ome No.	Explain ba and method Calculate a Develop sk Develop th pharmacy Year	usis of bioseds of epiderand resolve cills in drug ne ability of the Biophar Cofactors affe	ctatistics, Damiological suppoblems us grant information from the composition of the comp	ta graphics, tudies sing various n retrieval arputers in horal PD405T PPA05T Pharmac Me Statemention, distrib	statistical for a statistical for a storage ospital and compared to the statistical for a statistical	ormulas ommunity C405 polism and		
C404. C404. C404. Department Course T	2 3 4 5 ACP Title ome No.	Explain ba and method Calculate a Develop sk Develop th pharmacy Year Study the felimination	sis of bios ds of epide and resolve rills in drug ne ability o IV Biophar Co factors affe n of drug	ctatistics, Damiological suppoblems us information f using community Course Code maceutics & Code cting absorpand apply to	ta graphics, tudies sing various n retrieval arputers in hor PD405T Pharmace Pharmace Statemention, distributes principal statemention, distributes principal statements and puters in hor puters in h	statistical for a statistical for a storage ospital and compared to the statistical for a statistical	ormulas ommunity C405 polism and		
C404. C404. C404. Department Course T	2 3 4 5 ACP Title ome No.	Explain ba and method Calculate a Develop sk Develop th pharmacy Year Study the felimination utilization	sis of bioseds of epiderand resolve wills in drug are ability of the Biophar Confectors affer of drug of the drug of the drug drug drug of the drug drug of the drug drug of the drug drug of the drug drug drug drug drug drug drug drug	ctatistics, Damiological suppoblems us groblems us groblems us groblems us groblems us groblems compand compand apply to the patients.	ta graphics, tudies sing various n retrieval arputers in hor PD405T Pharmace Pharmace tion, distributes principat.	statistical for and storage ospital and course ID okinetics ents ution, metables for the	ormulas ommunity C405 colism and optimum		
C404. C404. C404. C404. Department Course T Course Outco	2 3 4 5 ACP Title ome No.	Explain ba and method Calculate a Develop sk Develop th pharmacy Year Study the felimination utilization Calculate to	sis of bioseds of epiderand resolve cills in drug ne ability of the Biophar Confactors affer of drug of the drug the pharma	course Code comaceutics & Course Code course Code course Code course Code course Code course Outcoo	rameters of	testing of lestatistical for and storage ospital and consecution. Course ID okinetics onts outloon, metable ples for the IV bolus, I	ormulas ommunity C405 Poolism and optimum V infusion		
C404. C404. C404. C404. Department Course T	2 3 4 5 ACP Title ome No.	Explain ba and method Calculate a Develop sk Develop th pharmacy Year Study the se elimination utilization Calculate the	sis of bioseds of epiderand resolve cills in drug ne ability of the Biophar Confactors affer of drug of the drug the pharma	ctatistics, Damiological suppoblems us groblems us groblems us groblems us groblems us groblems compand compand apply to the patients.	rameters of	testing of lestatistical for and storage ospital and consecution. Course ID okinetics onts outloon, metable ples for the IV bolus, I	ormulas ommunity C405 Poolism and optimum V infusion		
C404. C404. C404. C404. Department Course T Course Outco	2 3 4 5 ACP Title ome No.	Explain ba and method Calculate a Develop sk Develop the pharmacy Year Study the selimination utilization Calculate the and extra semodels	sis of bioseds of epiderand resolve wills in drug and ability of the Biophar Confectors affer of drug of the drug the pharma wascular ro	course Code command apply to in the patier cokinetic pautes of adm	rameters of inistration last	statistical for the statis	ommunity C405 Coolism and optimum V infusion mpartment		
C404. C404. C404. C404. Department Course T Course Outco	2 3 4 5 ACP Title ome No.	Explain ba and method Calculate a Develop sk Develop the pharmacy Year Study the selimination utilization Calculate stand extrassemodels Assess the	sis of bioseds of epiderand resolve cills in drug ne ability of the ability of the drug of the drug of the drug of the pharma vascular rose pharmaco	course Code comaceutics & code comaceutics & code	rata graphics, tudies sing various in retrieval are puters in hor puters in the principal in the principal in the puters of inistration busing non or puters.	testing of lestatistical for and storage ospital and constitution. Course ID okinetics ents ution, metable ples for the IV bolus, I by using concompartments.	can be a second or mulas ommunity can be a second or munity or mulas ommunity can be a second or mulas		
