B. Pharmacy

I Semester

BP101T. HUMAN ANATOMY & PHYSIOLOGY -I

At the end of the course, the student will be able to:

CO No.	COURSE OUTCOMES
BP101T.1	Describe vaiours systems of human body, cellular organization and Tissue
	levels
BP101T.2	Describe Integumentary System, Skeletal System and Joints and Their
	Disorders
BP101T.3	Knowledge On Various Body Fluid, Blood and Lymphatic System
BP101T.4	Relationship between various organs physiology and nervous system control, knowledge on special senses
BP101T.5	Knowledge on cardiovascular system and its regulation

CO No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP101T.1	2	2	0	2	0	1	0	0	1	3	0
BP101T.2	2	2	1	2	0	1	0	0	1	2	0
BP101T.3	2	1	1	1	0	1	0	0	1	2	0
BP101T.4	3	1	1	0	0	1	0	0	2	2	0
BP101T.5	2	3	0	1	0	1	0	0	2	2	0
PO1: Pharmacy Knowledge, PO2: Planning Abilities, PO3: Problem analysis, PO4: Modern tool usage, PO5: Leadership skills PO6: Professional identity, PO7: Pharmaceutical ethics, PO8: Communication, PO9: Pharmacist & society, PO10: Environment & sustainability, PO11: Life-long learning.											
Degre	Degree of compliance: 1-low2-medium3- high										

BP102T.PHARMACEUTICAL ANALYSIS-I

At the end of the course, the student will be able to:

CO No.	COURSE OUTCOMES
BP102T.1	Understand the knowledge on preparatory pharmacy and professional
	way of evaluating various conventional drugs, raw materials and
	formulations.
BP102T.2	Explain the theoretical basis of commonly used statistical methods &
	correctly analyze & interpret the results of statistical data from surveys,
	experiments & observational studies.
BP102T.3	Illustrate sources of errors in analytical techniques, methods to minimize them.
BP102T.4	Describe the various titrimetric and electrochemical methods of analysis
	and their application in quality control of pharmaceuticals.
BP102T.5	Describe gravimetry and limit tests-principles and applications.

Course Articulation Matrix: Mapping of COs with POs

CO No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP102T.1	3	0	0	0	3	0	2	1	0	1	3
BP102T.2	3	0	0	3	0	3	2	1	0	1	3
BP102T.3	3	0	0	0	0	0	2	1	0	1	3
BP102T.4	3	0	0	0	0	0	2	1	0	1	3
BP102T.5	3	0	0	0	0	0	2	1	0	1	3
PO1: Pharmacy Knowledge, PO2: Planning Abilities, PO3: Problem analysis, PO4: Modern											
0	tool usage, PO5: Leadership skills PO6: Professional identity, PO7: Pharmaceutical ethics, PO8: Communication PO9: Pharmacist & society PO10: Environment & sustainability										

PO8: Communication, PO9: Pharmacist & society, PO10: Environment & sustainability, PO11: Life-long learning.

Degree of compliance: 1-low 2-medium 3- high

BP103T. PHARMACEUTICS

At the end of the course, the student will be able to:

CO No.	COURSE OUTCOMES
BP103T.1	Know the history of profession of pharmacy.
BP103T.2	Understand the basics of different dosage forms, pharmaceutical incompatibilities and pharmaceutical calculations
BP103T.3	Understand the professional way of handling the prescription.
BP103T.4	Preparation and evaluation of various conventional dosage forms

Course Articulation Matrix: Mapping of COs with POs

CO No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP103T.1	2	1	2	3	3	1	0	0	0	0	0
BP103T.2	1	2	3	3	3	2	2	0	0	0	0
BP103T.3	2	2	3	3	2	2	3	0	0	0	0
BP103T.4	2	3	2	2	2	1	1	0	0	0	0

Degree of compliance: 1-low	2-medium	3- high
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BP104T. PHARMACEUTICAL INORGANIC CHEMISTRY-I

At the end of the course, the student will be able to:

CO No.	COURSE OUTCOMES
BP104T.1	Knowledge of sources of impurities and methods to determine the
	impurities in inorganic drugs and pharmaceuticals
BP104T.2	Understanding of the basic concepts of acidity /basicity, buffers and tonicity applicable in pharmaceuticals
BP104T.3	Understanding of the medicinal and pharmaceutical importance of inorganic compounds
BP104T.4	Understanding of concepts and principles of radiopharmaceuticals

Course Articulation Matrix: Mapping of COs with POs

CO No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP104T.1	3	2	1	1	2	2	3	0	1	2	3
BP104T.2	3	1	2	2	1	1	1	0	0	2	2
BP104T.3	3	0	0	0	1	1	1	0	0	2	2
BP104T.4	3	0	2	0	1	1	1	0	0	2	2

Degree of compliance: 1-low	2-medium	3- high
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BP105T. COMMUNICATION SKILLS

At the end of the course, the student will be able to:

CO No.	COURSE OUTCOMES
BP105T.1	Understand the behavioral needs for a pharmacist to function effectively in the areas of pharmaceutical operation.
BP105T.2	Communicate effectively (Verbal and Nonverbal).
BP105T.3	Effectively manage the teams at employer
BP105T.4	Develop interview skills.
BP105T.5	Develop Leadership qualities and essentials

Course Articulation Matrix: Mapping of COs with POs

CO No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP102T.1	3	3	3	3	0	0	0	0	2	3	2
BP102T.2	3	3	3	2	0	0	0	0	2	0	2
BP102T.3	3	3	3	2	0	0	0	0	2	0	2
BP102T.4	3	3	3	2	0	0	0	0	3	0	2
BP102T.5	3	3	3	2	0	0	0	0	2	0	2

PO1: Pharmacy Knowledge, PO2: Planning Abilities, PO3: Problem analysis, PO4: Modern tool usage, PO5: Leadership skills PO6: Professional identity, PO7: Pharmaceutical ethics, PO8: Communication, PO9: Pharmacist & society, PO10: Environment & sustainability, PO11: Life-long learning.

Degree of compliance: 1-low2-medium3- high

BP106RBT. REMEDIAL BIOLOGY

At the end of the course, the student will be able to:

CO No.	COURSE OUTCOMES
BP106RBT.1	know the classification and salient features of five kingdoms of life.
BP106RBT.2	understand the basic components of anatomy & physiology of plant.
BP106RBT.3	know understand the basic components of anatomy & physiology of animal with Special reference to human.

CO No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP106RBT.1	1	1	2	1	0	0	0	0	0	2	0
BP106RBT.2	1	1	2	1	0	0	0	0	0	2	0
BP106RBT.3	1	1	2	1	0	0	0	0	0	2	0
PO1: Pharmacy Knowledge, PO2: Planning Abilities, PO3: Problem analysis, PO4: Modern tool usage, PO5: Leadership skills PO6: Professional identity, PO7: Pharmaceutical ethics PO8: Communication, PO9: Pharmacist & society, PO10: Environment & sustainability PO11: Life-long learning.							ethics,				
Degree of compliance : 1-low 2-medium 3- high											

BP106RMT. REMEDIAL MATHEMATICS

At the end of the course, the student will be able to:

CO No.	COURSE OUTCOMES
BP106RMT.1	Know the theory and their application in Pharmacy
BP106RMT.2	Solve the different types of problems by applying theory.
BP106RMT.3	Appreciate the important Applications of mathematics in Pharmacy

CO No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP106RMT.1	1	1	3	0	0	0	0	0	3	0	3
BP106RMT.2	3	3	3	3	0	0	0	0	3	0	3
BP106RMT.3	3	3	3	3	0	0	0	0	3	0	3
tool usage, PO PO8: Commun	PO1: Pharmacy Knowledge, PO2: Planning Abilities, PO3: Problem analysis, PO4: Moder tool usage, PO5: Leadership skills PO6: Professional identity, PO7: Pharmaceutical ethics PO8: Communication, PO9: Pharmacist & society, PO10: Environment & sustainability PO11: Life-long learning.							ethics,			
Degree of compliance : 1-low 2-medium 3- high											

BP107P. HUMAN ANATOMY & PHYSIOLOGY-I

At the end of the course, the student will be able to:

CO No.	COURSE OUTCOMES
BP107P.1	To identify the various tissues and organs of different systems of human body.
BP107P.2	Able to perform Hemocytometry
BP107P.3	Learn to detect heart rate and pulse rate
BP107P.4	Correlate the theoretical knowledge with practical's

CO No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP107P.1	3	2	0	2	0	1	0	0	1	3	0
BP107P.2	3	2	1	2	0	1	0	0	1	2	0
BP107P.3	3	2	1	1	0	1	0	0	2	2	0
BP107P.4	3	2	1	0	0	1	0	0	2	2	0
PO1: Pharmacy	y Knov	vledge,	PO2: I	Plannin	g Abili	ties, PO	D3: Pro	blem a	nalysis	, PO4: N	/lodern
tool usage, PO	5: Lea	dership	skills	PO6: F	Professi	onal id	lentity,	PO7: 1	Pharma	ceutical	ethics,
PO8: Communication, PO9: Pharmacist & society, PO10: Environment & sustainability							ability,				
PO11: Life-lon	g learn	ing.									-
Degre	Degree of compliance : 1-low						nediun	ı	3	- high	

BP108P. PHARMACETICAL ANALYSIS

At the end of the course, the student will be able to:

CO No.	COURSE OUTCOMES
BP108P.1	To get acquaint to basic apparatus and instruments and their calibration
BP108P.2	Understand concept of various volumetric analysis.
BP108P.3	Understand concept of various electrochemical titrations
BP108P.4	To develop analytical skills in data interpretation and calculations

CO No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP108P.1	3	0	0	0	3	0	2	1	0	1	3
BP108P.2	3	0	0	3	0	3	2	1	0	1	2
BP108P.3	3	0	0	0	0	0	2	1	0	1	3
BP108P.4	3	0	0	0	0	0	2	1	0	1	2
PO1: Pharmac		-			-				•		
tool usage, PO	5: Lea	dership	sk1lls	PO6: 1	rotessi	ional ic	lentity,	PO7: 1	Pharma	ceutical	ethics,
PO8: Communication, PO9: Pharmacist & society, PO10: Environment & sustainabilit							ability,				
PO11: Life-long learning.											
Degree of compliance: 1-low						2-1	nediun	1	3	- high	

BP109P. PHARMACEUTICS

At the end of the course, the student will be able to:

CO No.	COURSE OUTCOMES
BP109P.1	Understand formulation and evaluation of pharmaceutical solution
BP109P.2	Understand formulation and evaluation of Pharmaceutical dispersed system
BP109P.3	Understand formulation and evaluation of pharmaceutical powders
BP109P.4	Understand formulation and evaluation of semisolid dosage form

Course Articulation Matrix: Mapping of COs with POs

CO No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP109P.1	3	1	1	2	0	1	0	0	0	0	0
BP109P.2	3	1	1	2	0	1	0	0	0	0	0
BP109P.3	3	1	1	1	0	1	0	0	0	0	0
BP109P.4	3	1	1	2	0	1	0	0	0	0	0

Degree of compliance: 1-low	2-medium	3- high
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BP110P. PHARMACETICAL INORGANIC CHEMISTRY

At the end of the course, the student will be able to:

CO No.	COURSE OUTCOMES
BP110P.1	Develop skills to perform limit test for given sample
BP110P.2	Perform identification inorganic salts through various qualitative tests
BP110P.3	Ability to perform tests for purity for different compounds as per IP
BP110P.4	Knowledge and skills to prepare inorganic salts -boric acid, potash alum and ferrous sulphate

Course Articulation Matrix: Mapping of COs with POs

CO No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP110P.1	3	0	0	0	3	0	2	1	0	1	3
BP110P.2	3	0	0	3	0	3	2	1	0	1	3
BP110P.3	3	0	0	0	0	0	2	1	0	1	3
BP110P.4	3	0	0	0	0	0	2	1	0	1	3
DO1: Dearmany Knowledge DO2: Dianning Abilities DO2: Drahlem analysis DO4: Madare											

Degree of compliance: 1-low	2-medium	3- high
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BP111P. COMMUNICATION SKILL

At the end of the course, the student will be able to:

CO No.	COURSE OUTCOMES
BP111P.1	Develop Basic communication important for Meeting People
BP111P.2	Knowledge about Pronunciations
BP111P.3	Ability to perform Advanced Learning
BP111P.4	Develop skills for Effective Writing

Course Articulation Matrix: Mapping of COs with POs

CO No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP111P.1	0	2	0	0	2	1	0	3	0	0	3
BP111P.2	0	2	0	0	2	1	0	2	0	0	2
BP111P.3	0	2	0	0	2	1	0	3	0	0	3
BP111P.4	0	2	0	0	2	1	0	2	0	0	3

Degree of compliance: 1-low	2-medium	3- high
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BP112P. REMEDIAL BIOLOGY

At the end of the course, the student will be able to:

CO No.	COURSE OUTCOMES
BP112P.1	Knowledge about basic introduction to experiments in biology
BP112P.2	Study of cell and its inclusions
BP112P.3	Determination of blood group, blood pressure and tidal volume.
BP112P.4	Develop skills for microscopic study and identification of tissues pertinent.

CO No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP112P.1	2	0	0	0	0	0	0	0	1	0	0
BP112P.2	2	0	0	0	0	0	0	0	1	0	0
BP112P.3	2	0	0	0	0	0	0	0	1	0	0
BP112P.4	2	0	0	0	0	0	0	0	1	0	0
PO1: Pharmacy Knowledge, PO2: Planning Abilities, PO3: Problem analysis, PO4: Modern tool usage, PO5: Leadership skills PO6: Professional identity, PO7: Pharmaceutical ethics, PO8: Communication, PO9: Pharmacist & society, PO10: Environment & sustainability, PO11: Life-long learning.											
Degree of compliance : 1-low 2-medium 3- high											