

Year: First year B. Pharm Semester I
Subject Name: Pharmaceutical Chemistry I
Course: 2015 syllabus
Course Code: 1.1.1 T
Course Outcomes:
CO1. Describe the relevance and significance of inorganic chemistry with reference to pharmaceutical sciences.
CO2. Understand monographs of inorganic pharmaceuticals.
CO3. Refer official Pharmacopoeias to detect impurities.
CO4: Review the official electrolytes intended for replacement therapy and maintaining acid-base balance.
CO5: Discuss and apply the physicochemical properties, assay, and uses of inorganic gastrointestinal agents.
CO6: Explain physiological role of essential and trace elements along with deficiency symptoms associated with them.
Year: First year B. Pharm Semester I
Subject Name: Pharmaceutical Chemistry I
Course: 2015 syllabus
Course Code: 1.1.1 P
Course Outcomes:
CO1: Comprehend basic practical terms and concepts used inorganic chemistry.
CO2: Apply the monograph of pharmaceuticals from official compendia.
CO3: Analyze qualitatively samples in a binary mixture.
CO4: Prepare and determine purities of inorganic compounds.
CO5: Identify impurities in pharmaceutical compounds as per Indian pharmacopoeia
CO6: Compute, analyze and record data.
Year Semester: First year B. Pharm Semester I
Subject Name: Pharmaceutical Chemistry II (Organic)
Course: 2015 syllabus
Course Code: 1.1.2 T
Course Outcomes:
CO 1. Understand fundamental concepts of organic chemistry.
CO 2. Apply IUPAC nomenclature in naming organic compounds.
CO 3. Elucidate nucleophilic and electrophilic reaction mechanisms.
CO 4. Conceptualize the basics of stereochemistry.
CO 5. Predict the effect of substituted aromatic ring towards different chemical reactions.
CO6. Describe types of reagents, intermediates, types of mechanisms and theories related to reaction mechanism.
Year Semester: First year B. Pharm Semester I

Subject Name: Pharmaceutical Chemistry II (Organic)
Course: 2015 syllabus
Course Code: 1.1.2 P
Course Outcomes:
CO1. Practice safety measures and inculcate Good Laboratory Practices.
CO2. Identify organic compounds qualitatively.
CO3. Synthesize suitable derivatives of organic compounds.
CO4. Prepare recrystallized derivatives to purify organic compounds.
CO5. Determine melting and boiling points of organic compound and their derivatives.
CO6. Record, compute and analyse the data.
Year Semester: First year B. Pharm Semester I
Subject Name: Modern dispensing pharmacy
Course: 2015 syllabus
Course Code: 1.1.3 T
Course Outcomes:
CO1. Evaluate the prescription for rational drug therapy
CO2. Explain principles of modern dispensing practices
CO3. Recommend patients about pharmaceutical dosage forms
CO4. Compound and dispense dosage forms
CO5. Practice ethics in community pharmacy
CO6. Apply basic principles and calculations in formulation development
Year Semester: First year B. Pharm Semester I
Subject Name: Modern dispensing pharmacy
Course: 2015 syllabus
Course Code: 1.1.3 P
Course Outcomes:
CO1. Interpret prescription.
CO2. Apply skills in compounding and dispensing of pharmaceutical dosage forms
CO3. Counsel the patients for appropriate use of medicines
CO4. Understand the fundamentals of dosage forms
CO5. Maintain patient medication records
CO6. Create patient counselling aids
Year Semester: First year B. Pharm Semester I
Subject Name: Human anatomy and Physiology-I (Theory)
Course: 2015 Syllabus
Course Code: 1.1.4 T
Course Outcomes
CO1: Understand the terminologies related to human anatomy and physiology.

