

PHARM D COURSE OUTCOMES

Course Number & Course Name	CO No	Course Outcome (CO)
PHD10110 Human Anatomy and Physiology-I (Theory)	Upon completion of this course the graduate is able to	
	C10110T1	To demonstrate a foundational understanding of anatomy and physiology by identifying and classifying human tissues
	C10110T2	To analyse the circulatory system by examining components, functions, and interrelations of blood, lymph, and the heart
	C10110T3	To evaluate physiological processes, such as gas exchange and digestion, through an exploration of anatomy and absorption mechanisms.
	C10110T4	To compare and contrast urine formation and the reproductive system, emphasizing their distinct feature
	C10110T5	To analyse the nervous system, endocrine system, and sense organs, emphasizing their anatomy, functions, and interdependencies.
	C10110T6	To apply knowledge of skeletal muscles and sports physiology to evaluate the effects of exercise on muscle physiology and musculoskeletal function.
PHD10210 Pharmaceutics (Theory)	Upon completion of this course the graduate is able to	
	C10210T1	To define dosage forms and tell the basic concepts of Prescription, Posology and Pharmacopoeias
	C10210T2	To understand the calculations, formulation and preparation of different Powders
	C10210T3	To have basic knowledge on Monophasic dosage forms with excipients
	C10210T4	To have fundamentals on Biphasic dosage forms, effectiveness of preparations
	C10210T5	To justify the use of Suppositories as alternative dosage forms and appreciate the use of Galenicals
	C10210T6	To elaborate the types of Incompatibilities and Surgical aids for best health care
PHD10310 Medicinal Biochemistry (Theory)	Upon completion of this course the graduate is able to	
	C10310T1	Understand the importance of metabolism of substrates.
	C10310T2	Acquire chemistry and biological importance of biological macromolecules.
	C10310T3	Acquire knowledge in qualitative and quantitative estimation of the biological macromolecules.
	C10310T4	Know the interpretation of data obtained from a clinical test lab.
	C10310T5	Know how physiological conditions influence the structures and re -activities of biomolecules.
	C10310T6	Understand the basic principles of protein and polysaccharide structure.
	Upon completion of this course the graduate is able to	

PHD10410 Pharmaceutical Organic Chemistry (Theory)	C10410T1	Give systematic names and knowledge on physiochemical properties of simple organic compounds and poly functional group.
	C10410T2	Acquire the knowledge and understanding of the basic mechanisms of saturated organic compounds.
	C10410T3	Acquire the knowledge and understanding of the basic mechanisms of unsaturated organic compounds.
	C10410T4	Gain knowledge on the substituent types and effect of substituents on reactivity and orientation of mono substituted benzene compounds and its derivatives
	C10410T5	Gain knowledge principle, mechanism and applications of named reactions.
	C10410T6	Gain knowledge on oxidation, reduction and uses of various organic compounds.
PHD10510 Pharmaceutical Inorganic Chemistry (Theory)	Upon completion of this course the graduate is able to	
	C10510T1	Well acquainted with the principles of limit tests.
	C10510T2	Understand the principles and procedures of analysis of drugs and also regarding the application of inorganic pharmaceutical.
	C10510T3	Knowledge about the sources of impurities and methods to determine the impurities in inorganic drugs and pharmaceuticals
	C10510T4	Appreciate the importance of inorganic pharmaceuticals in preventing and curing the disease.
	C10510T5	Have been introduced to a variety of inorganic drug classes.
PHD106A10 Remedial Mathematics (Theory)	Upon completion of this course the graduate is able to	
	C106A10T1	Apply the knowledge of partial fractions, logarithms, functions and limits for interpreting the pharmaceutical Problem
	C106A10T2	Understand the theory of matrices and determinant in solving pharmacokinetic equations
	C106A10T3	Understand the applications of matrices and determinant in solving pharmacokinetic equations
	C106A10T4	Interpret the calculations using differential calculus
	C106A10T5	Calculate the slope and other parameters using integrations
	C106A10T6	Integrate the differential equations and Laplace transform
PHD106B10 Remedial Biology (Theory)	Upon completion of this course the graduate is able to	
	C106B10T1	Classify Monera, Protista, Fungi, Animalia and Plantae
	C106B10T2	Understand the cardiovascular, digestive and respiratory systems in the human body
	C106B10T3	Describe the human excretory, nervous, endocrine and reproductive systems
	C106B10T4	Explain the photosynthesis, essential nutrients and nitrogen metabolism in plants