C404. C404. C404. C404. Department Course T Course Outco	2 3 4 5 ACP Title ome No.	Explain ba and method Calculate a Develop sk Develop the pharmacy Year Study the selimination utilization Calculate the and extrassimodels Assess the such as method	sis of bioseds of epiderand resolve wills in drug are ability of the drug of the drug the pharma of the pharma of epharmacoe ean resideral of the side of the drug the pharmacoe ean resideral of the epharmacoe ean resideral of the pharmacoe ean resi	course Code command apply to in the patier cokinetic pautes of adm	rata graphics, tudies sing various in retrieval are puters in hor puters in the principal in the principal in the puters of inistration busing non or puters.	testing of lestatistical for and storage ospital and constitution. Course ID okinetics ents ution, metable ples for the IV bolus, I by using concompartments.	can be a second or mulas ommunity can be a second or munity or mulas ommunity can be a second or mulas		
C404. C404. C404. C404. Department Course T Course Outco	2 3 4 5 ACP Title ome No. 1	Explain ba and method Calculate a Develop sk Develop the pharmacy Year Study the felimination utilization Calculate the and extra models Assess the such as mentoories	sis of bioseds of epiderand resolve wills in drug and ability of the drug of t	course Code comaceutics & code comaceutics & code	rate graphics, tudies sing various in retrieval are puters in hor puters in the principal content. Tameters of inistration to statistically	testing of lestatistical for ad storage ospital and conspirated and conspirate	canypothesis ormulas ommunity C405 colism and optimum V infusion mpartment t methods heory and		



		prepare a bioavailability protocol as per clinical guidelines.							
C405.	5	Discuss about the causes and application of nonlinearity to assess							
		the pharma	the pharmacokinetic parameters. Vear IV Course PD406T Course C406						
Department	ACP	Year	Year IV Code PD406T Code Cd06 Clinical Toxicology						
Course 7									
Course Outc				urse Outco					
C406.	1			nciples of ma					
C406.	2	Identify the symptoms of acute and chronic poisoning and sugge appropriate supportive measures and antidotes for various causati agents.							
C406.	3	_	Recognize the symptoms of envenomation's, identify the cause ar provide general management						
C406.	4	Recognize the signs and symptoms and types of plant and for poisoning and provide first aid and general management.							
C406.	5	Identify si treatment f	-	symptoms cence.	of substance	e abuse an	d provide		
Department	ACP	Year	IV	Course Code	PD407P	Course ID	C407		
Course T	Γitle		Pharn	nacotherape	eutics III Pr	actical			
Course Outc	ome No.		Co	ourse Outco	me Stateme	ents			
C407.	1	patients, he	ealth care p	lity to effe professionals edical record	and other s	ources of da	ta such as		
C407.	2		•	apply their and managen	_		_		
C407.	3			l other labor range of clir			ssessment		
C407.	4	pharmacolo dosage fo	ogical and orms, com	to set desir non-pharma nmon drug me for thera	acological the related p	herapies, us	ual doses,		
C407.	5	Identify an patient sp	d prioritize ecific ma	therapeutic nagement r sing response	problems aregimens, a	11 1	•		
Department	ACP	Year	IV	Course Code	PD408P	Course ID	C408		
Course 7				spital Phar					
Course Ou	tcome			urse Outco					
C408.	1	Identify to interaction	_	interaction	and metho	ods to prev	vent drug		
C408.	2	Analyse dr	rug informa	tion queries	and to prov	ide solution			
C408.	3	Prepare pa	renteral and	d powders					
C408.	4	Acquire th	e skill to ar	nalyses vario	us methods	of inventory	control		
Department	ACP	Year	IV	Course	PD409P	Course	C409		



		Code ID			ID				
Course T	Γitle	Clinical Pharmacy							
Course Outc	ome No.	Course Outcome Statements							
C409.1		Provide patient care in cooperation with patients, prescribers, and other members of an inter professional health care team based on sound therapeutic principles and evidence-based data, considering various factors that may impact therapeutic outcome.							
C409.	2	Provide re informatio the society	levant, und n service to	oiased, and the member	well-referencers of the h	nced drug a nealthcare te	am and to		
C409.	3	and respon	sibly as a to	eam member		g ethically,	-		
C409.	4			covigilance fectively in		rovide mana of ADRs	igement to		
Department	ACP	Year	IV	Course Code	PD410P	Course ID	C410		
Course T	Γitle	Bi	opharmace	eutics & Pha	armacokino	etics Practio	al		
Course Outc	ome No.			urse Outco					
C410.	1	Carry out the dissolution of marketed different brands of same dosage forms and assess the dissolution rate.							
C410.2		Interpret the results of dissolution studies and correlate with in vivo performance of dosage form.							
C410.	3	Correlate results of in vitro dissolution studies of different dosage forms with in vivo performance of dosage form.							
C410.	4	Analyze the pharmacokinetics data through compartment models and non-compartment method.							
Department	ACP	Year	V	Course Code	PD501T	Course ID	C501		
Course 7	Γitle	Clinical Research							
Course Outc	ome No.	Course Outcome Statements							
C501.	1	Explain the various approaches of drug development process							
C501.	2	Describe the phases of clinical trials and regulatory systems involved in clinical research globally							
C501.	3	Interpret the various guidelines and ethical requirements for the conduct of clinical research							
C501.	4	Design the clinical research documents							
C501.	5	Analyse the safety monitoring in clinical trials and importance of data in clinical trials							
Department	ACP	Year	V	Course Code	PD502T	Course ID	C502		
Course T	<u>Γitle</u>	Ph	arm <u>ac</u> oepi	demiology A	And Pharm	acoeconom	ics		
Course Outc	ome No.			urse Outco					
C502.	1	Explain the measures	ne Concep	of Pharm	acoepidemi	iology and	outcomes		
C502.	2		he various	Pharmacoep	oidemiologi	c methods a	and source		



		of data for	Pharmacoe	epidemiologi	ic studies.	of data for Pharmacoepidemiologic studies.				
C502	2	Understand the various applications of Pharmacoepidemiology for								
C502.	3	various situations								
C502.	1	Explain	the conce	pt of Pha	armacoecono	omics with	various			
C502.	4	techniques								
C502.	5	Perform Pl	narmacoeco	onomic Eval	uation					
Department	ACP	Year	Year V Course Code PD503T Course ID C503							
Course 7	<u> Fitle</u>	Clinical		kinetics &			nitoring			
Course Outc	ome No.			urse Outco						
C503.	1			for studying	clinical pha	armacokinet	ics and its			
C303.	1			ige regimen						
C503.	2.			ed on indi	-	ent require	ment and			
C505.				V dose and v						
C503.	3	Explain types and mechanism of drug interaction and methods to								
		overcome it								
C503.	4	Describe the concepts of TDM in therapeutic management								
C503.	5	Understand the population pharmacokinetic model in designing								
		dosage regimen								
C503.	6	Explain the concept of pharmacogenetics.								