CO2: Describe the structure and functions of various systems of the human body.
CO3: Illustrate the synchronous working of various organs and assess imbalance of homeostasis in diseases.
CO4: Justify modern technologies for evaluating physiological functions.
CO5: Comprehend the common disorders prevalent in the society.
Year Semester: First year B. Pharm Semester I
Subject Name: Human anatomy and Physiology-I (Theory)
Course: 2015 Syllabus
Course Code: 1.1.4 P
Course Outcomes
CO1: Examine blood samples for hematological parameters and correlate with clinical conditions.
CO2: Identify bones and study their anatomy and physiology.
CO3: Classify different joints and understand their functions.
CO4: Demonstrate the measurement of blood pressure by different techniques.
CO5: Explain the anatomy and physiology of various human systems with simulated models.
CO6: Communicate effectively the importance of hematological parameters and healthcare to the society.
Year Semester: First year B. Pharm Semester I
Subject Name: Pharmaceutical Engineering-I
Course: 2015 syllabus
Course Code: 1.1.5T
Course Outcomes
CO1. Explain the pharmaceutical unit operations.
CO2. Select the appropriate process and equipment for pharmaceutical manufacturing.
CO3. Apply engineering technologies in the pharmaceutical manufacturing.
CO4. Understand the importance of industrial hazards.
CO5. Recommend cost effective and eco-friendly methods as per the product requirements.
CO6. Implement various safety precautions in pharmaceutical industries.
Year Semester: First year B. Pharm Semester I
Subject Name: Pharmaceutical Statistics
Course: 2015 syllabus
Course Code: 1.1.6 T
Course Outcomes
CO1. Apply appropriate study design for given data
CO2. Plot graphs of given data and interpret the results.
CO3. Develop problem solving approach by applying probability and bi-variate data analysis
CO4. Examine, organize and analyze pharmaceutical data using different statistical software.
CO5. To apply sampling theory to experimental data
CO6. To determine level of significance in data by applying statistical test.

Year Semester: First year B. Pharm Semester II
Subject Name: Computer Applications in Pharmacy
Course: 2015 syllabus
Course Code: 1.1.7P
Course Outcomes
CO1. Understand the basic components of computer
CO2. Explain the function and fundamental operating systems of computer.
CO3. Apply appropriate software for data processing
CO4. Evaluate the available data in graphical or pictorial manner.
CO5. Design effective presentations using software
CO6. Practice ethical use of internet and electronic communication system
Year Semester: First year B. Pharm Semester II
Subject Name: Pharmaceutical Chemistry III
Course: 2015 syllabus
Course Code: 1.2.1 T
Course Outcomes
CO1. Classify topical agents and describe their mechanism of action along with monographs of official compounds.
CO2. Explain theoretical aspects and applications of pharmaceutical aids.
CO3. Discuss the physicochemical properties, assay, and uses of dental products.
CO4. Understand physiological role of expectorant, emetics, and antidotes.
CO5. Describe properties, handling and uses of inhalants and respiratory stimulants.
CO6. Outline principle, dosimetry and applications of radiopharmaceuticals.
Year Semester: First year B. Pharm Semester II
Subject Name: Pharmaceutical Chemistry III
Course: 2015 syllabus
Course Code: 1.2.1 P
Course Outcomes
CO1. Paraphrase with basic terms and concepts used inorganic chemistry.
CO2. Understand the significance of official standards for drug substance and pharmaceutical aids.
CO3. Analyze qualitatively inorganic samples in a binary mixture.
CO4. Prepare official inorganic compounds.
CO5. Determine purity of inorganic pharmaceuticals.
CO6. Analyse, record and compile data.
Year Semester: First B. Pharm Semester II
Subject Name: Pharmaceutical Chemistry IV (Organic)
Course: 2015 syllabus
Course Code: 1.2.2 TP