	C106B10T5	Differentiate cells, tissues, cell division
	C106B10T6	Explain the plant respiration and growth
PHD10710 Human Anatomy and Physiology (Practical)	Upon completion of this course the graduate is able to	
	C10710P1	Analyze and compare human tissues (epithelial, muscular, connective, and nervous tissues) critically, distinguishing the structural features of axial and appendicular bones.
	C10710P2	Describe and explain the structure (gross and histology) and functions of major body systems, including cardiovascular, respiratory, digestive, urinary, nervous, special senses, and reproductive systems, utilizing models and charts of the human body.
	C10710P3	Demonstrate proficiency in using laboratory appliances, conducting hematological experiments such as determining white blood cell (WBC) count, red blood cell (RBC) count, and differential count.
	C10710P4	Measure and analyze hematological parameters, including Erythrocyte Sedimentation Rate, hemoglobin content, bleeding time, and clotting time, applying this knowledge to clinical contexts.
	C10710P5	Initiate physiological experiments with a focus on gastrocnemius sciatic nerve preparation, and incorporate the analysis of cardiovascular parameters such as blood pressure, heart rate, and pulse rate.
	C10710P6	Examine and evaluate Family Planning Appliances: Students will examine and assess various family planning appliances, applying their knowledge to evaluate their effectiveness and appropriateness in healthcare contexts.
PHD10810 Pharmaceutics (Practical)	Upon completion of this course the graduate is able to	
	C10810P1	pharmacy profession, different pharmacopeia's, handling of prescription and paediatric dose calculations
	C10810P2	Perform various pharmaceutical calculations and understand about the powders
	C10810P3	Explain about different kinds of monophasic liquid dosage forms
	C10810P4	Outline and summarize different kinds of biphasic liquid dosage forms
	C10810P5	Know about the preparations of Suppositories and pessaries, Galenicals.
	C10810P6	Identify and solve pharmaceutical incompatibilities in prescriptions and understand about Surgical aids
PHD10910 Medicinal Biochemistry (Practical)	Upon completion of this course the graduate is able to	
	C10910P1	Identify the carbohydrates samples by qualitative analysis.
	C10910P2	Identify the proteins and amino acids samples by qualitative analysis.
	C10910P3	Identify the lipids samples by qualitative analysis.

	C10910P4	Analyse, determine and estimate normal and abnormal constituents of urine sample.
	C10910P5	Analyse, determine and estimate normal and abnormal constituents of blood sample.
	C10910P6	Study of the enzymatic hydrolysis and factors affecting enzyme activity.
PHD11010 Pharmaceutical Organic Chemistry Practical	Upon completion of this course the graduate is able to	
	C11010P1	Explain the qualitative analysis and preparation of pharmaceutical organic compounds.
	C11010P2	Identify the extra elements present in the pharmaceutical organic compounds.
	C11010P3	Find the presence of several functional groups in pharmaceutical compounds.
	C11010P4	Perform named reactions by using carbonyl compounds.
	C11010P5	Perform synthesis of compounds by oxidation, reduction and hydrolysis.
	C11010P6	Perform synthesis of compounds by acetylation, diazotization and coupling mechanisms.
PHD11110 Pharmaceutical Inorganic Chemistry (Practical)	Upon completion of this course the graduate is able to	
	C11110P1	Well acquainted with the principles of limit tests.
	C11110P2	Understand the principles and procedures of analysis of drugs and also regarding the application of inorganic pharmaceutical.
	C11110P3	Knowledge about the sources of impurities and methods to determine the impurities in inorganic drugs and pharmaceuticals
	C11110P4	Appreciate the importance of inorganic pharmaceuticals in preventing and curing the disease.
	C11110P5	Have been introduced to a variety of inorganic drug classes.
	C11110P6	Know the analysis of the inorganic pharmaceuticals their applications.
PHD11210 Remedial Biology (Practical)	Upon completion of this course the graduate is able to	
	C11210P1	Handle microscope for scientific examinations
	C11210P2	Describe the anatomy and physiology of frog by using computer models
	C11210P3	Identify bone
	C11210P4	Determine blood groups and blood pressure
	C11210P5	Estimate the tidal volume
	C11210P6	Relate the data and results to pharmacy field
PHD20110 Pathophysiology (Theory)	Upon completion of this course the graduate is able to	
	C20110T1	Understand basic pathophysiology mechanisms
	C20110T2	Describe etiology and pathogenesis of the common disease states
	C20110T3	Gain knowledge of pathology related to pharmacological applications
	C20110T4	Acquire knowledge regarding mechanisms, signs and symptoms of diseases
	C20110T5	Gather applications related to pharmacy