C503.	7	Interpret the impact of genetic polymorphisms of individuals								
		on pharmacokinetics and or pharmacodynamics of drugs Course Course Course Course								
Department	ACP	Year	V	Code	PD504P	ID	C504			
Course 7		Clerkship								
Course Outc		Course Outcome Statements								
C504.		Deliver clinical pharmacy services								
C504.		Provide pharmaceutical care planning								
C504.	3	Develop k	nowledge i	n therapeution	CS					
Department	ACP	Year	V	Course Code	PD505P	Course ID	C505			
Course 7					ject					
Course Outc	ome No.			urse Outco						
C505.1		Reviewing published articles and recording the findings in								
C505.1		_		a dividios	4114 100014		idiligs ili			
		impartial r	nanner							
C505.		impartial r Develop community	nanner data collec y, hospital a	etion and and clinical partition of the	reporting sl pharmacy	kills in the				



Course Outcomes Doctor of Pharmacy Post Bacculerate

Department	ACP	Year	I	Course Code	PB101T	Course ID	C101						
Course Title	Pharmacotherapeutics I&II												
Course Outcom	ne No.		Co	urse Outco	me Stateme	ents							
C101.1			_		anagement	of various	s diseases						
C101.1			the curricu										
C101.2		Explain the personalization of therapy based on patient -specific											
010112				drug therap									
G101.2						, therapeution							
C101.3				_	ia non-pnar	macologic r	nethods to						
			ient educati		nogist in r	otional drug	r use and						
C101.4				_		ational drug idelines in							
C101.4		geriatrics,	-	icist iii pre	scribing gu	ideilles III	pediatrics,						
				of pharmacis	st in rationa	l use of antil	piotics and						
C101.5			rug concept		,	000 01 01101	3101145 4114						
D	A CD			Course	PB102T	Course	C102						
Department	ACP	Year	I	Code	PB1021	ID	C102						
Course Title		Pharmacotherapeutics III											
Course Outcom	ne No.	Course Outcome Statements											
		Demonstrate the ability to effectively gather information from											
C102.	1	patients, health care professionals and other sources of data such											
		as medication charts, medical records in managing a patient case											
G100		Develop an ability to apply their knowledge and understanding of											
C102.	2	the pathophysiology and management of diseases of Gastro-											
		intestinal system, Hematological system, Nervous system,											
		Psychiatry disorders, Pain management Apply pathology and other laboratory data to patient											
C102.	3	assessment and management in a range of clinical scenarios											
C102.	4	Develop an ability to set desirable therapeutic goals, identify pharmacological and non-pharmacological therapies, usual doses,											
		dosage forms, common drug related problems, monitoring											
		parameters and outcome for therapy											
		-	_	_	_	ns and app							
C402.	5	select patient specific management regimens, and requirements											
		for monitoring and assessing response to therapy											
Department	ACP	Year	I	Course Code	PB103T	Course ID	C103						
Course Title			Hospi	tal & Comr	nunity Pha	rmacy							
Course Outcom	ne No.			urse Outco									
C102	1			& responsib	oilities as a	hospital pha	rmacist in						
C103.		primary he		1 , 1	<i>u</i> 1	, 1 1	1 .						
C103.2		Develop a	ability to i	ınderstand	the prepara	ation and in	Develop ability to understand the preparation and implement-						



		ation of bu	ıdget in a h	ospital						
C102.2	ation of budget in a hospital Develop ability to recognize the function and working of									
C103.3	various committees of the hospital									
C102.4		Understand various hospital pharmacy services like inventory								
			eling and dru							
C102.5		Understand	d the roles a	and responsi	bilities of C		Pharmacist			
Department	ACP	Year	I	Course Code	PB104T	Course ID	C104			
Course Title			Clinical F	Pharmacy						
Course Outcom	e No.			urse Outco						
C104.1			-	ivities of a c			-			
C104.2		Interpret doness of dia	•	the laborat	ory param	eters for ap	propriate-			
C104.3		Describe th	ne establish	ment of a dr	ug & poisor	n information	n centre			
C104.4		Explain the	e principles	of Pharmace	utical care					
C104.5			iomedical l							
Department	ACP	Year	I	Course Code	PD105T	Course ID	C105			
Course Title			Biostati	stics & Res	earch Meth	odology				
Course Outcom	e No.	Course Outcome Statements								
C104.1		Explain the designs of clinical studies, designing methodology,								
C104.1		sample size determination and report writing of clinical studies								
C104.2	1	Explain basis of biostatistics, Data graphics, testing of hypothesis and methods of epidemiological studies								
C104.3		Calculate and resolve problems using various statistical formulas								
C104.4		Develop skills in drug information retrieval and storage								
C104.5		Develop community		y of using	g compute	ers in hos	pital and			
Department	ACP	Year	I	Course Code	PB106T	Course ID	C406			
Course Title			Biophar	maceutics &	& Pharmac	okinetics				
Course Outcome	e No.	Course Outcome Statements								
		Study the factors affecting absorption, distribution, metabolism and								
C106.1		elimination of drug and apply these principles for the optimum								
		utilization of the drug in the patient.								
C107.2		Calculate the pharmacokinetic parameters of IV bolus, IV infusion								
C106.2		and extra vascular routes of administration by using compartment								
		models Assess the pharmacokinetics by using non compartment methods								
C106 3				•	_					
C100.5	C106.3			such as mean residential theory, statistically moment theory and physiological model.						
i .	;			nnai meory,	•		Ţ			
C10.		physiologi	cal model.			ent methods	as well as			
C106.4		physiologi Determine	cal model. the bioava	ilability by u	using differ					
C106.4	ļ	physiologi Determine prepare a b	cal model. the bioava pioavailabil	ilability by ı	using differ as per clinic	cal guideline	s.			



Department	ACP	Year	I	Course	PB107T	Course	C107		
Course Title			Clinical T	ovicology	ID				
Course Outcom	e No.	Clinical Toxicology Course Outcome Statements							
		Apply the				of poisoning.			
C107.1	_								
C107.2	2	Identify the symptoms of acute and chronic poisoning and suggest appropriate supportive measures and antidotes for various causative agents.							
C107.3	3	Recognize the symptoms of envenomation's, identify the cause and provide general management							
C107.4	ļ	poisoning	and provide	first aid and	d general m				
C107.5	;		igns and s for depender		of substanc	e abuse an	d provide		
Department	ACP	Year	I	Course Code	PD108P	Course ID	C108		
Course Title			Pharm	acotherape	utics I&I P	ractical			
Course Outcom	e No.		Co	urse Outco	me Statemo	ents			
C108.1 Demonstrate the ability to effectively gather informate patients, health care professionals and other source such as medication charts, medical records in managinal case					her sources	of data			
C108.2	,	Develop an ability to apply their knowledge and understanding of the pathophysiology and management of diseases to patient cases							
C108.3	3	11 0 1	sessment and management in a range of clinical scenarios						
C108.4		Develop an ability to set desirable therapeutic goals, identify pharmacological and non-pharmacological therapies, usual doses, dosage forms, common drug related problems, monitoring parameters and outcome for therapy							
C108.5	1	Identify and prioritize therapeutic problems and appropriately select patient specific management regimens, and requirements for monitoring and assessing response to therapy							
Department	ACP	Year	I	Course Code	PD109P	Course ID	C109		
Course Title			Pharm	acotherape	eutics III P	ractical			
Course Outcom	e No.			urse Outco					
C109.1	ļ.	Demonstrate the ability to effectively gather information from patients, health care professionals and other sources of data such as medication charts, medical records in managing a patient case							
C109.2	2					ge and unde of diseases t			
C109.3	3	Apply pat	thology and	d other lab	oratory da	ta to patien	it assess-		



		ment and	managemer	nt in a range	of clinical s	cenarios							
	ment and management in a range of clinical scenarios Develop an ability to set desirable therapeutic goals identify												
C109.4		Develop an ability to set desirable therapeutic goals, identify pharmacological and non-pharmacological therapies, usual doses,											
				mon drug		robiems, m	onitoring						
				ome for thera									
	_			ze therapeu									
C109.5		-	-	ic managem	_		uirements						
		for monito	ring and as	sessing respo	onse to thera	ару							
Department	ACP	Year	I	Course	PB110P	Course	C4110						
Depai tilient	ACI	1 cai	1	Code	1 D1101	ID	C4110						
Course Title			Hospital &	Communi	ty Pharmac	y Practical							
Course Outcom	e		_	urse Outco	-	•							
		Identify t	he drug	interaction	and metho	ods to prev	vent drug						
C110.1		interaction				1							
C110.2	<u> </u>			tion queries	and to provi	ide solution							
C110.3		-	renteral and			222000011							
C110.3		1 1		alyses vario	us methods	of inventors	control						
C110.4	1	Acquire in	c skill to al	Course	us memous	Course	COHUOI						
Department	ACP	Year	I	Code	PB111T	ID	C111						
Course Title		Clinical Pharmacy Practical											
Course Outcom	e No.	Course Outcome Statements											
		Provide patient care in cooperation with patients, prescribers, and											
		other members of an inter professional health care team based on											
C111.1	-	sound therapeutic principles and evidence-based data,											
		considering various factors that may impact therapeutic outcome.											
		Provide relevant, unbiased, and well-referenced drug and											
C111.2	1	poison information service to the members of the healthcare											
C111.2	•	team and to the society											
		· · · · · · · · · · · · · · · · · · ·											
C111.3	}												
		creatively, and responsibly as a team member Participate in pharmacovigilance activities, provide management											
C111.4	ļ	to ADRs and function effectively in prevention of ADRs											
		to ADRs a	na runction	Course	in preventio	Course							
Department	ACP	Year	I	Code	PB112T	ID	C112						
Course Title		Ri	onharmace		armacokino		Biopharmaceutics & Pharmacokinetics Practical						
Course Outcom	e No	Course Outcome Statements											
Course Outcom	C 110.												
C112.1	C112.1		Carry out the dissolution of marketed different brands of same dosage forms and assess the dissolution rate.										
C112.1						erent brands							
C112.2		dosage for	ms and asse	ess the disso	lution rate.		s of same						
C112.2		dosage for Interpret th	ms and asse ne results o	ess the disso f dissolution	lution rate.		s of same						
C112.2		dosage for Interpret the performan	ms and asso ne results or ce of dosag	ess the disso f dissolution e form.	lution rate. studies and	l correlate w	s of same						
	,	dosage for Interpret the performan Correlate in	ms and assone results of ce of dosage results of in	ess the disso f dissolution e form. vitro dissolu	lution rate. studies and	l correlate w	s of same						
C112.2	,	dosage for Interpret the performan Correlate to forms with	ms and assone results of ce of dosage esults of in vivo per	ess the disso f dissolution e form. vitro dissolu- formance of	studies and ution studies dosage for	l correlate w s of different	s of same ith in vivo						
C112.3	3	dosage for Interpret the performant Correlate in forms with Analyze the	ms and assone results of ce of dosagresults of in in vivo per ne pharmac	f dissolution e form. vitro dissolution formance of cokinetics data	studies and ution studies dosage for	l correlate w s of different	s of same ith in vivo						
	3	dosage for Interpret the performant Correlate in forms with Analyze the	ms and assone results of ce of dosage esults of in vivo per	f dissolution e form. vitro dissolution formance of cokinetics data	studies and ution studies dosage for	l correlate w s of different	s of same ith in vivo						
C112.3	3	dosage for Interpret the performant Correlate in forms with Analyze the	ms and assone results of ce of dosagresults of in in vivo per ne pharmac	f dissolution e form. vitro dissolution formance of cokinetics data	studies and ution studies dosage for	l correlate w s of different	s of same ith in vivo						



Course Title		Clinical Research						
Course Outcome	e No.	Course Outcome Statements						
C201.1		Explain the various approaches of drug development process						
C201.2	2	Describe the phases of clinical trials and regulatory systems						
				search globa			. C .1	
C201.3	}		he various clinical res		and ethical	requiremen	its for the	
C201.4	<u> </u>			search docun	nents			
						als and imp	ortance of	
C201.5		data in clir		8		r		
Department	ACP	Year	II	Course Code	PB202T	Course ID	C202	
Course Title		Ph	armacoepi	demiology A	And Pharm	nacoeconom	ics	
Course Outcome	e No.			urse Outco				
C202.1	-	Explain the measures	ne Concep	t of Pharm	nacoepidemi	iology and	outcomes	
C202.2	}			Pharmacoep pidemiologi		c methods a	and source	
C202.3	Understand the various applications of Pharmacoepidemiology for various situations							
C202.4	•	Explain the concept of Pharmacoeconomics with various techniques						
C202.5		Perform Pharmacoeconomic Evaluation						
	. ~-	Year II Course Code PB203T Course ID C203						
Department	ACP	Year	11	Code	PB203T	ID	C203	
Department Course Title	ACP			Code				
		Clinical	Pharmaco Co	Code Okinetics & Ourse Outco	Therapeuti <mark>me Stateme</mark>	ID ic Drug Mor ents	nitoring	
Course Title	e No.	Clinical	Pharmaco Co d the need	Code Okinetics & burse Outcome for studying	Therapeuti me Stateme clinical ph	ID ic Drug Mor	nitoring	
Course Title Course Outcome	e No.	Clinical Understandrole in desi	Pharmaco Co d the need igning dos doses bas	Code okinetics & ourse Outco for studying age regimen	Therapeutime Stateme clinical ph	ID ic Drug Mor ents	nitoring ics and its	
Course Title Course Outcome C203.1	e No.	Understand role in desi Calculate convert ora	Pharmaco Co d the need signing dose doses base al dose to I' ypes and	Code okinetics & ourse Outcoo for studying tage regiment ed on individual of the work of	Therapeuti me Stateme clinical ph vidual pati vice-versa	ic Drug Morents armacokinet	ics and its	
Course Title Course Outcome C203.1 C203.2 C203.3	e No.	Understand role in dest Calculate convert ora Explain to methods	Pharmaco Co d the need igning dose doses bas al dose to I ypes and to overcome	Code okinetics & burse Outcom for studying tage regiment age on individual of the control of t	Therapeuti me Stateme clinical ph vidual patrice-versa m of dr	ic Drug Morents armacokinet ient require ug interact	ics and its ment and tion and	
Course Title Course Outcome C203.1 C203.2	e No.	Understand role in desiral Calculate convert ora Explain to methods to Describe the Understand	Pharmaco Co d the need igning dos doses bas al dose to I' ypes and to overcome ne concepts d the popu	Code okinetics & ourse Outcoon for studying tage regiment age on individuals and with the control of the contr	Therapeution Statement Clinical photostructural patrice-versa common druger of druger control of druge	ic Drug Morents armacokinet	ics and its ment and tion and	
Course Title Course Outcome C203.1 C203.2 C203.3 C203.4 C203.5	e No.	Understand role in desiration convert oral Explain to methods to Describe the Understand dosage reg	Pharmaco Co d the need signing dose doses base al dose to IV ypes and so overcome ne concepts d the populimen	Code Dkinetics & Durse Outcomer for studying tage regiment and with the document of the docume	Therapeutime Statemer clinical phase vidual patrice-versa me of draw therapeutic macokinetic	ic Drug Morents armacokinet ient require ug interact	ics and its ment and tion and	
Course Title Course Outcome C203.1 C203.2 C203.3 C203.4	e No.	Understand role in desiral Calculate convert orange Explain to the methods to the Understand dosage regular to the Explain the convert orange Explain the convert orange in the	Pharmaco Co d the need igning dose doses bas al dose to I' ypes and co overcome ne concepts d the populimen e concept o	Code okinetics & ourse Outcome for studying tage regiment age red on individual of the control of TDM in the control of TDM in the control of the control o	Therapeutic me Stateme clinical photoical patrice-versa mof drutherapeutic macokinetic enetics.	ic Drug Morents armacokinet ient require ug interact management c model in	ics and its ment and tion and designing	
Course Title Course Outcome C203.1 C203.2 C203.3 C203.4 C203.5	e No.	Understand role in destruction convert oral Explain to methods to Describe the Understand dosage regular Explain the Interpret the Colonia Col	Pharmaco Co d the need igning dose doses base al dose to I' ypes and to overcome the concepts of the populimen e concept one impact	Code okinetics & ourse Outcome for studying tage regiment age red on individual of the control of TDM in the control of TDM in the control of the control o	Therapeution Statement Clinical photosical patrice-versa common draw therapeutic macokinetic cenetics.	ic Drug Morents armacokinet ient require ug interact management c model in	ics and its ment and tion and designing	
Course Title Course Outcome C203.1 C203.2 C203.3 C203.4 C203.5 C203.6	e No.	Understand role in destruction convert oral Explain to methods to Describe the Understand dosage regular Explain the Interpret the Colonia Col	Pharmaco Co d the need igning dose doses base al dose to I' ypes and to overcome the concepts of the populimen e concept one impact	Code okinetics & ourse Outcom for studying age regimented on individual of TDM in outcome of TDM in outcome of genetic of genetic of genetic of the outcome of genetic outcome of the outcome out	Therapeution Statement Clinical photosical patrice-versa common draw therapeutic macokinetic cenetics.	ic Drug Morents armacokinet ient require ug interact management c model in	ics and its ment and tion and designing	
Course Title Course Outcome C203.1 C203.2 C203.3 C203.4 C203.5 C203.6 C203.7	e No.	Understand role in designation of the convert oral explain to the convert oral explain the convert oral expla	Pharmaco Co d the need signing dose doses base al dose to IV ypes and co overcome e concepts d the populimen e concept one impact sinetics and	Code okinetics & ourse Outcome for studying age regimented on individual of TDM in the control of genetic or pharmacog of genetic or pharmacog Course Code	Therapeution Statement of the color of the c	ic Drug Morents armacokinet ient require ug interact management c model in sms of indivof drugs Course	ics and its ment and tion and designing viduals on	
Course Title Course Outcome C203.1 C203.2 C203.3 C203.4 C203.5 C203.6 C203.7 Department	e No.	Understand role in desi Calculate convert ora Explain to methods to Describe the Understand dosage reg Explain the Interpret the pharmacok Year	Pharmaco Co d the need igning dose doses bas al dose to IV ypes and co overcome ne concepts d the populimen e concept one impact cinetics and II Co	Code okinetics & ourse Outcom for studying tage regiment ed on individuals and varieties of TDM in the control of genetic for pharmacourse Course Code Cleriourse Outcom Course Outcom Course Code	Therapeution Statement Clinical photostatement Clinical photostatement Clinical photostatement Clinical patrice-versa communication of draw of draw of draw of draw of draw of draw of therapeutic macokinetic cenetics. PB204P kship me Statement Clinical Photostatement	ic Drug Morents armacokinet ient require ug interact management c model in sms of indivor drugs Course ID	ics and its ment and tion and designing viduals on	
Course Title Course Outcome C203.1 C203.2 C203.3 C203.4 C203.5 C203.6 C203.7 Department Course Title Course Outcome C204.1	e No. ACP	Understand role in designation convert oral explain to methods to the Understand dosage regular explain the Interpret the pharmacok Year	Pharmaco Co d the need igning dose doses base al dose to I' ypes and to overcome ne concepts d the populimen e concept one impact cinetics and II Co inical pharmaco	Code okinetics & ourse Outcom for studying tage regiment ed on individuals and with the control of TDM in the control of genetic for pharmacom of genetic for pharmacom Course Code Clericurse Outcom acy service	Therapeution Statement Clinical photostatement Clinical photostatement Clinical photostatement Clinical patrice-versa communication of draw of draw of draw of draw of draw of draw of therapeutic macokinetic cenetics. PB204P kship me Statement Clinical Photostatement	ic Drug Morents armacokinet ient require ug interact management c model in sms of indivor drugs Course ID	ics and its ment and tion and designing viduals on	
Course Title Course Outcome C203.1 C203.2 C203.3 C203.4 C203.5 C203.6 C203.7 Department Course Title Course Outcome	e No. ACP	Clinical Understand role in desiration desir	Pharmaco Co d the need signing dose doses base al dose to IV ypes and so overcome the concepts of the population of the population of the impact concept o	Code okinetics & ourse Outcom for studying tage regiment ed on individuals and with the control of TDM in the control of genetic for pharmacom of genetic for pharmacom Course Code Clericurse Outcom acy service	Therapeutic clinical phase ice-versa common drawing therapeutic macokinetic cenetics. polymorphic odynamics of PB204P kship me Statemens	ic Drug Morents armacokinet ient require ug interact management c model in sms of indivor drugs Course ID	ics and its ment and tion and designing viduals on	



Department	ACP	Year	II	Course Code	PB205P	Course ID	C20	5
Course Title		Project						
Course Outcom	e No.		Co	urse Outco	me Statem	ents		
C205.1	Reviewing impartial m	-	l articles	and record	ding the	findings	in	
C205.2 Develop data collection and reporting community, hospital and clinical pharmacy						skills in	the area	of
C205.3	}	Analysis and interpretation of the collected data						