Course Outcomes
CO 1. Sketch mechanism of alkene addition reactions.
CO 2. Apply Markovnikov's rule to predict the regioselectivity of alkene addition reactions.
CO 3. Illustrate methodologies for the preparations of aldehydes and ketones.
CO 4. Identify aldehydes and ketone and illustrate their reactions.
CO 5. Understand the classification, mechanism and orientation rules of elimination reactions.
CO6. Describe the chemistry of amines, phenols and carboxylic acids.
Year Semester: First year B. Pharm Semester II
Subject Name: Pharmaceutical Chemistry IV (Organic) (Practical)
Course: 2015 syllabus
Course Code: 1.2.2 P
Course Outcomes
CO 1. Practice the safety measures and inculcate Good Laboratory Practices.
CO 2. Demonstrate important laboratory techniques.
CO 3. Apply suitable techniques to separate organic binary mixture.
CO 4. Prepare recrystallized derivatives to purify organic compounds.
CO 5. Apply qualitative tests for identification of organic compounds.
Year Semester: First year B. Pharm Semester I
Subject Name: Pharmaceutical Biochemistry I
Course: 2015 syllabus
Course Code: 1.2.3 T
Course Outcomes:
CO1. Describe Biochemical Composition of Cell and Structure description of Macro-biomolecules.
CO2. Understand Structure function relationship of biomolecules
CO3. Illustrate protein structure and demonstrate the application of Protein Data Bank in Pharmacy.
CO4. Recognize the importance of carbohydrate and Lipid in biological systems.
CO5. Review biophysical properties and functions of bio-membrane.
CO6. Summarize enzymes as biocatalyst.
Year Semester: First year B. Pharm Semester II
Subject Name: Pharmaceutical Biochemistry I
Course: 2015 syllabus
Course Code: 1.2.3 P
Course Outcomes:
CO1. Develop skills for handling laboratory instruments and biological samples.
CO2. Estimate proteins, sugars and Vitamins.
CO3. Isolate and characterize proteins.
CO4. Describe and evaluate of kinetic parameters and factors affecting enzymatic reaction.
CO5. Describe role of PDB in Pharmacy.

CO6. Compute, analyse and record biochemical data.
Year Semester: First year B. Pharm Semester II
Subject Name: Pharmaceutical Engineering-II
Course: 2015 syllabus
Course Code: 1.2.4 T
Course Outcomes:
CO1. Understand the pharmaceutical unit operations.
CO2. Analyze the selection process and functioning of different equipment's.
CO3. Create the manufacturing knowledge of engineering technology involved in pharmaceuticals.
CO4. Get acquainted with concept and importance of industrial safety.
CO5. Recommend cost effective and eco-friendly methods as per the product requirements.
CO6. Implement various safety precautions in pharmaceutical industries.
Year Semester: First year B. Pharm Semester II
Subject Name: Pharmaceutical engineering-II
Course: 2015 syllabus
Course Code: 1.2.4 P
Course Outcomes
CO1. Demonstrate pharmaceutical unit operations.
CO2. Explain the functioning of pharmaceutical equipment's.
CO3. Select and recommend appropriate pharmaceutical packaging materials.
CO4. Apply the concept of industrial safety.
CO5. Select cost effective process to quality products.
CO6. Comprehend the various safety precautions in pharmaceutical industries.
Year Semester: First year B. Pharm Semester II
Subject Name: Community pharmacy & Hospital pharmacy
Course: 2015 syllabus
Course Code: 1.2.5T
Course Outcomes
CO1. Establish community pharmacy and hospital pharmacy
CO2. Handle and interpret prescriptions
CO3. Implement inventory control and drug distribution system in hospital
CO4. Apply ethical practices for rational drug therapy
CO5. Counsel the patients and provide health screening services
CO6. Promote the role of community pharmacist in the society
Year Semester: First year B. Pharm Semester II
Subject Name: Community pharmacy & Hospital pharmacy
Course: 2015 syllabus

Course Code: 1.2.5 P
Course Outcomes:
CO1. Establish community pharmacy and hospital pharmacy
CO2. Analyze prescription errors and counsel the patients
CO3. Design pharmaceutical counselling aids
CO4. Practice health screening services
CO5. Apply ethical pharmacy practices
CO6. Implement inventory control and drug distribution system in hospital
Year Semester: First year B. Pharm Semester II
Subject Name: Human Anatomy and Physiology-II (Theory)
Course: 2015 syllabus
Course Code: 1.2.6 T
Course Outcomes:
CO1. Describe the structure and functions of various systems of the human body.
CO2. Explain the synchronous working of various organs and assess imbalance of homeostasis in diseases.
CO3. Justify modern technologies for evaluating physiological functions.
CO4. Appreciate the impact of social and environmental factors on body systems.
CO5. Understand the role of various body systems in sports and exercise.
CO6. Communicate effectively to society the importance of exercise in maintaining disease free lifestyle.
Year Semester: First Year B. Pharm Semester II
Subject Name: Human Anatomy and Physiology-II (Practical)
Course: 2015 syllabus
Course Code: 1.2.6 P
Course Outcomes:
CO1. Examine blood samples for haematological parameters and correlate with clinical conditions.
CO2. Describe the histology of various organs and tissues.
CO3. Determine the respiratory volumes and interpret its significance.
CO4. Understand the use and mechanisms of various family planning devices.
CO5. Explain the anatomy and physiology of various human systems with simulated models.
CO6. Effectively communicate the importance of different family planning devices to the society.
Year Semester: Second Year B. Pharm Semester III
Subject Name: Pharmaceutical Organic Chemistry V (Theory)
Course: 2015 syllabus
Course Code: 2.1.1 T
Course Outcomes:
CO 1. Understand the fundamentals of various organic reactions.

