

### FINAL YEAR B.PHARMACY COURSE OUTCOMES (2019 PCI Pattern)

Subject Code	Subject	Course Outcome Number	Course Outcome
BP701T	Instrumental Methods of Analysis – Theory	<b>The students will be able to</b>	
		1	Correlate the principles of Ultraviolet, Infrared spectroscopy, Fluorimetry, Flame Photometry, Nephalo turbidimetry, AAS to analyze the drug products.
		2	Explore the appropriate chromatographic separation technique for separation and purification of Drugs
		3	Implement the designed analytical methods for performing quantitative & qualitative analysis of drugs
BP702T	Industrial Pharmacy-II – Theory	<b>The students will be able to</b>	
		1	Understand the process of pilot plant scale up of pharmaceutical dosage forms
		2	Understand the process of technology transfer from lab scale to commercial batch
		3	Know different Laws and Acts that regulates pharmaceutical industry
		4	Understand the approval process and regulatory requirements for drug products
BP703T	Pharmacy Practice – Theory	<b>The students will be able to</b>	
		1	Understand various drug distribution methods in a hospitals, pharmacy stores management and inventory control.
		2	Understand Adverse drug reactions and community pharmacy, drug monitoring, effect of drug on humans.
		3	Understand regulation of pharmacy, different committees, management and drug distribution system.
		4	Understand about clinical pharmacy, preparation and implementation of budget and over the counter medication.

		5	Understand drug store management and inventory control, interpretation of clinical laboratory tests and Investigational use of drugs.
<b>BP704T</b>	Novel Drug Delivery System – Theory	<b>The students will be able to</b>	
		2	Describe, classify and select appropriate Polymers for formulating novel drug delivery system.
		3	Explicate the merits, demerits, formulation technique and applications of microcapsules, mucosal and implantable drug delivery system.
		4	Describe the principle and formulation approaches of Transdermal drug delivery system.
		5	Describe the advantages, disadvantages and approaches for Gastroretentive and Nasopulmonary drug delivery system.
		6	Describe the basic concepts approaches, advantages and disadvantages of targeted, ocular and intrauterine drug delivery system.
<b>BP705P</b>	Instrumental Methods of Analysis – Practical	<b>The students will be able to</b>	
		1	Independently operate spectrometric and chromatographic instruments for identification, separation and analysis of pharmaceuticals.
		2	Analyze test samples, Active Pharmaceutical Ingredients (APIs) and formulations using spectrometric and chromatographic instruments.
		3	Independently process, interpret the data obtained through experimentation and report the results as per regulatory requirements.
<b>BP706 PS</b>	Practice school	<b>The students will be able to</b>	
		1	Handle and operate various sophisticated instruments used in Pharmacy
		2	Formulate and analyze the quality of conventional & novel drug delivery system and herbal formulations
		3	Synthesize characterize and analyze the crude drugs and their intermediates
		4	
		<b>The students will be able to</b>	
		1	Explain various statistical techniques & its calculations like measures of central tendency, measures of dispersion & correlation.
		2	Demonstrate calculation of Regression, probability & parametric test.

<b>BP801T</b>	Biostatistics and Research Methodology – Theory	3	Explain Non Parametric tests, research process, graphical presentations & designing the methodology for research.
		4	Explain Regression modeling, practical components of Industrial and clinical trials problems
		5	Explain Statistical Analysis Using Excel, SPSS, MINITAB®, DESIGN OF EXPERIMENTS, R - Online Statistical Software's to Industrial and Clinical trial approach.
		6	Explain experiments using factorial design & response surface methodology.
<b>BP802T</b>	Social and Preventive Pharmacy – Theory	<b>The students will be able to</b>	
		1	Overview concept of Social and health education
		2	Study principles of Prevention and control of various diseases based on current healthcare development
		3	Facilitate information about various National health programmes, its objectives, functioning and outcome.
		4	Alternative ways of solving problems related to social health and hygiene.
		5	To perform Community services in rural, urban and school health
<b>BP809ET</b>	Cosmetic Science – Theory	<b>The students will be able to</b>	
		1	Explain the concept of cosmeceuticals, history, difference between cosmetics & cosmeceuticals & cosmeceuticals agents.
		2	Know different Laws and Acts that regulate cosmetics
		3	Understand the concepts of cosmetics; anatomy of skin v/s hair, general excipients used in Cosmetics.
		4	Understand the formulation principles of skin care, hair care, oral care products, sun protection and herbal products.
		5	Describe various analytical test for evaluation of cosmetic products
<b>BP811ET</b>	Advanced Instrumentation Techniques – Theory	<b>The students will be able to</b>	
		1	Elucidate the principle involved in operation of advanced analytical instruments and their applications in Pharmaceutical research, quality control of APIs & formulations.
		2	Calibrate the various analytical instruments used for analysis of pharmaceutical dosage forms

		3	Analyze and interpret the structures of analytes present in pharmaceutical dosage form
BP 813 PW	Project work	The students will	
		1	Acquire practical knowledge and skills for performing research projects in laboratory and conducting surveys in the field of pharmaceutical sciences