	C20110T6	Describe etiology and pathogenesis of the Infectious diseases
PHD20210 Pharmaceutical Microbiology (Theory)	Upon completion of this course the graduate is able to	
	C20210T1	To define the basics of microorganisms and their identification of key growth parameters
	C20210T2	To explain the concepts of staining techniques
	C20210T3	To explain the principles of sterilization and Disinfection process used in the different fields of science.
	C20210T4	To apply sterility testing for different pharmaceutical products
	C20210T5	to discuss the concepts of immunology and interpolate the same in disease diagnosis
	C20210T6	To analyse the techniques for microbiological assays
PHD20310 Pharmacognosy & Phytopharmaceuticals (Theory)	Upon completion of this course the graduate is able to	
	C20310T1	To outline the history and scope of pharmacognosy, study cell and cell inclusions & to classify crude drugs.
	C20310T2	Summarize the cultivation, collection, processing and storage methods and discuss the role of natural pesticides.
	C20310T3	To interpret the microscopical & powder microscopical details of crude drugs.
	C20310T4	To summarize the crude drug adulteration and explain carbohydrate drugs.
	C20310T5	To understand the significance of natural sources for lipids.
	C20310T6	To explain the importance of oils, proteins and fibres.
PHD20410 pharmacology-I (Theory)	Upon completion of this course the graduate is able to	
	C20410T1	Gain knowledge regarding pharmacokinetics and pharmacodynamics of drugs acting on Human body.
	C20410T2	Understand the pharmacological aspects of drugs acting on ANS
	C20410T3	Evaluate the pharmacological aspects of drugs acting on CVS
	C20410T4	Appreciate the pharmacology of drugs acting on CNS
	C20410T5	Correlate the knowledge therapeutically on Respiratory system.
	C20410T6	Apply the knowledge therapeutically on Endocrine system.
PHD20510 Community Pharmacy (Theory)	Upon completion of this course the graduate is able to	
	C20510T1	To recollect the parts of prescription and study the concepts of pharmaceutical care.
	C20510T2	To understand the scope of community Pharmacy, site selection, space layout, legal requirements and inventory management of community pharmacy.
	C20510T3	To identify the best way of improving medication adherence and to excel in conducting patient counselling.
	C20510T4	To survey the health status of patients in the community by participating on health screening services and to build the ability to manage minor ailments.

	C20510T5	To explain the importance of rational drug therapy, OTC medication counselling and code of ethics to become a competent pharmacist.
	C20510T6	To improve the professional skills about health, balance diet, Family planning, health promotion and prevention of communicable disease in community.
PHD20610 PharmacotherapeuticsI (Theory)	Upon completion of this course the graduate is able to	
	C20610T1	To recall the pathophysiology of cardiovascular disorders and relate their etiology with the therapeutic approach including treatment controversies
	C20610T2	To outline the concept of essential drugs use and rational drug therapy and summarize the choice of drugs with justification in various disease conditions
	C20610T3	To identify various types of respiratory and endocrine disorders with respect to clinical features and laboratory investigations, list their complications along with replacement in their management.
	C20610T4	To distinguish between various disease conditions and analyze the results with drug induced disorders.
	C20610T5	To select the patient-specific parameters relevant in initiating drug therapy, and monitoring therapy among pediatric, Geriatrics, Pregnant and lactating women.
	C20610T6	To develop competency to design individual care plan for ocular disorders.
PHD20710 Pharmaceutical Microbiology (Practical)	Upon completion of this course the graduate is able to	
	C20710P1	To prepare various culture media for the growth of microorganisms
	C20710P2	To identify and isolate different microorganisms
	C20710P3	To select and demonstrate aseptic procedures
	C20710P4	To analyze the test for sterility of different pharmaceutical products
	C20710P5	To evaluate antimicrobials and determine the MIC of antimicrobial agents
	C20710P6	To Estimate the potency of antibiotics and vitamins
PHD20810 Pharmacognosy & Phytopharmaceuticals (practical)	Upon completion of this course the graduate is able to	
	C20810P1	To examine the cell wall constituents and its inclusions.
	C20810P2	To study the morphology of crude drugs.
	C20810P3	To inspect histology of crude drugs.
	C20810P4	To interpret crude drugs by powder microscopy.
	C20810P5	To analyze crude drugs by Qualitative chemical tests.
	C20810P6	To estimate the Quality and purity of lipid sources.
PHD20910 Pharmacology -1 (practical)	Upon completion of this course the graduate is able to	
	C20910P1	Handle animal experiments related to inflammation and stereotypy
	C20910P2	Explain the effect of drugs on isolated tissues
	C20910P3	Perform the experiments to explain the effects of drugs
	C20910P4	Demonstrate experiments related to reproductive system
	C20910P5	Evaluate the role of drugs used in CNS

	C20910P6	Determine the effects of heavy metals and various drugs
PHD21010 PharmacotherapeuticsI(practical)	Upon completion of this course the graduate is able to	
	C21010P1	Define the pathophysiology & management of cardiovascular, Respiratory, Endocrine, Nervous system & Gastroenterology
	C21010P2	Classify the prescription and co relate the clinical manifestations with disease
	C21010P3	Able to develop patient care based assessment skills
	C21010P4	Analyse and monitor drug therapy of patient through prescription
	C21010P5	Continue to develop communication skills
	C21010P6	Provide patient centred care to diverse patient using evidence based medicine.
PHD30110 Pharmacology-II (Theory)	Upon completion of this course the graduate is able to	
	C30110T1	Apply the concepts of pharmacokinetics of various drugs acting on human body on regular day today life.
	C30110T2	Evaluate the pharmacological aspects of drugs acting on ANS
	C30110T3	Analyse the pharmacology of drugs acting on CNS
	C30110T4	Understand the information pertaining to the principles of pharmacodynamics of drugs acting on human body.
	C30110T5	Interpret the actions of Psychoactive drugs and their role in treatment of psychotic patients.
	C30110T6	Remember the concepts of drug addiction, abuse and correlate them with their negative impact on society.
PHD30210 Pharmaceutical Analysis (Theory)	Upon completion of this course the graduate is able to	
	C30210T1	To recall all the regulatory guidelines, fundamental aspects in quality assurance and quality control
	C30210T2	To explain different techniques of separation of drugs and their applications
	C30210T3	To demonstrate modern techniques of separation , instrumentation and their applications
	C30210T4	To distinguish different electrometric methods, instrumentation and applications
	C30210T5	To analyse practical aspects and instrumentation of different spectroscopic techniques and interpretation of spectra
	C30210T6	To elaborate various advanced techniques in spectroscopy and applications
PHD30310 Pharmacotherapeutics II (Theory)	Upon completion of this course the graduate is able to	
	C30310T1	To understand the pathophysiology of infectious diseases and rationale for the drug therapy.
	C30310T2	To identify and monitor the rug therapy in the patients diagnosed with musculoskeletal disorders.
	C30310T3	To discuss and prepare individual therapeutic plan in the management of renal disorders.

	C30310T4	To discuss the controversies in the drug therapy.
	C30310T5	To explain the therapeutic approach in the management of dermatological disorders.
	C30310T6	To identify the clinical manifestations of the disease.
PHD30410 Pharmaceutical Jurisprudence (Theory)	Upon completion of this course the graduate is able to	
	C30410T1	To tell the basic concepts of import, manufacture and conditions for grant of license in different facilities in drug and cosmetics act
	C30410T2	To classify the different schedules and explain sale, labelling. Outline the administration of the act. Describe the government drug analyst and drug inspector
	C30410T3	To identify the different statutory bodies like PCI, state and joint state pharmacy council's. applying the knowledge in construction of in-bond and outside bond
	C30410T4	To list the narcotic drugs and psychotropic substances and categorize different forms of narcotic and psychotropic substances
	C30410T5	To justify the prohibition of advertisements in drugs and magic remedies. Explain the importance of animal ethics. Estimate the price of formulations
	C30410T6	To discuss various pharmaceutical legislations. Elaborate the theory of patents. Create awareness in pharmacist in various fields
PHD30510 Medicinal Chemistry (Theory)	Upon completion of this course the graduate is able to	
	C30510T1	Understand the chemistry of drugs with respect to their biological activity.
	C30510T2	Know the metabolism, adverse effect and therapeutic activity of drugs.
	C30510T3	Understand the different modern techniques of drug design.
	C30510T4	Appreciate the SAR of some important drug classes.
	C30510T5	Acquire knowledge in the chemotherapy for cancer and microbial diseases and different anti-viral agents.
	C30510T6	Have been introduced to a variety of drug classes and some pharmacological properties.
PHD30610 Pharmaceutical Formulations (Theory)	Upon completion of this course the graduate is able to	
	C30610T1	To define and classify various pharmaceutical dosage forms
	C30610T2	To illustrate different types of tablets, tablet excipients and demonstrate production, evaluation of compressed tablets and coated tablets.
	C30610T3	To choose suitable ingredients for the production, filling and evaluation of hard gelatin and soft gelatin capsules
	C30610T4	To simplify formulation and evaluation of liquid oral dosage forms such as pharmaceutical suspensions, emulsions and solutions
	C30610T5	To appraise parenteral products and explain formulation, manufacturing and quality control tests of parenterals and ophthalmic preparations

	C30610T6	To elaborate the concept of controlled and novel drug delivery systems
PHD30710 Pharmacology-II (practical)	Upon completion of this course the graduate is able to	
	C30710P1	Define the basic concepts of experimental pharmacology
	C30710P2	Identify different physiological solutions used in experimental pharmacology
	C30710P3	Calculate the dose and decide the route of administration of drugs
	C30710P4	Design experiments to test the safety and efficacy of experimental drugs
	C30710P5	Execute a bioassay to determine the potency of experimental drugs
	C30710P6	Evaluate the different techniques used in molecular pharmacology
PHD30810 Pharmaceutical Analysis (practical)	Upon completion of this course the graduate is able to	
	C30810P1	To recall the separation and identification of compounds by various chromatographic techniques
	C30810P2	To estimate the concentration of ions by using electrometric methods and nephloturbidometric methods.
	C30810P3	To apply colorimetric method for the quantification of drugs
	C30810P4	To analyse compounds using different UV spectrometry, and interpretation of spectrum using IR spectroscopy
	C30810P5	To handle various spectrometric instruments for the estimation of drugs in the formulation and interpretation of NMR spectra
	C30810P6	To apply pharmacopeia methods for the selected drugs analysis to bridge the gap in the curriculum
PHD30910 Pharmacotherapeutics II (Practical)	Upon completion of this course the graduate is able to	
	C30910P1	Define the pathophysiology & management of cardiovascular, Respiratory, Endocrine, Nervous system & Gastroenterology
	C30910P2	Classify the prescription rationality and co relate the clinical manifestations with disease
	C30910P3	Able to develop patient care based assessment skills
	C30910P4	Analyse and monitor drug therapy of patient through prescription
	C30910P5	Continue to develop communication skills
	C30910P6	Provide patient centred care to diverse patient using evidence based medicine.
PHD31010 Medicinal Chemistry (practical)	Upon completion of this course the graduate is able to	
	C31010P1	To recall the basic requirements for synthesis and assay of drugs
	C31010P2	To explain the techniques involved in isolation and purification of drugs and intermediates
	C31010P3	To synthesize, characterize and purify medicinal compounds and

		intermediates
	C31010P4	To compare the advantages of microwave technique over conventional synthesis of drugs
	C31010P5	To select the tools needed for drawing structures and reactions
	C31010P6	To predict the relation between physicochemical properties and biological activity.
PHD31110 Pharmaceutical Formulations (Practical)	Upon completion of this course the graduate is able to	
	C31110P1	Recall the basic requirements for synthesis and assay of drugs
	C31110P2	Explain the techniques involved in synthesis, isolation, purification of drugs and intermediates
	C31110P3	Evaluate assay of drugs by aqueous titration method
	C31110P4	Evaluate of assay of drugs by non-aqueous titration method
	C31110P5	Analyze the selected drugs present in dosage forms and determine their percentage purity
	C31110P6	Determine the physicochemical property of drugs and draw its importance
PHD40110 Pharmacotherapeutics III (Theory)	Upon completion of this course the graduate is able to	
	C40110T1	Apply their knowledge and understand pathophysiology and pharmacotherapy and to remember the etiopathogenesis and clinical presentation of gastrointestinal and haematological disorders.
	C40110T2	To summarize the diagnosis and therapeutic approach of gastrointestinal and haematological disorders.
	C40110T3	To identify the cause, pathogenesis and clinical manifestation of neurological and psychiatric disorders.
	C40110T4	To simply understand the diagnosis, desired outcomes and management of neurological and psychiatric disorders.
	C40110T5	To explain the physiology and Pain pathway and management of pain, neuralgias and headaches
	C40110T6	To develop skills on EBM practice in disease management to become a “Competent Pharmacist”.
PHD40210 Hospital Pharmacy (Theory)	Upon completion of this course the graduate is able to	
	C40210T1	To define and tell about hospital organization management
	C40210T2	To illustrate and summarize about budget and hospital drug policy
	C40210T3	To identify and utilize different hospital pharmacy services
	C40210T4	To classify and analyse manufacturing of various pharmaceutical preparation
	C40210T5	To explain about various radio pharmaceuticals
	C40210T6	To elaborate the role of professional relations and practices of hospital pharmacy

PHD40310 Clinical Pharmacy (Theory)	Upon completion of this course the graduate is able to	
	C40310T1	To Monitor drug therapy of Patient through medication chart review and Clinical Review
	C40310T2	To Obtain Medication history interview and counsel the patients.
	C40310T3	To Identify and resolve the Drug related Problems
	C40310T4	To Detect, assess and monitor Adverse Drug Reactions.
	C40310T5	To Interpret Selected Laboratory results (as monitoring Parameter in therapeutics) of specific disease conditions
	C40310T6	To Retrieve, Analyse, interpret and formulate drug or medicine information.
PHD40410 Biostatistics & Research Methodology (Theory)	Upon completion of this course the graduate is able to	
	C40410T1	To define basic procedure involved in research methodology.
	C40410T2	To demonstrate the appropriate statistical methods required for a particular research design
	C40410T3	To make use of various available parameters for testing hypothesis
	C40410T4	To classify and learn how to utilize statistical software in research methodology.
	C40410T5	To explain about various statistical methods used in epidemiology.
	C40410T6	To discuss about computer applications in pharmacy.
PHD40510 Biopharmaceutics & Pharmacokinetics (Theory)	Upon completion of this course the graduate is able to	
	C40510T1	To define the drug absorption, mechanisms of drug absorption and interpret various factors affecting drug absorption, distribution, metabolism and elimination of drugs.
	C40510T2	To explain the use of pharmacokinetic models for the determination of pharmacokinetic parameters by compartment models.
	C40510T3	To develop multiple dosage regimens based on pharmacokinetic parameters for maximizing therapeutic effectiveness and patient compliance.
	C40510T4	To analyse various pharmacokinetic parameters for the drugs exhibiting Non-linear pharmacokinetics.
	C40510T5	To determine the basic concepts of Non compartmental pharmacokinetics.
	C40510T6	To estimate the bioavailability of a drug and compare the bioequivalence between formulations.
PHD40610 Clinical Toxicology (Theory)	Upon completion of this course the graduate is able to	
	C40610T1	Explain about the basic understanding of general principles and fundamentals of poisoning
	C40610T2	Demonstrate about the mechanism of action and toxic symptoms produced due to intake of various drugs and pesticides used commonly
	C40610T3	Demonstrate about mechanism of toxicity, toxic symptoms, antidotes and treatment protocols of toxic gases and household chemicals used abundantly.

	C40610T4	Demonstrate about the mechanism of action, clinical symptoms, and management of chronic poisoning with heavy metals
	C40610T5	Discuss about common snake bites, plant and mushroom poisoning harmful for community.
	C40610T6	Determine, identify and continuous learning by pharmacist regarding various abuses and treatment options to improve health of general public
PHD40710 Pharmacotherapeutics III (Practical)	Upon completion of this course the graduate is able to	
	C40710P1	Define the pathophysiology & management of cardiovascular, Respiratory, Endocrine, Nervous system & Gastroenterology
	C40710P2	Classify the prescription rationality and co relate the clinical manifestations with disease
	C40710P3	Able to develop patient care based assessment skills
	C40710P4	Analyse and monitor drug therapy of patient through prescription
	C40710P5	Continue to develop communication skills
	C40710P6	Provide patient centred care to diverse patient using evidence based medicine.
PHD40810 Hospital Pharmacy (Practical)	Upon completion of this course the graduate is able to	
	C40810P1	Know various drug distribution methods
	C40810P2	Know the professional practice management skills in hospital
	C40810P3	Provide Unbiased Drug Information queries, Drug-Drug interactions and drug information services to the health care professionals.
	C40810P4	Know the manufacturing practices of various formulations in hospital set up.
	C40810P5	Appreciate the practice based research methods.
	C40810P6	Appreciate the stores management and inventory control.
PHD40910 Clinical Pharmacy (practical)	Upon completion of this course the graduate is able to	
	C40910P1	To Provide Drug information sources & poison information services to the health care professionals.
	C40910P2	To Perform the medication history interview for the individual patient as a part of Pharmaceutical Care
	C40910P3	To Perform the Patient Counselling for the individual patient as a part of Pharmaceutical Care
	C40910P4	To Detect, assess and monitor & Reporting of Adverse Drug Reactions
	C40910P5	To Identify & Reporting of Drug Related Problems (Drug-Drug Interactions& Pharmacist Interventions& Medication Errors)
	C40910P6	To Interpret Selected Laboratory results (as monitoring Parameter in therapeutics) of specific disease conditions
PHD41010 Biopharmaceutics &	Upon completion of this course the graduate is able to	
	C41010P1	To recall the concepts in biopharmaceutics, basic pharmacokinetic parameters and their significance.

Pharmacokinetics (practical)	C41010P2	To interpret the effect of surfactant, diluents, lubricant and polymorphism on rate of drug dissolution.
	C41010P3	To solve bioavailability parameters of drugs by using plasma data and methods to improve bioavailability.
	C41010P4	To analyse absorption rate constant, K E, biological half-life, mean residence time and mean absorption time for the given data.
	C41010P5	To estimate the extent of protein binding by equilibrium dialysis or dynamic dialysis methods.
	C41010P6	To predict the pharmacokinetic parameters for given data as per one and two compartment models.
	PHD50110 Clinical Research (Theory)	Upon completion of this course the graduate is able to
C50110T1		To find the pharmacological and toxicological activities in process of development of new drugs
C50110T2		To classify the principles and phases in clinical trial of drug
C50110T3		To choose the guidelines of national and international regulatory bodies for clinical trial
C50110T4		To distinguish roles and obligations of the investigator, sponsor and institutional review board
C50110T5		To explain the importance of documents in clinical trial
C50110T6		To design the guidelines for ethics, safety monitoring and management in clinical trial of a drug
PHD50210 Pharmacoepidemiology and Pharmacoeconomics (Theory)	Upon completion of this course the graduate is able to	
	C50210T1	To remember and recall the origin and need; measurement of outcomes in pharmacoepidemiology and pharmacoeconomics
	C50210T2	To understand the various concepts of risk in various pharmacoepidemiology.
	C50210T3	To apply the concepts of pharmacoepidemiological methods in conducting various research studies with the help of case studies and the available soft ware's.
	C50210T4	To distinguish the selected special applications of pharmacoepidemiology & Pharmacoeconomics
	C50210T5	To evaluate the outcome by using various Pharmacoepidemiology & pharmacoeconomic Methods.
	C50210T6	To solve various case studies by applying the concepts of pharmacoepidemiology and pharmacoeconomics in designing a good outcome.
PHD50310 Clinical Pharmacokinetics & Pharmacotherapeutic Drug Monitoring (Theory)	Upon completion of this course the graduate is able to	
	C50310T1	Explain about the basic understanding of Clinical pharmacokinetics.
	C50310T2	Demonstrate about the Design of Dosage regimens
	C50310T3	To discuss about Pharmacokinetics of Drug Interaction
	C50310T4	To explain about Therapeutic Drug Monitoring.
	C50310T5	To discuss about Dosage adjustment in Renal and hepatic Disease.

	C50310T6	To explain about Population Pharmacokinetics and Pharmacogenetics.
PHD50410 Clerkship	Upon completion of this course the graduate is able to	
	C50410C1	Discuss the role of the pharmacist in clinical pharmacy services
	C50410C2	Enlist the various therapeutic alternatives for the management of disease and disorders
	C50410C3	Exhibit the abilities of a clinical pharmacist
	C50410C4	Create a drug treatment strategy for a specific situation
	C50410C5	Recognize, understand and report drug interactions
	C50410C6	Recognize, understand and report medication errors
Project Work	Upon completion of this course the graduate is able to	
	C50510P1	Organize literature review and integrate the objective of the research work
	C50510P2	Attribute resources required to perform the research
	C50510P3	Implement the concepts of experimental procedures
	C50510P4	Illustrate the experimental data by statistical analysis
	C50510P5	Report the findings of the research work
	C50510P6	Conclude the findings of research work