CO 2. Explain the significance of stereochemistry in biological action of drugs.
CO 3. Describe reactions mediated by free radicals.
CO 4. Discuss mechanism and stereochemistry involved in certain reactions.
CO 5. Sketch molecular rearrangements in electron deficient reaction system.
CO 6. Recognize migration mechanism of rearrangement reactions in electron rich systems.
Year Semester: Second Year B. Pharm Semester III
Subject Name: Pharmaceutical Organic Chemistry V (Practical)
Course: 2015 syllabus
Course Code: 2.1.1 P
Course Outcomes:
CO 1. Utilize chemical properties of organic compounds for synthesis.
CO 2. Practice safety measures in handling of chemicals.
CO 3. Use analytical tools to detect purity of organic compounds.
CO 4. Plan synthesis of organic compounds.
CO 5. Describe the importance of various analytical parameters of oils and fats.
CO 6. Record, compute and analyse the data.
Year Semester: Second B. Pharm Semester III
Subject Name: Pharm Biochemistry II
Course: 2015 syllabus
Course Code: 2.1.2 T
Course Outcomes
CO1. Understand the basic concepts of quantitative and qualitative analysis.
CO2. Describe theory and applications of aqueous and non-aqueous titrimetric methods to evaluate purity of drugs.
CO3. Explain theoretical aspects of redox titrations and apply the concepts to analyze different drugs quantitatively.
CO4. Understand and apply the principle involved in complexometric titrations for the assay of pharmaceutical inorganic compounds.
CO5. Analyze various compounds based on the precipitation titration
CO6. Compare and compute data using various mathematical tools for quantitative analysis and strategies for minimization of errors.
Year Semester: Second B. Pharm Semester III
Subject Name: Pharm Biochemistry II
Course: 2015 syllabus
Course Code: 2.1.2 P
Course Outcomes
CO1: Understand significance of calibration in analytical chemistry and safety measures for handling reagents.
CO2: Observe, record and analyze the practical aspects of each experiment with developing hands on expertise in titrimetric analysis
CO3: Apply the fundamental principles underlying different titrations for determination of purity of reagents/drugs.

CO4: Describe procedures for preparation and standardization of reagents and analysis of drugs as per Indian Pharmacopoeia
CO5: Correlate physicochemical properties with analytical methods for evaluation of various compounds
CO6: Analyze, record and effectively communicate the experimental data.
Year Semester: Second Year B. Pharm Semester III
Subject Name: Pharmaceutical Analysis I
Course: 2015 syllabus
Course Code: 2.1.3 T
Course Outcomes
CO1: Understand the basic concepts of quantitative and qualitative analysis.
CO2: Describe theory and applications of aqueous and non-aqueous titrimetric methods to evaluate purity of drugs.
CO3: Explain theoretical aspects of redox titrations and apply the concepts to analyze different drugs quantitatively.
CO4: Understand and apply the principle involved in complexometric titrations for the assay of pharmaceutical inorganic compounds.
CO5: Analyze various compounds based on the precipitation titration
CO6: Compare and compute data using various mathematical tools for quantitative analysis and strategies for minimization of errors.
Year Semester: Second Year B. Pharm Semester III
Subject Name: Pharmaceutical Analysis I
Course: 2015 syllabus
Course Code: 2.1.3 P
Course Outcomes
CO1: Understand significance of calibration in analytical chemistry and safety measures for handling reagents.
CO2: Observe, record and analyze the practical aspects of each experiment with developing hands-on expertise in titrimetric analysis
CO3: Apply the fundamental principles underlying different titrations for determination of purity of reagents/drugs.
CO4: Describe procedures for preparation and standardization of reagents and analysis of drugs as per Indian Pharmacopoeia
CO5: Correlate physicochemical properties with analytical methods for evaluation of various compounds
CO6: Analyze, record and effectively communicate the experimental data.
Year Semester: Second year B. Pharm Semester III
Subject Name: Physical Pharmacy I
Course: 2015 syllabus
Course Code: 2.1.4 T
Course Outcomes
CO 1 Understand physicochemical properties of drugs and excipients.
CO 2 Use modern analytical tools to assess physicochemical properties of drugs
CO 3 Relate physicochemical properties of pharmaceuticals for formulation design.
CO 4 Apply principles of chemical kinetics in stability testing and estimation of shelf life of formulations.

CO 5. Justify the role of stable formulations for effective therapeutic outcome.
CO 6. Analyze and tackle problems encountered in formulation development.
Year Semester: Second year B. Pharm Semester III
Subject Name: Physical Pharmacy I (Practical)
Course: 2015 syllabus
Course Code: 2.1.4 P
Course Outcomes
CO1. Evaluate physicochemical properties of drug molecules using modern analytical tools.
CO2. Understand significance of physicochemical properties of pharmaceuticals in formulation development.
CO3. Estimate chemical kinetic parameters.
CO4. Calculate shelf life of pharmaceuticals.
CO5. Compute, analyse and record data.
CO6. Identify and tackle problems encountered in formulation development by working in a team.
Year Semester: Second year B. Pharm Semester III
Subject Name: Pharmaceutical Microbiology I
Course: 2015 syllabus
Course Code: 2.1.5 T
Course Outcomes
CO1. Integrate the basic knowledge of microbiology with pharmaceutical sciences.
CO2. Apply techniques for identification of microorganisms.
CO3. Understand process of sterilization and disinfection
CO4. Implement good laboratory practices in pharmaceutical microbiology.
CO5. Explain the microbial cultivation and isolation techniques.
CO6. Justify the use of microorganisms considering the ecological and ethical issues.
Year Semester: Second year B. Pharm Semester III
Subject Name: Pharmaceutical Microbiology I (PR)
Course: 2015 syllabus
Course Code: 2.1.5 P
Course Outcomes
CO1. Apply sterilization and disinfection techniques in pharmacy.
CO2. Prepare culture media for various microorganisms.
CO3. Isolate and identify microorganisms.
CO4. Assess aseptic conditions in pharmaceutical laboratories as per GLP
CO5. Determine the microbial count using modern analytical tools.
CO6. Compute, analyse and record data.
Year Semester: Second Year B.Pharm Semester III
Subject Name: Pathophysiology

Course: 2015 syllabus
Course Code: 2.1.6 T
Course Outcomes
CO1: Describe the etiopathogenesis of diseases.
CO2: Elucidate the pathological changes, correlate with the clinical course and identify therapeutic targets.
CO3: Summarize the signs and symptoms of diseases.
CO4: Understand the conventional and modern techniques for diagnosis of diseases.
CO5: Interpret the complications of diseases and their implications in society.
CO6: Communicate effectively the measures for prevention of diseases to the society.
Year Semester: Second Year B.Pharm Semester IV
Subject Name: Pharmaceutical Organic Chemistry VI
Course: 2015 syllabus
Course Code: 2.2.1 T
Course Outcomes
CO1: Understand the fundamentals of various organic reactions.
CO2: Discuss the reaction mechanisms
CO3: Describe the chemistry of carbohydrates.
CO4: Review the chemistry of heterocyclic compounds
CO5: Apply rules of disconnection approach for designing the synthesis of organic compounds
CO6: Summarize the chemistry of amino acids and lipids
Year Semester: Second Year B.Pharm Semester IV
Subject Name: Pharmaceutical Organic Chemistry VI
Course: 2015 syllabus
Course Code: 2.2.1 P
Course Outcomes
CO1: Relate chemical properties with synthetic tools for synthesis of organic compounds
CO2: Practice safety measures in handling of chemicals.
CO3: Plan synthesis of organic compounds
CO4: Determine reactive groups quantitatively
CO5: Use analytical tools to detect purity of organic compounds
CO6: Record, analyze and document the results
Year Semester: Second year B. Pharm Semester IV
Subject Name: Pharmaceutical Microbiology II (TH)
Course: 2015 syllabus
Course Code: 2.2.2 T
Course Outcomes
CO1. Understand microbial spoilage in pharmaceutical products.
CO2. Explain the principles of industrial microbiology and fermentation technology.

CO3. Assess pharmaceutical products, antimicrobials and disinfectants using modern analytical tools.
CO4. Review various aspects of immunology and their applications in pharmaceutical sciences.
CO5. Describe the significance of probiotics in pharmacy
CO6. Create social awareness regarding biohazards.
Year Semester: Second year B. Pharm Semester IV
Subject Name: Pharmaceutical Microbiology II
Course Code: 2.2.2 P
Course Outcomes
CO1. Determine efficacy of disinfectants using official tests.
CO2. Investigate efficacy of antibiotics using microbial assays.
CO3. Design microbial evaluation protocols for pharmaceuticals as per pharmacopoeia
CO4. Estimate microbial burden in raw materials.
CO5. Apply practical skills and ethical practices for Bioremediation.
CO6. Compute, analyse and record data.
Year Semester: Second year B. Pharm Semester IV
Subject Name: Pharmaceutical Analysis II (Theory)
Course: 2015 syllabus
Course Code: 2.2.3 T
Course Outcomes
CO1: Use instrumental techniques to determine titrimetric end point.
CO2: Describe the basics of electroanalytical techniques
CO 3: Apply conductometric, polarimetric, refractometric methods for analysis of drug.
CO 4: Understand the advantages of potentiometric and gravimetric techniques in drug analysis.
CO 5: Compare advantages and challenges of various instrumental methods for drug analysis.
CO 6: Construct and analyse different graphical/ mathematical tools for data treatment.
Year Semester: Second year B. Pharm Semester IV
Subject Name: Pharmaceutical Analysis II (Practical)
Course: 2015 syllabus
Course Code: 2.2.3 P
Course Outcomes
CO1: Understand the significance of calibration in analytical chemistry.
CO2: Apply techniques for handling electrochemical equipment's and their calibration.
CO3: Discuss reaction mechanism and principle involved in the electrochemical method of analysis.
CO4: Justify selection criteria for electrochemical analytical method in drug analysis.
CO5: Compute results, create graphs and analyze the effectiveness of the technique.
C 6: Analyze, observe, record experimental data.
Year Semester: Second year B. Pharm Semester IV

Subject Name: Physical Pharmacy II (Theory)
Course: 2015 syllabus
Course Code: 2.2.4 T
Course Outcomes
CO1. Understand physicochemical properties of drugs and excipients.
CO2. Use modern analytical tools to assess physicochemical properties of drugs
CO3. Relate physicochemical properties of pharmaceuticals for formulation design.
CO4. Describe principles of compression and compaction in tablet manufacturing.
CO5. Understand factors governing stability of finished pharmaceutical products.
CO6. Analyze and tackle problems encountered in formulation development.
Year Semester: Second year B. Pharm Semester IV
Subject Name: Physical Pharmacy II
Course: 2015 syllabus
Course Code: 2.2.4 P
Course Outcomes
CO1. Evaluate physicochemical properties of pharmaceuticals using modern analytical tools.
CO2. Understand significance of physicochemical properties of pharmaceuticals in formulation development.
CO3. Apply use of micromeritic properties in design of solid dosage form
CO4. Apply use of derived properties in design of pharmaceutical liquids.
CO5. Compute, analyze and record data.
CO6. Identify and tackle problems encountered in formulation development by working in a team.
Year Semester: Second year B. Pharm Semester IV
Subject Name: Pharmacognosy I
Course: 2015 syllabus
Course Code: 2.2.5 T
Course Outcomes
CO1. Understand the scope of Pharmacognosy.
CO2. Comprehend the relevance of traditional medicines.
CO3. Explain the concepts of cultivation and collection of crude drugs.
CO4. Justify and recommend the methods for processing and storage of crude drugs.
CO5. Describe the biosynthetic pathways of primary and secondary metabolites of the plant.
CO6. Apply the holistic approach of alternative medicines for benefit of society.
Year Semester: Second year B. Pharm Semester IV
Subject Name: Pharmacognosy I
Course: 2015 syllabus
Course Code: 2.2.5 P
Course Outcomes
CO1. Evaluate different plant tissues and their characteristics.

CO2. Characterize the crude drugs on the basis of morphological and microscopical characters
CO3. Analyze crude drugs using chemical tests
CO4. Apply the techniques for extraction of phyto-constituents from crude drugs
CO5. Describe the cultivation and manufacturing process of herbal drugs
CO6. Understand and conduct the survey of marketed herbal products
Year Semester: Second year B. Pharm Semester IV
Subject Name: Pharmacology I
Course: 2015 syllabus
Course Code: 2.2.6 T
Course Outcomes
CO1. Describe the fundamental concepts of pharmacology
CO2. Explain the pharmacological basis of therapeutics.
CO3. Justify the molecular basis of drug action with clinical uses.
CO4. Understand the adverse effects of drugs and drug interactions.
CO5. Apply the pharmacological knowledge in the prevention and treatment of various diseases.
CO6. Communicate measures to minimize adverse drug effects and drug interactions to the society.
Year Semester: Third year B.Pharm Semester V
Subject Name: Medicinal Chemistry I
Course: 2015 syllabus
Course Code: 3.1.1 T
Course Outcomes
CO1. Sketch the structure and name the drugs and their intermediates
CO2. Distinguish different classes of drugs in a particular category
CO3. Describe the mechanism actions of categories of drugs
CO4. Relate influence of substituents on the physico-chemical properties and biological activity of drugs.
CO5. Explain the uses and adverse reactions of drugs belonging to different classes for the benefit of society
CO6. Write the routes of synthesis of drugs.
Year Semester: Third year B.Pharm Semester V
Subject Name: Medicinal Chemistry I
Course: 2015 syllabus
Course Code: 3.1.1 P
Course Outcomes
CO1. Apply principles of organic chemistry for synthesis of drugs and drug intermediates with emphasis on environment and safety.
CO2. Demonstrate TLC techniques for monitoring reactions and checking purity of synthesized compounds.
CO3. Use principles of qualitative analysis for identification and structural confirmation of synthesized compounds.
CO4. Employ the skills for preliminary physico chemical characterization of the synthesized molecules.
CO5. Compute, analyze and record the observations

CO6. Evaluate the need of advancements in the therapy of diseases
Year Semester: Third year B.Pharm Semester V
Subject Name: Pharmaceutical Analysis III
Course: 2015 syllabus
Course Code: 3.1.2 T
Course Outcomes
CO1. Understand the basic concepts of chromatography and its significance.
CO2. Describe the principle, technique and applications of Column chromatography.
CO3. Explain the fundamentals and applications of Paper chromatography.
CO4. Discuss the principle, process and instrumentation of Gas, Ion exchange and Gel permeation chromatography.
CO5. Apply various chromatographic techniques for analysis of pharmaceuticals.
CO6. Develop approaches in solving problems related to chromatographic techniques.
Year Semester: Third year B.Pharm Semester V
Subject Name: Pharmaceutical Analysis III
Course: 2015 syllabus
Course Code: 3.1.2 P
Course Outcomes
CO1. Analyze and identify various samples using Paper chromatography.
CO2. Use Column chromatographic techniques to separate various samples.
CO3. Apply Ion exchange chromatographic technique to separate ionic samples.
CO4. Interpret, evaluate and compare different chromatograms.
CO5. Select the suitable chromatographic technique for analysis of various samples.
CO6. Compute, analyze and record the data.
Year Semester: Third year B.Pharm Semester V
Subject Name: Pharmaceutical Technology I
Course: 2015 syllabus
Course Code: 3.1.3 T
Course Outcomes
CO1. Understand cGMP for large scale manufacturing of pharmaceuticals.
CO2. Design appropriate plant layout for pharmaceutical manufacturing.
CO3. Explain physicochemical, biopharmaceutical and therapeutic aspects for formulation design.
CO4. Describe the IPQC and quality control tests.
CO5. Review evaluation parameters of pharmaceutical dosage forms and cosmeceuticals
CO6. Implement regulatory guidelines and ethical practices in manufacturing.
Year Semester: Third year B.Pharm Semester V
Subject Name: Pharmaceutical Technology I

Course: 2015 syllabus
Course Code: 3.1.3 P
Course Outcomes
CO1. Review of marketed drug products.
CO2. Formulate liquid and semisolid pharmaceuticals and cosmetics.
CO3. Select appropriate manufacturing equipments.
CO4. Evaluate quality of pharmaceuticals and cosmetics.
CO5. Compute, analyze and record data.
CO6. Adapt Good Laboratory Practices.
Year Semester: Third year B.Pharm Semester V
Subject Name: Pharmacology II
Course: 2015 syllabus
Course Code: 3.1.4 T
Course Outcomes:
CO1. Identify drug targets considering pathophysiology of diseases.
CO2. Correlate the molecular basis of drug action with clinical uses.
CO3. Understand the adverse effects and drug interactions.
CO4. Suggest appropriate drug therapy for diseases.
CO5. Compare efficacy, safety and cost-effectiveness of drug therapy.
CO6. Recommend measures for prevention and management of lifestyle diseases.
Year Semester: Third year B.Pharm Semester V
Subject Name: Pharmacology II
Course: 2015 syllabus
Course Code: 3.1.4 P
Course Outcomes:
CO1. Understand the importance of use of animals in drug discovery and development
CO2. Apply ethical principles in animal experimentation.
CO3. Outline the principles and applications of bioassay.
CO4. Justify the need of alternatives to animals and demonstrate computer simulated animal experiments.
CO5. Assess the safety and efficacy profile of drugs using 'Drug Information Softwares'.
CO6. Evaluate prescriptions and recommend treatment protocols for patients.
Year Semester: Third year B.Pharm Semester V
Subject Name: Pharmacognosy II
Course: 2015 syllabus
Course Code: 3.1.5 T
Course Outcomes
CO1. Understand the basics of crude drugs.
CO2. Explain the categories of plant constituents with their characteristics

CO3. Describe pharmacognostic account of important secondary metabolites.
CO4. Review the drugs from marine source.
CO5. Apply modern tools to check adulteration in herbal drugs for industrial utility.
CO6. Create awareness of medicinal uses, drug interactions and toxicities of herbal medicines.
Year Semester: Third year B.Pharm Semester V
Subject Name: Pharmacognosy II
Course: 2015 syllabus
Course Code: 3.1.5 P
Course Outcomes
CO1. Evaluate different plant tissues and their characteristics.
CO2.Characterize the crude drugs on the basis of morphological and microscopical characters
CO3. Analyze crude drugs using chemical tests
CO4. Apply the techniques for extraction of phyto-constituents from crude drugs
CO5. Describe the cultivation and manufacturing process of herbal drugs
CO6. Understand and conduct the survey of marketed herbal products
Year Semester: Third year B.Pharm Semester V
Subject Name: Pharmaceutical Jurisprudence
Course: 2015 syllabus
Course Code: 3.1.6 T
Course Outcomes
CO1. Understand pharmaceutical legislations related to drugs and cosmetics in India.
CO2. Explain the Consumer Protection Act for the benefit of society
CO3. Apply practice of Professional ethics.
CO4. Comprehend the regulatory system for safe and effective medicine.
CO5. Review the role of international drug regulatory agencies.
CO6. Describe the Intellectual Property Rights.
Year Semester: Third year B.Pharm Semester VI
Subject Name: Medicinal Chemistry II
Course: 2015 syllabus
Course Code: 3.2.1 T
Course Outcomes
CO1. Describe the metabolic pathways and understand routes of synthesis of clinically important drugs.
CO2. Categorize different classes of drugs in a particular category
CO3. Describe the mechanism actions of drugs
CO4. Relate influence of structure on biological activity of drugs.
CO5. Explain the uses and adverse reactions of drugs belonging to different classes for the benefit of society
CO6. Write the routes of synthesis of drugs.

Year Semester: Third year B.Pharm Semester VI
Subject Name: Medicinal Chemistry II
Course: 2015 syllabus
Course Code: 3.2.1 P
Course Outcomes
CO1. Apply principles of organic chemistry for synthesis of drugs and drug intermediates with emphasis on environment and safety.
CO2. