COURSE OUTCOME BOOKLET

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ANNASAHEB DANGE COLLEGE OF B PHARMACY, ASHTA

TAL: WALWA

DIST. SANGLI 416301

COURSE OUTCOME BOOKLET

LIST OF SUBJECTS

Course - PO matrix

Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP101T	3	-	2	-	-	-	-	1	-	-	1
BP102T	3	2	2.5	1	2	-	-	2	-	-	2
BP103T	3	1.5	2	2	1	2	1.6	3	2	2	1
BP104T	3	2	2.66	1.5	1.75	-	-	1.75	-	-	1.5
BP105T	1	-	-	2	1	-	1	3	-	-	-
BP106RBT	3	-	-	-	-	-	-	-	-	-	-
BP106RMT	1	-	3	2	-	-	-	-	-	-	-
BP107P	3	1.2	3	-	-	2	1	2	2	-	-
BP108P	3	2	2	1	2	-	2	2	-	-	2
BP109P	3	2	3	1	2	-	2	2	-	-	1
BP110P	3	1.5	2.33	-	1	-	1	1.66	-	1	1.66
BP111P	1	-	1	1	-	2	1	3	-	-	-
BP112RBP	3	-	-	2	-	-	1	1	-	1	-
BP201T	3	-	1	1	-	-	-	1.6	-	-	1
BP202T	3	2	3	1	2	-	-	2	-	-	2
BP203T	3	2	2.75	2.8	2	-	-	2	-	-	1
BP204T	3	1	2	2	-	1.5	1	1	1	-	-
BP205T	3	2	2	3	-	-	-	-	-	-	-
BP206T	-	-	2	2	-	-	2	2	-	3	-
BP207P	3	2	3	2	-	2	1	2	2	-	-
BP208P	3	1.33	2.6	2	-	2	1	1.6	2	-	-
BP209P	3	3	2	2	-	-	3	3	-	-	1
BP210P	2	2	3	3	-	-	-	2	-	-	-
BP301T	3	2	2	1	1	-	-	2	-	-	-

BP302T	3	2	2	2	1	-	1	2	-	-	2
BP303T	3	1	1.33	1.2	1	-	-	1	-	-	1.16
BP304T	3	2	2	2	-	-	-	2	-	-	1
BP305P	3	3	3	2	-	-	2	2	-	-	1
BP306P	3	3	3	2	-	-	2	2	-	-	1
BP307P	3	3	1.33	1.75	1.5	-	-	1	-	-	-
BP308P	3	2	2	2	-	-	2	2	-	-	1
BP401T	3	1	2	2	1	-	-	2	-	-	1
BP402T	3	1	2	2	1	-	-	2	-	-	1
BP403T	3	2	2	2	1	-	1	2	-	-	2
BP404T	3	1	1	-	1	-	-	1	1	-	-
BP405T	3	2	2.6	2	2	-	2	2.6	-	-	2
BP406P	3	1	2	2	1	-	1	2	-	1	1
BP407P	3	2	2	2	-	-	2	2	-	-	2
BP408P	3	-	-	2	-	-	1	1	-	2	-
BP409P	3	2	2.6	2	-	-	1.5	2	-	-	2
BP501T	3	1	2	2	-	-	-	1	-	-	1
BP502T	3	2	-	1.5	1	-	-	2	-	-	1
BP503T	3	-	1.5	-	-	-	1	1	1	-	-
BP504T	3	-	2	3	2	-	2	2	-	-	-
BP505T	3	2	2	2	1	1	3	2	3	2	2
BP506P	3	1.2	1.5	2	-	-	-	2	-	-	1
BP507P	3	1	1.3	1	1	-	1	1	-	1	-
BP508P	3	1.5	2.3	1	-	-	1	2	-	-	-
BP601T	3	1	2	2	1	-	-	2	-	-	1
BP602T	3	-	2	2	-	-	-	-	1.2	-	-
BP603T	3	2	2.8	3	2		-	3	-	2	1.5
BP604T	3	1	3	2.25	1	-	1	2	-	-	1

BP605T	3	-	2	2	-	-	-	2	-	-	-
BP606T	3	2	1.6	1.3	1	-	1	2.5	-	1	1
BP607P	3	1	2	2	2	1	1	2	-	1	1
BP608P	3	2	3	3	-	-	1	2	-	-	-
BP609P	3	2	3	2.5	-	-	1	2	-	-	1
BP701T	3	3	2.5	1	2	-	-	2	-	-	2
BP702T	3	1	1.6	2	1	-	-	2	-	-	1
BP703T	3	1.66	1.33	1.75	1	1.75	1.25	1.75	2.25	-	2.25
BP704T	3	-	1	2	-	-	-	2	-	-	-
BP705P	3	3	3	3	1	-	3	3	-	-	1
BP706PS	3	3	3	3	3	3	3	3	3	3	3
BP801T	3	1.75	1.67	1.25	1	-	2	2	-	-	1.75
BP802T	3	1.6	-	-	1	1	1	1	1.8	-	-
BP803ET	3	2	1.5	3	3	1	1	1	-	-	1
BP811ET	3	1	2	2	1	-	-	2	-	-	1
BP812PW	3	3	3	3	3	3	3	3	3	3	3
PO TARGET	2.89	1.81	2.16	1.93	1.42	1.69	1.50	1.91	1.85	1.67	1.39

COURSE OUTCOME BOOKLET

Semester I

COURSE OUTCOMES

Name of Course: BP 101T Human Anatomy & Physiology-I (Theory)

B. Pharm 1st Year (Semester: 1)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO101.1	Explain the gross morphology, structure, and function of various organs of human body
CO101.2	Describe the physiology of various organs.
CO101.3	Discuss the composition and function of body fluid.
CO101.4	Illustrate the various disorders related to human body system.
CO101.5	Describe the various homeostatic mechanisms and their imbalances
CO101.6	Identify the various tissues bones and organs of different systems of human body and their function

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO101.1	3	-	-	-	-	-	-	1	-	-	1
CO101.2	3	-	-	-	-	-	-	1	-	-	1
CO101.3	3	-	-	-	-	-	-	1	-	-	1
CO101.4	3	-	-	-	-	-	-	1	-	-	1
CO101.5	3	-	-	-	-	-	-	-	-	-	1
CO101.6	3	-	2	-	-	-	-	1	-	-	-
Total	18	-	2	-	-	-	-	5	-	-	5
BP101T	3	-	2	-	-	-	-	1	-	-	1

COURSE OUTCOMES

Name of Course: BP102T: Pharmaceutical Analysis (Theory)

B. Pharm 1st Year (Semester: I)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO102.1	Recall the basic concepts of Pharmaceutical analysis.
CO102.2	Illustrate the importance of Pharmacopoeia in analytical chemistry.
CO102.3	Describe the principle and procedure for preparation and standardization of standard solutions.
CO102.4	Explain the principles, methods, working and applications of different analytical methods and equipment's.
CO102.5	Apply the gained knowledge of pharmaceutical analysis for identification of indicators, factor calculation, and concentration of standard solutions.
CO102.6	Compare the end point determination of volumetric and electrochemical analysis.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO102.1	3	-	-	-		-	-	-	-	-	-
CO102.2	3	-	-	-		-	-	-	-	-	-
CO102.3	3	2	-	1	2	-	-	2	-	-	2
CO102.4	3	2	-	1	2	-	-	2	-	-	2
CO102.5	3	2	3	1	2	-	-	2	-	-	2
CO102.6	3	-	2	-	-	-	-	-	-	-	-
Total	18	6	5	3	6	-	-	6	-	-	6
BP102T	3	2	2.5	1	2	-	-	2	-	-	2

COURSE OUTCOMES

Name of Course: BP 103 Pharmaceutics I (Theory)

B. Pharm First Year (Semester: I)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO103.1	Explain historical background and development of pharmacy profession in India.
CO103.2	Discuss various official compendia.
CO103.3	Describe in detail various dosage forms.
CO103.4	Compare and constrast different dosage forms.
CO103.5	Summarize pharmaceutical incompatibilities.
CO103.6	Apply pharmaceutical calculation.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO103.1	3	-	-		1	2	1	-	1		1
CO103.2	3	-	-	2	-	-		-	1	1	1
CO103.3	3	2	-	2	-	-	3	3		3	1
CO103.4	3	-	-	-	-	-	-	-	-	-	1
CO103.5	3	1	1	-	-	-	1	-	-	-	-
CO103.6	3	-	3	-	-	-	-	-	-	-	-
Total	18	3	4	4	1	2	5	3	2	4	4
BP103T	3	1.5	2	2	1	2	1.6	3	2	2	1

COURSE OUTCOMES

Name of Course: BP 104 Pharmaceutical Inorganic Chemistry (Theory)

B. Pharm First Year (Semester: I)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO104.1	Describe the fundamental of Inorganic pharmaceuticals with different classes and their analysis.
CO104.2	Describe acid, bases, buffers and recall the fundamental principles of them.
CO104.3	Explain the structure, properties, methods of preparation and uses of various GIT agents and dental products.
CO104.4	Explain antimicrobial agents with its example and mechanism of action.
CO104.5	Analyse about the sources and methods to determine the impurities in inorganic drugs and pharmaceuticals by limit test.
CO104.6	Choose various electrolytes and radiopharmaceutical agents for pharmaceutical preparations and its applications. (K5)

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO104.1	3	-	-	-	-	-	-	-	-	-	-
CO104.2	3	-	-	-	1	-	-	1	-	-	2
CO104.3	3	2	3	2	2			2			2
CO104.4	3	-	2	1	2	-	-	2	-	-	1
CO104.5	3	-	-	-	2	-	-	2	-	-	1
CO104.6	3	-	3	-	-	-	-	-	-	-	-
Total	18	2	8	3	7	-	-	7	-	-	6
BP104T	3	2	2.66	1.5	1.75	-	-	1.75	-	-	1.5

COURSE OUTCOMES

Name of Course: BP 105 T Communication Skill (Theory)

B. Pharm 1st Year (Semester: I)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO105.1	Define terms related to communication, group discussion and listening skills.
CO105.2	Explain barriers, perspective, elements, and skills related to communication
CO105.3	Illustrate listening skills, types of interview, presentations, and written communication
CO105.4	Identify various communication styles and their importance.
CO105.5	Describe techniques and factors involved in communication and presentation.
CO105.6	Interpret knowledge of communication for effective presentation, group discussion, interview and writing skill.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO105.1	1	-	-	-	-	-	-	3	-	-	-
CO105.2	1	-	-	-	-	-	-	3	-	-	-
CO105.3	1	-	-	-	-	-	-	3	-	-	-
CO105.4	1	-	-	-	-	-	-	3	-	-	-
CO105.5	1	-	-	2	-	-	-	3	-	-	-
CO105.6	1	-	-	2	1	-	1	3	-	-	-
Total	6	-	-	4	1	-	1	12	-	-	-
BP105T	1	-	-	2	1	-	1	3	-	-	-

COURSE OUTCOMES

Name of Course: BP106RBT Remedial Biology (Theory)

B. Pharm First Year (Semester: I)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO106.1	Explain salient features of five kingdoms of life.
CO106.2	Develop the basic knowledge on morphology and functions of various parts of plant.
CO106.3	Explain the structure and functions of different organs of human body.
CO106.4	Illustrate physiology and nutritional requirement for plants.
CO106.5	Summarize the process of plant respiration, its growth and development.
CO106.6	Determine the role and function of cell and tissue of human body

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO106.1	3	-	-	-	-	-	-	-	-	-	-
CO106.2	3	-	-	-	-	-	-	-	-	-	-
CO106.3	3	-	-	-	-	-	-	-	-	-	-
CO106.4	3	-	-	-	-	-	-	-	-	-	-
CO106.5	3	-	-	-	-	-	-	-	-	-	-
CO106.6	3	-	-	-	-	-	-	-	-	-	-
Total	3	-	-	-	-	-	-	-	-	-	-
BP106T	3	-	-	-	-	-	-	-	-	-	-

COURSE OUTCOMES

Name of Course: BP106T Remedial Mathematics (Theory)

B. Pharm 1st Year (Semester: I)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO106.1	Define partial fraction, logarithms, functions, matrices, analytical geometry, differential equation and laplace transform.
CO106.2	Describe types/theory/properties of logarithms, matrices and determinant, integration, differential equation and laplace transform.
CO106.3	Explain different methods and characteristics of logarithms, matrices, integration and differential equation.
CO106.4	Use different formulas to solve equations in pharmaceutical problems.
CO106.5	Solve equations of derivatives, integration, differential equations, matrices and logarithms.
CO106.6	Relate application of partial fractions, logarithms, matrices, derivatives, integration, differential equation and laplace transform in pharmaceutical problems.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO106.1	1	-	3	-	-	-	-	-	-	-	-
CO106.2	1	-	3	-	-	-	-	-	-	-	-
CO106.3	1	-	3	-	-	-	-	-	-	-	-
CO106.4	1	-	3	2	-	-	-	-	-	-	-
CO106.5	1	-	3	2	-	-	-	-	-	-	-
CO106.6	1	-	3	2	-	-	-	-	-	-	-
Total	6	-	18	6	-	-	-	-	-	-	-
BP106T	1	-	3	2	-	-	-	-	-	-	-

COURSE OUTCOMES

Name of Course: BP 107 P Human Anatomy & Physiology-I(Practical)

B. Pharm 1st Year (Semester: I)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO107.1	Demonstrate & record some physiological parameters.
CO107.2	Perform the haematological tests like blood cell counts, haemoglobin estimation, bleeding/clotting time and report.
CO107.3	Explain the use of different instruments used in haematological test
CO107.4	Identify the different tissues and bones of human body by using anatomical models & histological slides.
CO107.5	Analyse the results of investigations.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO107.1	3	2	3	-	-	2	1	2	1	-	-
CO107.2	3	2	3	-	-	2	-	2	1	-	-
CO107.3	3	-	-	-	-	-	-	2	-	-	-
CO107.4	3	1	-	-	-	-	-	2	-	-	-
CO107.5	3	1	-	-	-	-	1	2	2	-	-
Total	15	6	6	-	-	4	2	10	4	-	-
BP107P	3	1.2	3	-	-	2	1	2	2	-	-

COURSE OUTCOMES

Name of Course: BP108P: Pharmaceutical Analysis (Practical)

B. Pharm 1st Year (Semester: I)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO108.1	Recall the basic concepts of Pharmaceutical analysis.
CO108.2	Explain principle, procedure involved in limit tests, and assay by volumetric and electrochemical methods.
CO108.3	Perform limit test and assay of compounds by volumetric and electrochemical methods using appropriate analytical skill.
CO108.4	Perform calculations for percentage purity of compounds.
CO108.5	Analyze the findings and report the result.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO108.1	3	-	-	-	-	-	2	2	-	-	-
CO108.2	3	-	-	-	-	-	2	2	-	-	-
CO108.3	3	2	2	1	2	-	2	2	-	-	2
CO108.4	3	2	2	-	2	-	2	2	-	-	2
CO108.5	3	-	2	-	-	-	2	2	-	-	2
Total	15	4	6	1	4	-	10	10	-	-	6
BP108P	3	2	2	1	2	-	2	2	-	-	2

COURSE OUTCOMES

Name of Course: BP 109P Pharmaceutics I (Practical)

B. Pharm First Year (Semester: I)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO109.1	Explain the importance of personal hygiene, personal protective equipment, cleaning of glassware's, equipment cleaning.
CO109.2	Relate the use of excipient in preparation of various dosage forms.
CO109.3	Demonstrate preparation of various conventional dosage forms.
CO109.4	Apply pharmaceutical calculation for conversion of master formula into working formula.
CO109.5	Make use of particular labeling specification and organoleptic evaluation for specific dosage forms

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO109.1	3	-	-	-	-	-	1	-	-	-	-
CO109.2	3	-	-	-	-	-	-	-	-	-	-
CO109.3	3	3	1	2	-	-	1	1			1
CO109.4	3	-	2	-	-	-	1	-	-	-	-
CO109.5	3	-	-	-	-	-	1	2	-	-	1
Total	15	4	6	1	4	-	10	10	-	-	2
BP109P	3	2	3	1	2	-	2	2	-	-	1

COURSE OUTCOMES

Name of Course: BP 110P Pharmaceutical Inorganic Chemistry Practical

B. Pharm First Year (Semester: I)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO110.1	Explain the sources of impurities and methods to determine the impurities in inorganic drugs and pharmaceuticals by limit tests.
CO110.2	Understand the reaction and pharmaceutical importance of Synthesis of inorganic compounds.
CO110.3	Perform the synthesis of different Inorganic compounds.
CO110.4	Calculate percentage purity of synthesized inorganic compounds.
CO110.5	Analyze the given unknown inorganic compounds having different functional groups by qualitative analysis

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO110.1	3	-	2	-	-	-	-	-	-	-	2
CO110.2	3	-	-	-	-	-	-	-	-	-	2
CO110.3	3	1	-	-	1	-	1	2	-	1	-
CO110.4	3	-	2	-	1	-	1	1	-	-	-
CO110.5	3	2	3	-	-	-	1	2	-	-	1
Total	15	3	7	-	2	-	3	5	-	1	5
BP110P	3	1.5	2.33	-	1	-	1	1.66		1	1.66

COURSE OUTCOMES

Name of Course: BP111 Communication Skill (Practical)

B. Pharm 1st Year (Semester:I)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO111.1	Define basic terminologies related to communication skill.
CO111.2	Describe Conversation, Interview skill, communication style, listening skill, presentation technique, e-mail etiquettes and their importance.
CO111.3	Demonstrate effective oral and written communication skills.
CO111.4	Execute the conversation in different situations with appropriate pronunciation.
CO111.5	Make a use of communication guidelines to prepare and deliver effective presentations.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO111.1	1	-	-	1	-	-	-	3	-	-	-
CO111.2	1	-	1	1	-	-	-	3	-	-	-
CO111.3	1	-	-	1	-	-	-	3	-	-	-
CO111.4	1	-	-	1	-	2	-	3	-	-	-
CO111.5	1	-	1	1	-	2	1	3	-	-	-
Total	5	-	2	5	-	4	1	15	-	-	-
BP111P	1	-	1	1	-	2	1	3	-	-	-

COURSE OUTCOMES

Name of Course: BP112RBP Remedial Biology (Practical)

B. Pharm First Year (Semester: I)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO112.1	Demonstrate the different techniques for preparation of microscopic slides.
CO112.2	Identify the different parts of plants by using microscopic slides.
CO112.3	Identify different types of human bones.
CO112.4	Perform different biological parameters.
CO112.5	Demonstrate the study of frog by using simulation.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO112.1	3	-	-	-	-	-	1	1	-	-	-
CO112.2	3	-	-	-	-	-	1	1	-	-	-
CO112.3	3	-	-	-	-	-	1	1	-	-	-
CO112.4	3	-	-	-	-	-	1	1	-	-	
CO112.5	3	-	-	2	-	-	1	1	-	1	-
Total	15	-	-	2	-	-	5	5	-	1	-
BP112P	3	-		2	-	-	1	1	-	1	-

Semester II

COURSE OUTCOMES

Name of Course: BP 201T Human Anatomy & Physiology-II (Theory)

B. Pharm 1st Year (Semester:II)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO201.1	Explain the gross morphology, structure, and function of various organs of human body
CO201.2	Describe the physiology of various organs.
CO201.3	Compare the physiology of different system to keep the body system in homeostasis.
CO201.4	Illustrate the various disorders related to human body system.
CO201.5	Explain the basic of Genetics and its importance in human life
CO201.6	Identify anatomical locations of various organs

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO201.1	3	-	-	-	-	-	-	2	-	-	1
CO201.2	3	-	-	-	-	-	-	2	-	-	1
CO201.3	3	-	-	-	-	-	-	2	-	-	1
CO201.4	3	-	2	-	-	-	-	1	-	-	1
CO201.5	3	-	-	-	-	-	-	1	-	-	1
CO201.6	3	-	-	-	-	-	-	-	-	-	1
Total	18	-	2	1	-	-	-	8	-	-	6
BP201T	3	-	1	1	-	-	-	1.6	-	-	1

COURSE OUTCOMES

Name of Course: BP202T: Pharmaceutical Organic Chemistry (Theory)

B. Pharm 1st Year (Semester: II)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO202.1	Explain fundamentals of organic chemistry to pharmaceutical sciences
CO202.2	Discuss reactivity and stability of organic compounds.
CO202.3	Describe the Classification, method of preparation, Chemical properties and reaction mechanism of organic compounds.
CO202.4	Explain the elimination, Electrophilic, free radical and Nucleophilic addition and substitution reactions of organic compounds.
CO202.5	Apply the gained knowledge of IUPAC and isomerism in identifying the structures of organic compounds, hybridization and isomeric relationship between a pair of molecules.
CO202.6	Compare the effect of substituent's on acidity and basicity

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO202.1	3	-	-	-		-	-	-	-	-	-
CO202.2	3	-	-	-		-	-	-	-	-	-
CO202.3	3	2	-	1	2	-	-	2	-	-	2
CO202.4	3	2	-	1	2	-	-	2	-	-	2
CO202.5	3	-	3	-	-	-	-	-	-	-	-
CO202.6	3	-	3	-	-	-	-	-	-	-	-
Total	18	4	6	2	4	-	-	4	-	-	4
BP202T	3	2	3	1	2	-	-	2	-	-	2

COURSE OUTCOMES

Name of Course: BP 203 T BIOCHEMISTRY (Theory)

B. Pharm 1st Year (Semester: II)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO203.1	Explain fundamentals of biomedical sciences.
CO203.2	Describe metabolic pathways of biomolecules and pathophysiological conditions in metabolism.
CO203.3	Illustrate enzyme kinetics, enzyme action and regulatory aspects of enzyme,
CO203.4	Describe mammalian genome with transcription and translation process
CO203.5	Examine the metabolism of nutrient molecules in physiological and pathological conditions.
CO203.6	Interpret the biochemical data emanating from a clinical test lab

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO203.1	3	2	-	2	2	-	-	2	-	-	1
CO203.2	3	2	2	3	2	-	-	2	-	-	1
CO203.3	3	2	3	3	2	-	-	2	-	-	1
CO203.4	3	2	-	3	2	-	-	2	-	-	1
CO203.5	3	2	3	3	2	-	-	2	-	-	1
CO203.6	3	2	3	3	2	-	-	2	-	-	1
Total	18	12	11	17	12	-	-	12	-	-	6
BP203T	3	2	2.75	2.8	2	-	-	2	-	-	1

COURSE OUTCOMES

Name of Course: BP 204 Pathophysiology (Theory)

B. Pharm 1st Year (Semester: II)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO204.1	Describe the basic terms used in pathology and mechanism that maintain homeostatic balance.
CO204.2	Explain the principles of cell injury and inflammation.
CO204.3	Explain the pathophysiology of some diseases.
CO204.4	Compare some physiological and pathological processes.
CO204.5	Identify the disease by using knowledge of pathophysiology.
CO204.6	Develop health counseling and instruction guidelines to prevent some diseases.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO204.1	3	-	-	-	-	-	-	-	-	-	-
CO204.2	3	-	-	-	-	-	-	-	-	-	-
CO204.3	3	1	-	2	-	-	-	2	-	-	-
CO204.4	3	1	-	1	-	-	-	1	-	-	-
CO204.5	3	1	2	1	-	1	-	-	1	-	-
CO204.6	3	1	2	2	-	2	1	1	1	-	-
Total	18	4	4	6	-	3	1	4	2	-	-
BP204T	3	1	2	2	-	1.5	1	1	1	-	-

COURSE OUTCOMES

Name of Course: BP205 Computer Application in Pharmacy (Theory)

B. Pharm 1st Year (Semester: II)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO205.1	Describe aspects related to number system and software development life cycle.
CO205.2	Explain various web technologies, databases and data base management system
CO205.3	Illustrate applications of computers in field of pharmacy
CO205.4	Summarize objectives and impact of bioinformatics in field of pharmacy
CO205.5	Explain computers as data analytics in laboratory and text information.
CO205.6	Make use of various applications of computer in pharmacy field

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO205.1	-	-	-	3	-	-	-	-	-	-	-
CO205.2	-	-	-	3	-	-	-	-	-	-	-
CO205.3	3	-	-	3	-	-	-	-	-	-	-
CO205.4	3	-	-	3	-	-	-	-	-	-	-
CO205.5	3	-	-	3	-	-	-	-	-	-	-
CO205.6	3	2	2	3	-	-	-	-	-	-	-
Total	12	2	2	18	-	-	-	-	-	-	-
BP205T	3	2	2	3	-	-	-	-	-	-	-

COURSE OUTCOMES

Name of Course: BP206T Environment Science (Thoery) (Theory)

B. Pharm 1st Year (Semester: II)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO206.1	Explain various natural resources and problems associated with them
CO206.2	Explain the environmental pollution and its impact
CO206.3	Illustrate various ecosystem and necessity of their conservation
CO206.4	Interpret the impact of industrial and social development on environment
CO206.5	Explain the need of environment protection and related ethics.
CO206.6	Utilize the knowledge to create awareness among society about environment protection

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO206.1	-	-	-	-	-	-	-	-		3	-
CO206.2	-	-	-	-	-	-	-	-	-	3	-
CO206.3	-	-	-	-	-	-	-	-	-	3	-
CO206.4	-	-	-	-	-	-	-	-	-	3	-
CO206.5	-	-	-	-	-	-	2	-	-	3	-
CO206.6	-	-	2	2	-	-	-	2	-	3	-
Total	-	-	2	2	-	-	2	2	-	18	-
BP206T	-	-	2	2	-	-	2	2	-	3	-

COURSE OUTCOMES

Name of Course: BP 207 P Human Anatomy & Physiology-II (Practical)

B. Pharm 1st Year (Semester: II)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO207.1	Demonstrate and record some physiological parameters.
CO207.2	Explain the anatomy and physiology of various organs & tissues.
CO207.3	Explain the various family planning methods and their significance.
CO207.4	Identify the different organs and tissues of human body by using anatomical models and histological slides.
CO207.5	Analyse the results of investigations.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO207.1	3	2	3	2	-	2	1	2	-	-	-
CO207.2	3	-	-	-	-	-	-	-	-	-	-
CO207.3	3	-	-	2	-	2	-	-	2	-	-
CO207.4	3	1	2	2	-	-	-	1	-	-	-
CO207.5	3	1	3	-	-	-	1	2	-	-	-
Total	15	4	8	6	-	4	2	5	2	-	-
BP207P	3	1.33	2.6	2	-	2	1	1.6	2	-	-

COURSE OUTCOMES

Name of Course: BP208P: Pharmaceutical Organic Chemistry (Practical)

B. Pharm 1st Year (Semester: II)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO208.1	Explain the principal, reaction and mechanism for synthesis and qualitative tests of different organic compounds.
CO208.2	Perform the synthesis of different organic compounds.
CO208.3	Calculate percentage purity of synthesized organic compounds.
CO208.4	Construct the molecular models
CO208.5	Analyze the given unknown organic compounds having different functional groups.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO208.1	3	-	-	2	1	-	1	2	-	-	-
CO208.2	3	1	-	-	1	-	1	2	-	1	-
CO208.3	3	-	2	-	1	-	1	1	-	-	-
CO208.4	3	1	-	2	-	-	1	1	-	-	2
CO208.5	3	2	3	-	-	-	1	2	-	-	1
Total	15	4	5	4	3	-	5	8	-	1	3
BP208P	3	1.33	2.5	2	1	-	2.5	1.6	-	1	1.5

COURSE OUTCOMES

Name of Course: BP 209 P BIOCHEMISTRY (Practical)

B. Pharm 1rd Year (Semester: II)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO209.1	Explain different qualitative and quantitative tests for biomolecules
CO209.2	Measure pH of buffer solutions and enzyme activity
CO209.3	Prepare standard buffer solutions and different reagents for qualitative and quantitative tests
CO209.4	Perform qualitative and quantitative tests for different biochemical components
CO209.5	Analyse the different biological components for their normal and abnormal constituents

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO209.1	3	-	-	-	-	-	3	3	-	-	1
CO209.2	3	3	1	3	-	-	3	3	-	-	1
CO209.3	3	3	2	1	-	-	3	3	-	-	1
CO209.4	3	3	3	2	-	-	3	3	-	-	1
CO209.5	3	3	2	2	-	-	3	3	-	-	1
Total	15	12	8	8	-	-	15	15	-	-	5
BP209P	3	3	2	2	-	-	3	3	-	-	1

COURSE OUTCOMES

Course Code and Course Title BP210P Computer Application in Pharmacy (Practical)

Class F.Y. B. Pharmacy, Sem.-II

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO210.1	Describe aspects related to number system, HTML, and drug databases
CO210.2	Explain aspects of MS access and MS Office
CO210.3	Operate MS office to create forms, labels, and presentations
CO210.4	Make use of database creation tools to store, view, modify, export and delete the data
CO210.5	Create pages using HTML

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO210.1	2	-	-	3	-	-	-	-	-	-	-
CO210.2	-	-	-	3	-	-	-	-	-	-	-
CO210.3	-	2	3	3	-	-	-	2	-	-	-
CO210.4	-	2	3	3	-	-	-	-	-	-	-
CO210.5	-	2	3	3	-	-	-	-	-	-	-
Total	2	6	9	15	-	-	-	2	-	-	-
BP210P	2	2	3	3	-	-	-	2	-	-	-

Semester III

COURSE OUTCOMES

Name of the Course: BP301T Pharmaceutical Organic Chemistry II (Theory)

II B. Pharma (Semester III)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO301.1	Explain methods of preparations, reactions, mechanism and uses of different organic compounds.
CO301.2	Describe different types of substituents and acidic or basic properties of organic compounds.
CO301.3	Discuss rules and theories to determine the aromaticity or stability of different organic compounds.
CO301.4	Illustrate the different analytical constants of fats and oils and evidences in derivation of structure of Benzene.
CO301.5	Apply knowledge of rules to draw structure and recognize names of organic compounds.
CO301.6	Analyze effect of different substituents on orientation, reactivity and properties of organic compounds.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO301.1	3	2	-	1	1	-	-	2	-	-	-
CO301.2	3		-	-	-	-	-	-	-	-	-
CO301.3	3	2	-	1	1	-	-	2	-	-	-
CO301.4	3	2	2	1	1	-	-	2	-	-	-
CO301.5	3	2	-	1	1	-	-	2	-	-	-
CO301.6	3	-	2	-	-	-	-	-	-	-	-
Total	18	8	4	4	4	-	-	8	-	-	-
BP301T	3	2	2	1	1	-	-	2	-	-	-

COURSE OUTCOMES

Course Code and Course Title: BP302T Physical Pharmaceutics I (Theory)

B. Pharm 2nd Year (Semester: III)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO302.1	Define States of Matter and its properties, Physicochemical properties of drug molecules, Solubility, Surface and interfacial phenomenon, Complexation and protein binding, pH, buffers and isotonicity.
CO302.2	Explain basic concepts of States of Matter, Physicochemical properties of drug molecules, Solubility, Surface and interfacial phenomenon, Complexation and protein binding, pH, buffers and isotonicity.
CO302.3	Classify various methods for the determination, factors affecting States of Matter, Physicochemical properties of drug molecules, Solubility, Surface and interfacial phenomenon, Complexation and protein binding, pH, buffers and isotonicity.
CO302.4	Solve mathematical equations, derivations, calculations relating to States of Matter, Physicochemical properties of drug molecules, Solubility, Surface and interfacial phenomenon, Complexation and protein binding, pH, buffers and isotonicity.
CO302.5	Apply the key concepts of States of Matter, Physicochemical properties, Solubility, Surface and interfacial phenomenon, Complexation and protein binding, pH, buffers and isotonicity in development of pharmaceutical dosage form and treatment of diseases.
CO302.6	Relate Physicochemical properties of drug substances in development of stable pharmaceutical dosage form and bioavailability.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO302.1	3	2	-	2	1	-	1	2	-	-	2
CO302.2	3	2	-	2	1	-	1	2	-	-	2
CO302.3	3	2	-	2	1	-	1	2	-	-	2
CO302.4	3	-	2	-	-	-	-	-	-	-	-
CO302.5	3	-	2	-	-	-	-	-	-	-	2
CO302.6	3	-	2	-	-	-	-	-	-	-	-
Total	18	6	6	6	3	-	3	6	-	-	8
BP302T	3	2	2	2	1	-	1	2	-	-	2

COURSE OUTCOMES

Name of Course: BP 303T Pharmaceutical Microbiology (Theory)

B. Pharm 2nd Year (Semester: III)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO303.1	Outline history, various branches, scope, importance & applications of microbiology.
CO303.2	Compare Prokaryotes and Eukaryotes as well as various types of microscopic techniques.
CO303.3	Describe various microorganism in detail like bacteria, virus, fungi with its identification techniques
CO303.4	Explain different techniques of sterilization and disinfection with its evaluation
CO303.5	Discuss design of aseptic area, microbial spoilage and animal cell culture.
CO303.6	Analyse Pharmaceuticals with the help microbiological standardization methods like microbial assay

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO303.1	3	-	-	-	-	-	-	-	-	-	1
CO303.2	3	1	-	2	1	-	-	1	-	-	1
CO303.3	3	1	1	1	-	-	-	-	-	-	1
CO303.4	3	-	1	1	-	-	-	-	-	-	2
CO303.5	3	-	-	1	1	-	-	1	-	-	1
CO303.6	3	1	2	1	1	-	-	1	-	-	1
Total	18	3	4	6	3	-	-	3	-	-	7
BP303T	3	1	1.33	1.20	1	-	-	1	-	-	1.16

COURSE OUTCOMES

Name of Course: BP304T Pharmaceutical Engineering (Theory)

B. Pharm 2nd Year (Semester: III)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO304.1	Define the basic terminologies related to unit operations, fluid flow, plant construction material and corrosion.
CO304.2	Explain objectives, applications, mechanisms, basic laws and related equations of various unit operations.
CO304.3	Discuss the types of, differences between and factors influencing unit operations, fluid flow, materials of plant constructions, material handling, corrosion and its prevention.
CO304.4	Describe principle, construction and working of various equipments involved in unit operations.
CO304.5	Illustrate merits, demerits and uses of various equipments involved in unit operations.
CO304.6	Use principles of unit operations in relation to pharmaceutical manufacturing process and simple problems associated to unit operations.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO304.1	3	2	-	2	-	-	-	2	-	-	1
CO304.2	3	2	-	2	-	-	-	2	-	-	1
CO304.3	3	2	-	2	-	-	-	2	-	-	1
CO304.4	3	2	-	2	-	-	-	2	-	-	1
CO304.5	3	2	-	2	-	-	-	2	-	-	1
CO304.6	3	-	2		-	-	-	-	-	-	
Total	18	10	2	10	-	-	-	10	-	-	5
BP304T	3	2	2	2	-	-	-	2	-	-	1

COURSE OUTCOMES

Name of the Course: BP305P Pharmaceutical Organic Chemistry II (Practical)

II B. Pharma (Semester III)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO305.1	Explain principle, reaction, mechanism, procedure and uses of synthesized compounds.
CO305.2	Describe principle, reaction, procedure and significance of analytical constants
CO305.3	Demonstrate different techniques like titration, steam distillation and recrystallization.
CO305.4	Perform synthesis, recrystallization and analytical constant determination of different organic compounds
CO305.5	Analyze the percentage yield and purity of the given organic compounds.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO305.1	3	-	-	-	-	-	-	2	-	-	-
CO305.2	3	-	-	-	-	-	-	2	-	-	-
CO305.3	3	-	-	-	-	-	-	2	-	-	1
CO305.4	3	3	3	2	-	-	2	2	-	-	1
CO305.5	3	3	3	2	-	-	2	2	-	-	1
Total	18	6	6	4	-	-	4	10	-	-	3
BP305P	3	3	3	2	-	-	2	2	-	-	1

COURSE OUTCOMES

Course Code and Course Title BP306P Physical Pharmaceutics -I (Practical)

Class S.Y. B. Pharmacy, Sem.-III

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO306.1	Explain fundamental concepts of specific gravity, solubility, pKa properties, partition co- efficient, phenol-water system, surface tension, HLB, CMC, adsorption isotherm, complexation, stability constant, and refraction.
CO306.2	Describe principle, working and applications of basic and advanced techniques, equipments used in determination and factor affecting specific gravity, solubility, pKa properties, partition co- efficient, phenol-water system, surface tension, HLB, CMC, adsorption isotherm, stability constant, and refraction.
CO306.3	Demonstrate various experiments of specific gravity, solubility, pKa properties, partition co- efficient, phenol-water system, surface tension, HLB, CMC, adsorption isotherm, stability constant, and refraction.
CO306.4	Operate different pharmaceutical laboratory instruments used in the determination of specific gravity, solubility, pKa properties, partition co-efficient, phenol-water system, surface tension, HLB, CMC, adsorption isotherm, stability constant, and refraction.
CO306.5	Convert mathematical data of experiments of specific gravity, solubility, pKa properties, partition co- efficient, phenol-water system, surface tension, HLB, CMC, adsorption isotherm, stability constant, and refraction in graphical way and interpret the same.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO306.1	3	-	-	-	-	-	-	2	-	-	-
CO306.2	3	-	-	-	-	-	-	2	-	-	-
CO306.3	3	-	-	-	-	-	-	2	-	-	1
CO306.4	3	3	3	2	-	-	2	2	-	-	1
CO306.5	3	3	3	2	-	-	2	2	-	-	1
Total	18	6	6	4	-	-	4	10	-	-	3
BP306P	3	3	3	2	-	-	2	2	-	-	1

COURSE OUTCOMES

Name of Course: BP 307P Pharmaceutical Microbiology (Practical)

B. Pharm 2nd Year (Semester: III)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO307.1	Explain working of various instruments used in microbiology laboratory
CO307.2	Demonstrate basic techniques in pharmaceutical microbiology for sterilization of glassware's, sterilization of medium & subculture of micro-organisms
CO307.3	Identify microorganism by using various staining technique like monochrome, negative staining grams staining and acid fast staining
CO307.4	analyze chemical compound like antibiotics of vitamin with the help of micro-organism by microbial assay
CO307.5	Analyse water by MPN test and various biochemical tests

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO307.1	3	1	-	-	-	-	-	1	-	-	-
CO307.2	3	3	-	1	2	-	-	1	-	-	-
CO307.3	3	3	2	2	1	-	-	1	-	-	-
CO307.4	3	3	1	2	2	-	-	1	-	-	-
CO307.5	3	3	1	2	1	-	-	1	-	-	-
Total	15	12	4	7	6	-	-	1	-	-	-
BP307P	3	3	1.33	1.75	1.5	-	-	1	-	-	-

COURSE OUTCOMES

Name of Course: BP308P Pharmaceutical Engineering (Practical)

B. Pharm 2nd Year (Semester:III)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO308.1	Define the basic concepts and laws related to unit operations
CO308.2	Explain the principle and theoretical aspects related to experiments.
CO308.3	Describe principle, construction, working, merits, demerits and uses of various equipments involved in experiments
CO308.4	Demonstrate the operation of some equipments and experimental setup used to carry out the experiments
CO308.5	Determine the experimental parameters of unit operations like heat processes, milling, separation techniques, mixing, crystallisation etc. and interpret the results.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO308.1	3	-	-	-	-	-	-	2	-	-	-
CO308.2	3	-	-	-	-	-	-	2	-	-	-
CO308.3	3	-	-	-	-	-	-	2	-	-	-
CO308.4	3	2	2	2	-	-	2	2	-	-	1
CO308.5	3	2	2	2	-	-	2	2	-	-	1
Total	15	4	4	4	-	-	4	10	-	-	2
BP308P	3	2	2	2	-	-	2	2	-	-	1

Semester IV

COURSE OUTCOMES

Name of the Course: BP401T Pharmaceutical Organic Chemistry III (Theory)

B. Pharm 2nd Year (Semester IV)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO401.1	Define the fundamental components of the stereoisomerism, heterocyclic chemistry and synthetically important reactions.
CO401.2	Explain the stereo-chemical aspects of optical isomerism. geometrical, conformational and atropisomerism.
CO401.3	Describe the methods of preparation, properties, reactions, mechanism and application of heterocyclic compounds.
CO401.4	Discuss the principle, properties, reaction, mechanism and application of synthetically important reactions.
CO401.5	Apply knowledge of IUPAC system and projection formulae to recognize the name and draw structures.
CO401.6	Compare relative acidity, basicity, reactivity, stability and aromaticity of organic compounds.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO401.1	3	-	-	-	-	-	-	-	-	-	-
CO401.2	3	2	-	2	1	-	-	2	-	-	1
CO401.3	3	2	-	2	1	-	-	2	-	-	1
CO401.4	3	2	-	2	1	-	-	2	-	-	1
CO401.5	3	2	2	2	1	-	-	2	-	-	1
CO401.6	3		2	-	-	-	-	-	-	-	-
Total	18	8	4	8	4	-	-	8	-	-	4
BP401T	3	2	2	2	1	-	-	2	-	-	1

COURSE OUTCOMES

Name of the Course: BP402T Medicinal Chemistry I – Theory

B. Pharm 2nd Year (Semester IV)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO402.1	Define different diseases, Classify the medicinal compounds according to their chemical structure
CO402.2	Describe different types of receptors, their structures, receptors-ligand interactions, mechanism of receptor action and physiochemical properties of drug.
CO402.3	Explain the mode of action, biosynthetic and metabolic pathways of different drug molecules.
CO402.4	Describe adverse effect, contraindications and therapeutic value of drugs.
CO402.5	Apply the principles of organic chemistry to predict the synthesis of drug molecules.
CO402.6	Correlate the relationship between structure and biological activity of drug molecules.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO402.1	3	-	-	2	-	-	-	-	-	-	-
CO402.2	3	-	-	-	-	-	-	-	-	-	1
CO402.3	3	1	2	2	1	-	-	2	-	-	1
CO402.4	3	-	-	2	-	-	-	-	-	-	-
CO402.5	3	1	2	2	1	-	-	2	-	-	1
CO402.6	3	1	2	2	1	-	-	2	-	-	-
Total	18	3	6	8	3	-	-	2	-	-	3
BP401T	3	1	2	2	1	-	-	2	-	-	1

COURSE OUTCOMES

Course Code and Course Title BP403T Physical Pharmaceutics II (Theory)

Class S.Y. B. Pharmacy, Sem.-IV

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO403.1	State the physicochemical properties of drug molecules like micromeritics, rheology, dispersed system, and drug stability.
CO403.2	Describe the concepts of micromeritics, rheology, dispersed system, and drug stability.
CO403.3	Classify various methods for the determination of properties of powder, flow of fluids, dispersed system, and order of reactions.
CO403.4	Apply fundamentals of micromeritics, rheology, dispersed system, and drug stability with development of dosage form.
CO403.5	Relate the physicochemical properties of drugs with development of dosage forms
CO403.6	Justify use of different equipments, methods for the evaluation and techniques for stability of drug and dosage forms.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO403.1	3	2	-	2	1	-	1	2	-	-	2
CO403.2	3	2	-	2	1	-	1	2	-	-	2
CO403.3	3	2	-	2	1	-	1	2	-	-	2
CO403.4	3	-	2	-	-	-	-	-	-	-	2
CO403.5	3	-	2	-	-	-	-	-	-	-	-
CO403.6	3	-	2	-	-	-	-	-	-	-	-
Total	18	6	6	6	3	-	3	6	-	-	8
BP403T	3	2	2	2	1	-	1	2	-	-	2

COURSE OUTCOMES

Name of Course: BP404T Pharmacology I (Theory)

B. Pharm 2nd Year (Semester: IV)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO404.1	Explain the basics related to general pharmacology
CO404.2	Describe the fundamentals of pharmacokinetics and pharmacodynamics
CO404.3	Identify the various adverse drug reactions and drug interactions related to pharmacokinetic and pharmacodynamics properties
CO404.4	Explain the pharmacology of drugs acting on PNS and CNS
CO404.5	Analyse the disease on the basis of its signs and symptoms and suggest the suitable treatments.
CO404.6	Summarize the concepts of drug discovery and development

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO404.1	3	-	-	-	-	-	-	-	1	-	-
CO404.2	3	-	1	-	-	-	-	-	1	-	-
CO404.3	3	1	-	-	1	-	-	2	-	-	-
CO404.4	3	-	1	-	-	-	-	-	-	-	-
CO404.5	3	-	1	-	-	-	-	-	-	-	-
CO404.6	3	-		-	-	-	-	-	-	-	-
Total	18	1	3	-	1	-	-	2	2	-	-
BP404T	3	1	1	-	1	-	-	2	1	-	-

COURSE OUTCOMES

Class S.Y. B. Pharmacy, Sem.-IV

Course Code and Course Title BP405T Pharmacognosy & Phytochemistry I

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO405.1	Illustrate pharmacognosy and related terminologies, linkages of pharmacognosy to various systems of medicine
CO405.2	Explain crude drugs under pharmacognostic scheme, their classification, and quality control methods.
CO405.3	Outline conventional and modern methods of cultivation of drugs of natural origin and their applications.
CO405.4	Compare drugs containing primary & secondary metabolite on the basis of their chemical nature and use.
CO405.5	Distinguish between various methods of quality control of crude drugs.
CO405.6	Compile the detailed information about plants.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO405.1	3	-	2	-	-	-	-	-	-	-	-
CO405.2	3	-	3	-	-	-	-	-	-	-	-
CO405.3	3	-	2	-	-	-	-	-	-	-	-
CO405.4	3	2	3	-	1	-	-	3	-	-	2
CO405.5	3	2	3	-	1	-	-	3	-	-	2
CO405.6	3	2	3	2	2	-	2	2	-	-	2
Total	18	2	16	2	2	-	2	8	-	-	6
BP405T	3	2	2.6	2	2	-	2	2.6	-	-	2

COURSE OUTCOMES

Class S.Y. B. Pharmacy, Sem.-IV

Course Code and Course Title BP406P

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO406.1	Explain reactions, mechanisms involved in the synthesis & analysis of various organic compounds
CO406.2	Explain the physicochemical properties of drugs.
CO406.3	Purify organic compounds using various procedures & its uses
CO406.4	Calculate the percentage yield of synthesised compound
CO406.5	Analyze the purity of medicinal compounds

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO406.1	3	1	-	2	1	-	1	2	-	1	1
CO406.2	3	1	-	2	1	-	1	2	-	-	1
CO406.3	3	1	-	2	1	-	1	2	-	-	1
CO406.4	3	1	2	2	1	-	1	2	-	-	1
CO406.5	3	1	2	2	1	-	1	2	-	1	1
Total	15	5	4	10	5	-	5	10	-	2	5
BP406P	3	1	2	2	1	-	1	2	-	1	1

COURSE OUTCOMES

Class S.Y. B. Pharmacy, Sem.-IV

Course Code and Course Title BP407P Physical Pharmaceutics II–Practical

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO407.1	Explain fundamental concepts of micromeritic properties, viscosity, disperse system, sedimentation volume, and chemical kinetics.
CO407.2	Describe principle, working and applications of basic and advanced techniques, equipments used in determination of micromeritic properties, viscosity, sedimentation volume, and chemical kinetics.
CO407.3	Demonstrate various experiments of micromeritic properties, viscosity, sedimentation volume and chemical kinetics.
CO407.4	Operate different pharmaceutical laboratory instruments used in the determination of micromeritic properties, viscosity, sedimentation volume and chemical kinetics.
CO407.5	Convert mathematical data of experiments of micromeritic properties, viscosity, sedimentation volume and chemical kinetics in graphical way and interpret the same.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO407.1	3	-	-	-	-	-	-	2	-	-	2
CO407.2	3	-	-	-	-	-	-	2	-	-	2
CO407.3	3	2	2	2	-	-	2	2	-	-	2
CO407.4	3	2	2	2	-	-	2	2	-	-	2
CO407.5	3	2	2	2	-	-	2	2	-	-	2
Total	15	6	6	6	-	-	6	10	-	-	10
BP407P	3	2	2	2	-	-	2	2	-	-	1

COURSE OUTCOMES

Name of Course: BP408 P Pharmacology I (Practical)

B. Pharm 2nd Year (Semester: IV)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO408.1	Describe the basic and commonly used instruments for screening of various activities in experimental pharmacology.
CO408.2	Explain commonly used laboratory animals and CPCSEA guidelines for maintenance of experimental animals.
CO408.3	Describe various laboratory techniques used for blood collection, anaesthesia and euthanasia.
CO408.4	Compare different routes of drug administration in rat/ mice
CO408.5	Demonstrate effect of drugs on cilliary motility and rabbit eye.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO408.1	3	-	-	-	-	-	1	-	-	-	-
CO408.2	3	-	-	-	-	-	1	-	-	-	-
CO408.3	3	-	-	-	-	-	1	-	-	-	-
CO408.4	3	-	-	-	-	-	1	-	-	-	-
CO408.5	3	-	-	2	-	-	1	1	-	2	-
Total	15	-	-	2	-	-	5	1	-	2	-
BP408P	3	-	-	2	-	-	1	1	-	2	-

COURSE OUTCOMES

Class S.Y. B. Pharmacy, Sem.-IV

Course Code and Course Title BP409P Pharmacognosy and Phytochemistry I – Practical

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO409.1	Explain various methods for evaluation of crude drugs.
CO409.2	Demonstrate proficiency in handling microscopes, chemicals and other laboratory equipment.
CO409.3	Select appropriate method for evaluation of crude drugs.
CO409.4	Analyse crude drugs on the basis of their physical, chemical, and microscopical features.
CO409.5	Discuss the possible factors affecting quality of crude drugs.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO409.1	3	-	2	-	-	-	-	-	-	-	-
CO409.2	3	2	2	2	-	-	1	2	-	-	2
CO409.3	3	1	3	-	-	-	-	-	-	-	2
CO409.4	3	3	3	2	-	-	2	2	-	-	2
CO409.5	3	-	3	-	-	-	-	2	-	-	-
Total	15	6	13	4	-	-	3	6	-	-	6
BP409P	3	2	2.6	2	-	-	1.5	2	-	-	2

Semester V

COURSE OUTCOMES

Name of Course: BP 501 Medicinal Chemistry-II (Theory) PCI

B. Pharm 3rd Year (Semester: V)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO501.1	Explain different basic terminologies used in medicinal Chemistry.
CO501.2	Classify the medicinal compounds according to their chemical structure & discuss chemistry of different drug molecules.
CO501.3	Explain the mechanism of action & metabolic pathways of drug molecules.
CO501.4	Describe adverse effect, contraindications and therapeutic value of drugs.
CO501.5	Apply the principles of organic chemistry for the synthesis of medicinally important compounds.
CO501.6	Correlate the relationship between structure and biological activity of drug molecules.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO501.1	3	-	-	-	-	-	-	1	-	-	-
CO501.2	3	-	-	-	-	-	-	1	-	-	-
CO501.3	3	-	-	-	-	-	-	1	-	-	-
CO501.4	3	-	-	-	-	-	-	1	-	-	-
CO501.5	3	1	2	2	-	-	-	1	-	-	1
CO501.6	3	1	2	2	-	-	-	1	-	-	1
Total	18	2	4	4	-	-	-	6	-	-	2
BP501T	3	1	2	2	-	-	-	1	-	-	1

COURSE OUTCOMES

Name of Course: BP 502 BP 502 T INDUSTRIAL PHARMACY –I (Theory)

B. Pharm 3rd Year (Semester: V)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO502.1	Relate the various considerations & terminologies in development of pharmaceutical dosage forms& cosmetics.
CO502.2	Describe the physiochemical properties important for formulation of pharmaceutical dosage forms& cosmetics
CO502.3	Explain the pharmaceutical dosage forms, cosmetics & their importance.
CO502.4	Elucidate the principles used in preparation of pharmaceutical dosage forms& cosmetics using established procedures and technology
CO502.5	Distinguish different quality control tests for different dosage forms & their importance.
CO502.6	Interpret formulation data and subsequent analysis data towards choice of the most relevant excipient as per suitable formulation.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO502.1	3	-	-	-	-	-	-	-	-	-	-
CO502.2	3	-	-	-	-	-	-	-	-	-	-
CO502.3	3	-	-	-	-	-	-	-	-	-	-
CO502.4	3	2	-	2	1	-	-	2	-	-	1
CO502.5	3	2	-	2	1	-	-	2	-	-	1
CO502.6	3	2	-	2	1	-	-	2	-	-	1
Total	18	4	-	6	3	-	-	6	-	-	2
BP501T	3	2	-	2	1	-	-	2	-	-	1

COURSE OUTCOMES

Name of Course: BP503T Pharmacology II (Theory)

B. Pharm 3rd Year (Semester: V)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO503.1	Explain the concept, principles and different methods of bioassay.
CO503.2	Describe the biosynthesis, actions, pathological role & uses of different autacoids.
CO503.3	Classify various drugs used in the treatment of inflammation, cardiovascular and endocrine diseases.
CO503.4	Illustrate the mechanism of action of drugs used in the treatment of inflammation, cardiovascular and endocrine diseases.
CO503.5	Identify the dose, contraindications and adverse effects of various drugs used in the treatment of inflammation, cardiovascular and endocrine diseases.
CO503.6	Analyse the disease on the basis of their signs, symptoms and suggest suitable treatment.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO503.1	3	-	-	-	-	-	-	-	-	-	-
CO503.2	3	-	1	-	-	-	-	-	-	-	-
CO503.3	3	-	-	-	-	-	-	-	-	-	-
CO503.4	3	-	1	-	-	-	-	-	-	-	-
CO503.5	3	-	2	-	-	-	1	1	1	-	-
CO503.6	3	-	2	-	-	-	-	-	-	-	-
Total	18	-	6	-	-	-	1	1	1	-	-
BP503T	3	-	1.5	-	-	-	1	1	1	-	-

COURSE OUTCOMES

Name of Course: BP 504T Pharmacognosy and phytochemistry-II (Theory)

B. Pharm 3rd Year (Semester: V)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO504.1	Explain the crude drugs under the pharmacognostic scheme
CO504.2	Outline biosynthetic pathways of primary and secondary metabolites.
CO504.3	Explain the principle and applications of various techniques involved in extraction, isolation, and identification of crude drugs
CO504.4	Summarize the isolation, identification, and analysis of active phytoconstituents present in crude drugs.
CO504.5	Illustrate industrial production and utilization of phytoconstituents.
CO504.6	Distinguish therapeutic as well as commercial application of phytoconstituents mentioned under the syllabus

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO504.1	3	2	-	-	2	-	2	2	-	-	-
CO504.2	3	-	-	-	-	-	-	-	-	-	-
CO504.3	3	-	-	3		-	-	-	-	-	-
CO504.4	3	2	-	3	2	-	2	2	-	-	-
CO504.5	3	2	2	3	2	-	2	2	-	-	-
CO504.6	3	-	2	-	-	-	-	-	-	-	-
Total	18	-	4	9	4	-	4	4	-	-	-
BP504T	3	-	2	3	2	-	2	2	-	-	-

COURSE OUTCOMES

Class T.Y. B. Pharmacy, Sem.-V

Course Code and Course Title BP505T Pharmaceutical Jurisprudence (Theory)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO505.1	State the regulations made under the Drug and Cosmetic Act 1940 for manufacture, import, and export of drugs and cosmetics
CO505.2	State the legislation about Drugs and magic remedies, narcotic drugs, cruelty to animals, and termination of pregnancy.
CO505.3	Explain the details of administrative bodies associated with pharmaceuticals, and pharmacy education and profession in India
CO505.4	Discuss the regulation related to medicinal and toilet preparations, and pharmaceutical's price,
CO505.5	Describe the key elements of pharmaceutical legislation, RTI and IPR in India
CO505.6	Recognise offences related to pharmaceuticals

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO505.1	3	-	-	-	-	1	-	-	3	-	-
CO505.2	3	-	-	-	-	1	-	-	3	-	-
CO505.3	3	-	-	-	-	1	-	-	3	2	-
CO505.4	3	2	-	2	1	1	3	2	3	-	2
CO505.5	3	2	-	-	1	1	3	2	3	-	2
CO505.6	3	-	2	2	-	1	3	-	3	-	-
Total	18	4	2	4	2	6	3	4	18	2	4
BP505T	3	2	2	2	1	1	3	2	3	2	2

COURSE OUTCOMES

Name of Course: BP 506P

B. Pharm 3rd Year (Semester: V)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO506.1	Relate the physicochemical properties of drugs to dosage form characteristics
CO506.2	Prepare formulations of different dosage forms as per the batch formula
CO506.3	Operate different equipment's used in preparation of dosage forms
CO506.4	Perform the preparation and evaluation of tablets, capsules and Injectable formulations.
CO506.5	Develop parenteral ,ophthalmic products and creams with evaluation of glass containers

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO506.1	3	1	-	-	-	-	-	2	-	-	-
CO506.2	3	1	-	2	-	-	-	2	-	-	1
CO506.3	3	1	-	2	-	-	-	2	-	-	-
CO506.4	3	2	2	2	-	-	-	2	-	-	1
CO506.5	3	1	1	2	-	-	-	2	-	-	1
Total	15	6	3	8	-	-	-	10	-	-	3
BP506T	3	1.2	1.5	2	-	-	-	2	-	-	1

COURSE OUTCOMES

Name of Course: BP 507P Pharmacology II (Practical)

B. Pharm 3rd Year (Semester: V)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO507.1	Describe screening methods for analgesic, anti-inflammatory and diuretic activity
CO507.2	Select appropriate physiological salt solution according to isolated tissue.
CO507.3	Apply the appropriate method and procedure to carry out bioassay of various drugs.
CO507.4	Interpret effects of various drugs on frog rectus abdominis muscle, rat ileum, and rabbit jejunum.
CO507.5	Demonstrate various effects of drugs on isolated frog heart, blood pressure and heart rate of dog

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO507.1	3	-	-	-	-	-	1	1	-	-	-
CO507.2	3	-	-	-	-	-	1	1	-	-	-
CO507.3	3	1	2	-	1	-	1	1	-	-	-
CO507.4	3	-	1	1	-	-	1	1	-	-	-
CO507.5	3	-	1	1	-	-	1	1	-	1	-
Total	15	1	4	2	1	-	5	5	-	1	-
BP507P	3	1	1.3	1	1	-	1	1	-	1	-

COURSE OUTCOMES

Name of Course: BP508 P Pharmacognosy and Phytochemistry – II (Practical)

B. Pharm 3rd Year (Semester: V)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO508.1	Explain the drug under pharmacognostic scheme and various techniques for extraction and isolation of crude drug.
CO508.2	Analyse crude drugs on the basis of their physical chemical and microscopical features.
CO508.3	Select appropriate method for separation of phytoconstituents from crude drugs.
CO508.4	Compare various chromatographical techniques.
CO508.5	Discuss various factors affecting on extraction and isolation of phytoconstituents

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO508.1	3	-	-	-	-	-	-	-	-	-	-
CO508.2	3	2	-	1	-	-	1	-	-	-	-
CO508.3	3	1	2	-	-	-	1	-	-	-	-
CO508.4	3	-	2	-	-	-	-	-	-	-	-
CO508.5	3	-	3	-	-	-	-	2	-	-	-
Total	15	3	7	1	-	-	2	2	-	-	-
BP508P	3	1.5	2.3	1	-	-	1	2	-	-	-

Semester VI

COURSE OUTCOMES

Name of Course: BP 601 Medicinal Chemistry-III (Theory) PCI

B. Pharm 4rd Year (Semester: VI)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO601.1	Define different terms and diseases , Classify the medicinal compounds according to their chemical structure
CO601.2	Discuss various approaches and designing of drug molecules including QSAR, Prodrug and Combinatorial chemistry.
CO601.3	Explain the mode of action, metabolic pathways of different drug molecules.
CO601.4	Explain the adverse effect, contraindications and therapeutic value of drugs.
CO601.5	Apply the principles of organic chemistry for the synthesis of drug molecules.
CO601.6	Correlate the relationship between structure and biological activity of drug molecules.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO601.1	3	-	-	2	-	-	-	-	-	-	-
CO601.2	3	1	2	2	-	-	-	-	-	-	-
CO601.3	3	1	-	2	1	-	-	2	-	-	1
CO601.4	3	1	-	-	1	-	-	2	-	-	1
CO601.5	3	-	2	2	-	-	-	-	-	-	-
CO601.6	3	1	2	2	1	-	-	2	-	-	1
Total	18	4	6	10	5	-	-	2	-	-	3
BP601T	3	1	2	2	1	-	-	2	-	-	1

COURSE OUTCOMES

Name of Course: BP 602T Pharmacology III (Theory)

B. Pharm 3rd Year (Semester: VI)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO602.1	Classify various drugs used in the treatment of infectious, respiratory and gastrointestinal tract diseases.
CO602.2	Illustrate the mechanism of action of drugs used in the treatment of infectious, respiratory and gastrointestinal tract diseases.
CO602.3	Identify the dose, contraindications and adverse effects of various drugs used in the treatment of infectious, respiratory and gastrointestinal tract diseases.
CO602.4	Explain the pharmacology and significance of Immunopharmacology and Chronopharmacology.
CO602.5	Describe the management of drug toxicity.
CO602.6	Analyze the disease on the basis of their signs, symptoms and suggest suitable treatment.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO602.1	3	-	-	-	-	-	-	-	-	-	-
CO602.2	3	-	-	-	-	-	-	-	-	-	-
CO602.3	3	-	2	-	-	-	-	-	2	-	-
CO602.4	3	-	2	-	-	-	-	-	1	-	-
CO602.5	3	-	2	-	-	-	-	-	1	-	-
CO602.6	3	-	2	2	-	-	-	-	1	-	-
Total	18	-	8	2	-	-	-	-	5	-	-
BP602T	3	-	2	2	-	-	-	-	1.2	-	-

COURSE OUTCOMES

Name of Course: BP 603 T HERBAL DRUG TECHNOLOGY (Theory)

B. Pharm 3rd Year (Semester: VI)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO603.1	Explain aspects related to obtaining quality herbal products, and herbal drug interactions.
CO603.2	Explain utilisation of herbs in nutraceutical, traditional dosage form, and modern dosage forms
CO603.3	Compare conventional and novel herbal dosage forms, their preparation and evaluation methods
CO603.4	Summarize herbal drug industry, good manufacturing practices for ASU drugs
CO603.5	Distinguish patenting and regulatory requirements of natural products
CO603.6	Conclude on herbal drugs evaluation, manufacturing, and regulatory requirements

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO603.1	3	-	2	-	-	-	-	-	-	2	-
CO603.2	3	-	2	-	-	-	-	-	-	-	-
CO603.3	3	2	3	3	2	-	-	3	-	-	2
CO603.4	3	-	3	-	-	-	-	-	-	-	-
CO603.5	3	-	3	-	-	-	-	-	-	-	-
CO603.6	3	-	3	-	-	-	-	-	-	2	1
Total	15	4	16	3	2	-	-	3	-	4	3
BP603T	3	2	2.8	3	2	-	-	3	-	2	1.5

COURSE OUTCOMES

Name of Course: BP604T Biopharmaceutics and Pharmacokinetics (Theory)

B. Pharm 3rd Year (Semester: VI)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO604.1	Define the basic concepts in Biopharmaceutics and Pharmacokinetics.
CO604.2	Explain major processes and factors involved in drug absorption, distribution, metabolism and excretion.
CO604.3	Explain bioavailability, bioequivalence, pharmaceutical modelling and non-linear pharmacokinetics.
CO604.4	Apply the knowledge of bioavailability and bioequivalence to design BA-BE study protocols.
CO604.5	Analyse various factors influencing bioavailability and pharmacokinetic parameters using compartment modelling and model independent methods.
CO604.6	Evaluate pharmacokinetics of drugs by using drug-protein binding as a tool.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO604.1	3	-	-	-	-	-	-	-	-	-	-
CO604.2	3	1	-	2	1	-	1	2	-	-	-
CO604.3	3	1	-	2	1	-	1	2	-	-	-
CO604.4	3	-	3	2	-	-	-	-	-	-	1
CO604.5	3	-	3	3	-	-	-	-	-	-	-
CO604.6	3	-	3	-	-	-	-	-	-	-	-
Total	18	2	9	9	2	-	2	4	-	-	1
BP604T	3	1	3	2.25	1	-	1	2	-	-	1

COURSE OUTCOMES

Name of Course: BP605T Pharmaceutical Biotechnology

T.Y. B. Pharmacy, Sem.-VI

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO605.1	Explain concept of enzyme biotechnology, protein engineering, genetic engineering, immunity , fermentation & blood product.
CO605.2	Describe methods & techniques used in enzyme biotechnology, protein engineering, genetic engineering, immunity , fermentation & blood product.
CO605.3	Use of knowledge related to enzyme biotechnology, protein engineering, genetic engineering, immunity , fermentation & blood product.
CO605.4	Relate the types of immunity, enzyme biotechnology, hybridoma technology & microbial biotransformation with their application.
CO605.5	Examine the microorganism in fermentation technology, enzyme biotechnology.
CO605.6	Critique on enzyme biotechnology , bacterial vaccines, gene transfer technology & immuno blotting techniques.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO605.1	3	-	2	-	-	-	-	2	-	-	-
CO605.2	3	-	2	-	-	-	-	2	-	-	-
CO605.3	3	-	2	2	-	-	-	2	-	-	-
CO605.4	3	-	2	-	-	-	-	2	-	-	-
CO605.5	3	-	2	2	-	-	-	-	-	-	-
CO605.6	3	-	2	2	-	-	-	2	-	-	-
Total	18	-	12	6	-	-	-	10	-	-	-
BP605T	3	-	2	2	-	-	-	2	-	-	-

COURSE OUTCOMES

Name of Course: BP606T Quality Assurance –Theory

T.Y. B. Pharmacy, Sem.-VI

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO606.1	Define terms related to pharmaceutical quality assurance.
CO606.2	Illustrate good manufacturing practices related to pharmaceuticals.
CO606.3	Describe various recognised guidelines and regulations implemented for safeguarding pharmaceutical's quality.
CO606.4	Summarize various operations carried out in quality control along with good laboratory practice of pharmaceuticals.
CO606.5	Distinguish between analytical instruments calibration and analytical methods validation.
CO606.6	Simplify the recommendations related to complaints and recalling of pharmaceuticals.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO606.1	3	-	-	-	-	-	-	-	-	-	-
CO606.2	3	--	-	-	-	-	-	-	-	-	-
CO606.3	3	-	-	-	-	-	-	-	-	-	-
CO606.4	3	2	2	2	1	-	1	2	-	-	1
CO606.5	3	-	1	1	-	-	-	-	-	-	-
CO606.6	3	2	2	1	-	-	-	3	-	2	1
Total	18	4	5	4	1	-	1	5	-	2	2
BP606T	3	2	1.6	1.3	1	-	1	2.5	-	1	1

COURSE OUTCOMES

Name of Course: BP 607 Medicinal Chemistry-IV (Practical) PCI

B. Pharm 4rd Year (Semester: VIII)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO607.1	Explain reactions, principle, mechanisms involved in the synthesis & analysis of various organic compounds
CO607.2	Explain the physicochemical properties of drugs using drug design software.
CO607.3	Synthesize medicinally important compounds / intermediates by using available resources.
CO607.4	Calculate percentage yield of synthesized medicinal compound.
CO607.5	Analyze the purity of medicinal compounds.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Programme Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO607.1	3	1	-	2	1	-	1	2	-	1	1
CO607.2	3	1	-	2	1	-	1	2	-	-	1
CO607.3	3	1	2	2	1	-	1	2	-	-	1
CO607.4	3	1	2	2	1	-	1	2	-	-	1
CO607.5	3	1	2	-	1	1	1	2	-	1	1
Total	15	5	6	8	10	1	5	10	-	2	5
BP607P	3	1	2	2	2	1	1	2	-	1	1

COURSE OUTCOMES

Name of Course: BP 608P Pharmacology III (Practical)

B. Pharm 3rd Year (Semester: VI)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO608.1	Describe screening methods for antiallergic, antiulcer, hypoglycemic activity, pyrogen testing, acute skin and eye irritation
CO608.2	Apply various methods of biostatistics in experimental pharmacology
CO608.3	Interpret effect of various drugs on gastrointestinal motility, guinea pig ileum and frog intestine
CO608.4	Calculate therapeutic dose, LD50 and pharmacokinetic parameters from given data
CO608.5	Analyze various serum biochemical parameters

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Programme Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO608.1	3	-	-	-	-	-	1	2	-	-	-
CO608.2	3	-	3	3	-	-	1	2	-	-	-
CO608.3	3	-	3	-	-	-	1	2	-	-	-
CO608.4	3	2	3	3	-	-	1	2	-	-	-
CO608.5	3	2	3	3	-	-	1	2	-	-	-
Total	15	4	12	9	-	-	5	10	-	-	-
BP608P	3	2	3	3	-	-	1	2	-	-	-

COURSE OUTCOMES

Name of Course: BP 609 P Herbal Drug Technology (Practical)

B. Pharm 3rd Year (Semester: VI)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO609.1	Explain physico-chemical, microscopical methods of evaluation of herbs, herbal products and herbal preparations
CO609.2	Utilize available raw materials to prepare herbal formulations
CO609.3	Judge the quality of herbal raw material, excipients and formulations
CO609.4	Support/Justify the findings of experiment with possible reasons
CO609.5	Comment on the factors affecting quality of herbal formulation

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Programme Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO609.1	3	-	2	-	-	-	-	2	-	-	
CO609.2	3	2	3	3	-	-	1	2	-	-	
CO609.3	3	-	3	2	-	-	1	2	-	-	
CO609.4	3	-	3	-	-	-	-	2	-	-	1
CO609.5	3	-	2	-	-	-	-	2	-	-	
Total	15	2	13	5	-	-	2	4	-	-	1
BP609P	3	2	3	2.5	-	-	1	2	-	-	1

Semester VII

COURSE OUTCOMES

Name of Course: BP701T Instrumental Methods of Analysis (Theory)

Final Y. B. Pharmacy, Sem.-VII

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO701.1	Recall the basic concepts involved in spectroscopic and chromatographic techniques.
CO701.2	Describe classification, theory, instrumentation and applications of Spectroscopy and chromatographic techniques.
CO701.3	Describe principles, instrumentation and applications of Nephelo turbidometry and electrophoresis.
CO701.4	Illustrate advantages and disadvantages of spectroscopic and chromatographic techniques.
CO701.5	Solve the analytical calculation by using gained knowledge of analytical chemistry.
CO701.6	Analyze the given compound by using appropriate analytical method.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO701.1	3	-	-	-		-	-	-	-	-	-
CO701.2	3	-	-	-		-	-	-	-	-	-
CO701.3	3	2	-	1	2	-	-	2	-	-	2
CO701.4	3	2	-	1	2	-	-	2	-	-	2
CO701.5	3	2	3	1	2	-	-	2	-	-	2
CO701.6	3	-	2	-	-	-	-	-	-	-	-
Total	18	6	5	3	6	-	-	6	-	-	6
BP701T	3	3	2.5	1	2	-	-	2	-	-	2

COURSE OUTCOMES

Name of Course: BP702T Industrial Pharmacy II

Final Y. B. Pharmacy, Sem.-VII

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO702.1	Define regulatory affairs and quality management systems
CO702.2	Explain pilot plant scale-up techniques and technology development
CO702.3	Outline the various guidelines used for scale-up and technology transfer
CO702.4	Describes the regulatory requirements in India and worldwide pharmaceutical approvals
CO702.5	Distinguish different quality management systems used applicable in pharmaceuticals
CO702.6	Compare the guidelines for scale- up and technology transfer, regulatory requirements and quality management systems

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO702.1	3	-	-	-	--	-	-	-	-	-	-
CO702.2	3	1	1	-	-	-	-	-	-	-	-
CO702.3	3	-	1	--	-	-	-	-	-	-	-
CO702.4	3	1	2	2	1	-	-	2	-	-	1
CO702.5	3	1	2	2	1	-	-	2	-	-	1
CO702.6	3	1	2	2	1	-	-	2	-	-	1
Total	18	4	8	6	3	-	-	6	-	-	3
BP702T	3	1	1.60	2	1	-	-	2	-	-	1

COURSE OUTCOMES

Name of Course: BP 703 T PHARMACY PRACTICE (Theory)

B. Pharm 4rd Year (Semester: VII)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO703.1	Define the terms related to hospitals, hospital pharmacy and clinical pharmacy.
CO703.2	Understand the drug distribution system in a hospital and the community pharmacy.
CO703.3	Explain the hospital formulary and therapeutic drug monitoring
CO703.4	Make use of drug distribution methods in hospital and apply it in the practice of pharmacy.
CO703.5	Utilize the knowledge for patient-centered care using the best available facilities and monitor drug therapy of patient through medication chart review, obtain medication history interview and counsel the patients, identify drug related problems (ADRs).
CO703.6	Apply principles of drug store management and inventory control to medication use.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO703.1	3	-	-	-	-	-	-	-	-	-	-
CO703.2	3	-	-	-	-	-	-	-	-	-	-
CO703.3	3	1	-	1	1	1	1	1	2	-	1
CO703.4	3	2	1	1	-	1	1	2	2	-	2
CO703.5	3	-	2	2	1	3	2	2	2	-	3
CO703.6	3	2	1	3	-	2	1	2	3	-	3
Total	18	5	4	7	2	7	5	7	9	-	9
BP703T	3	1.66	1.33	1.75	1	1.75	1.25	1.75	2.25	-	2.25

COURSE OUTCOMES

Name of Course: BP704T Novel Drug Delivery System

F.Y. B. Pharmacy, Sem.-VII

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO704.1	Define Drug delivery system with merits & demerits
CO704.2	Explain principle & properties of different drug delivery systems.
CO704.3	Describe route and methods of drug delivery with its theoretical approach
CO704.4	Use various devices for administration of drug
CO704.5	Compare drug Delivery system with barriers, factor & formulation
CO704.6	Differentiate different drug delivery system with their formulation & theoretical approach

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO704.1	3	-	-	2	-	-	-	2	-	-	-
CO704.2	3	-	-	2	-	-	-	2	-	-	-
CO704.3	3	-	1	2	-	-	-	2	-	-	-
CO704.4	3	-	1	2	-	-	-	2	-	-	-
CO704.5	3	-	1	2	-	-	-	2	-	-	-
CO704.6	3	-	1	2	-	-	-	2	-	-	-
Total	18	-	4	12	-	-	-	12	-	-	-
BP704T	3	-	1	2	-	-	-	2	-	-	-

COURSE OUTCOMES

Name of Course: BP 705 P Instrumental Methods of Analysis (Practical)
B. Pharm Final Year (Semester: VII)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO705.1	Comprehend and explain fundamentals of instrumental analytical techniques.
CO705.2	Identify different pharmaceutical compounds by UV-Spectrophotometry
CO705.3	Estimate different pharmaceutical compounds by calorimetry and fluorimetry
CO705.4	Estimate different elements by flame photometry and Nephelo turbidomet.
CO705.5	Separate different pharmaceutical substances by chromatography.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Programme Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO705.1	3	3	3	3	1	-	3	3	-	-	1
CO705.2	3	3	3	3	1	-	3	3	-	-	1
CO705.3	3	3	3	3	1	-	3	3	-	-	1
CO705.4	3	3	3	3	1	-	3	3	-	-	1
CO705.5	3	3	3	3	1	-	3	3	-	-	1
Total	18	18	18	18	6	-	18	18	-	-	6
BP705P	3	3	3	3	1	-	3	3	-	-	1

COURSE OUTCOMES

Name of Course: BP 706PS Practice school

B. Pharm Final Year (Semester: VII)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO706.1	Explain the knowledge & skills acquired in practice school
CO706.2	Make use of prerequisite knowledge in practice school
CO706.3	Illustrate the observations of practice school
CO706.4	Construct the practice school as per the requirement
CO706.5	Examine the practice school project outputs
CO706.6	Justify the facts involved in practice school

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Programme Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO706.1	3	3	3	3	3	3	3	3	3	3	3
CO706.2	3	3	3	3	3	3	3	3	3	3	3
CO706.3	3	3	3	3	3	3	3	3	3	3	3
CO706.4	3	3	3	3	3	3	3	3	3	3	3
CO706.5	3	3	3	3	3	3	3	3	3	3	3
CO706.6	3	3	3	3	3	3	3	3	3	3	3
Total	18	18	18	18	18	18	18	18	18	18	18
BP706PS	3	3	3	3	3	3	3	3	3	3	3

Semester VIII

COURSE OUTCOMES

Name of Course: BP801T Biostatistics and Research Methodology

Final Y. B. Pharmacy, Sem.-VIII

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO801.1	Outline statistics, biostatistics, descriptive statistics,inferential statistics and their importance in pharmaceutical data processing.
CO801.2	Interpret properties of a population (data) with help of statistical tests.
CO801.3	Describe fundamentals related to research and designing research methodology.
CO801.4	Apply the concepts of factorial design and response surface methodologies.
CO801.5	Make use of measurements like central tendencies, dispersion, correlation, regression, probability.
CO801.6	Distinguish between various statistical analysis tools used in research

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO801.1	3	-	1	-	-	-	-	-	-	-	-
CO801.2	3	1	3	1	1	-	-	2	-	-	2
CO801.3	3	-	1	-	-	-	2	-	-	-	1
CO801.4	3	2	1	1	-	-	-	-	-	-	-
CO801.5	3	2	3	1	1	-	-	2	-	-	2
CO801.6	3	2	1	2	1	-	-	2	-	-	2
Total	18	7	10	5	3	-	2	6	-	-	7
BP801T	3	1.75	1.67	1.25	1	-	2	2	-	-	1.75

COURSE OUTCOMES

Name of Course: BP 802T SOCIAL AND PREVENTIVE PHARMACY (Theory)

B. Pharm 4th Year (Semester: VIII)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO802.1	Explain the concept of prevention and control of disease with socio-cultural factors and its relation with health.
CO802.2	Identify food for nutrition health, balanced diet, deficiencies and its prevention.
CO802.3	Compare avoidable and unavoidable habits for personal hygiene and health.
CO802.4	Explain the principles for the prevention and control of communicable and non-communicable diseases.
CO802.5	Utilize national health program its objectives, functioning and its outcomes for the betterment of society.
CO802.6	Describe community services in rural, urban and school health and functions of PHC.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO802.1	3	-	-	-	-	-	-	-	-	-	-
CO802.2	3	1	-	-	1	-	1	1	2	-	-
CO802.3	3	1	-	-	1	-		1	1	2	-
CO802.4	3	2	-	-	1	1	1	1	1	-	-
CO802.5	3	2	-	-	1	1	1	1	2	-	-
CO802.6	3	2	-	-	1	1	1	1	2	-	-
Total	18	8	-	-	5	3	5	5	9	-	-
BP802T	3	1.6	-	-	1	1	1	1	1.8	-	-

COURSE OUTCOMES

Name of Course: BP 806ET Pharma Marketing Management (Theory)

B. Pharm 4th Year (Semester: VIII)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO806.1	Define marketing, pharmaceutical market, product decisions, promotion, channels of distribution, pricing, emerging concepts in marketing etc.
CO8062	Explain the basic concepts of marketing, pharmaceutical market, product decisions, promotion etc
CO806.3	Classify channels of distribution, PSR, emerging concepts in marketing etc.
CO806.4	Use concept of marketing, pharmaceutical market, product decisions, promotion, channels of distribution, pricing, emerging concepts in marketing to launch new product and maintain the current position of product in the market.
CO806.5	Differentiate marketing and selling, Quantitative and qualitative aspects of market, online promotional techniques for OTC products, Vertical and horizontal marketing, Industrial, global marketing etc
CO806.6	Compare marketing concept, segmentation and targeting, buying behaviour consumer and industrial, marketing channel, methods of promotion and marketing aspects, pricing method and strategies.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO806.1	3	-	1	3	-	-	-	-	-	-	-
CO8062	3	-	1	3	-	-	-	-	-	-	-
CO806.3	3	-	1	3	-	1	1	1	-	-	1
CO806.4	3	2	2	3	3	-	-	1	-	-	-
CO806.5	3	-	2	3	-	-	-	-	-	-	-
CO806.6	3	-	2	3	-	-	-	-	-	-	-
Total	18	2	9	18	3	1	1	2	-	-	1
BP806ET	3	2	1.5	3	3	1	1	1	-	-	1

COURSE OUTCOMES

Name of Course: BP 8011ET Advanced Instrumentation Techniques. (Theory)

B. Pharm 4th Year (Semester: VIII)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO811.1	Explain about the calibration and validation of analytical instruments as per ICH and USFDA guidelines.
CO811.2	State basic principles and instrumentation of NMR, MS, thermal analysis & radioimmuno assay.
CO811.3	Discuss the applications of instruments in drug analysis.
CO811.4	Describe Purification of organic compounds using various instrument techniques.
CO811.5	Compare various methods of analysis and their outcomes.
CO811.6	Distinguish between the different instrument techniques.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO811.1	3	-	-	-	-	-	-	-	-	-	-
CO811.2	3	1	-	2	1	-	-	2	-	-	1
CO811.3	3	1	-	2	1	-	-	2	-	-	1
CO811.4	3	1	-	2	1	-	-	2	-	-	1
CO811.5	3	-	2	-	-	-	-	-	-	-	-
CO811.6	3	-	2	-	-	-	-	-	-	-	-
Total	18	3	4	6	3	-	-	6	-	-	3
BP8011ET	3	1	2	2	1	-	-	2	-	-	1

COURSE OUTCOMES

Name of Course: BP 813PW Project work

B. Pharm 4th Year (Semester: VIII)

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:	
CO813.1	Outline the research or review project
CO8132	Make use of prerequisite knowledge in designing of project
CO813.3	Construct the project work as per the ethical requirement
CO813.4	Analyse the project or review work outputs
CO813.5	Justify the facts involved in project work
CO813.6	Compose the new model for pharmaceutical research.

MAPPING OF COURSE OUTCOMES TO PROGRAM OUTCOMES:

Course Outcomes	Program Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
CO813.1	3	3	3	3	3	3	3	3	3	3	3
CO8132	3	3	3	3	3	3	3	3	3	3	3
CO813.3	3	3	3	3	3	3	3	3	3	3	3
CO813.4	3	3	3	3	3	3	3	3	3	3	3
CO813.5	3	3	3	3	3	3	3	3	3	3	3
CO813.6	3	3	3	3	3	3	3	3	3	3	3
Total	18	18	18	18	18	18	18	18	18	18	18
BP813PW	3	3	3	3	3	3	3	3	3	3	3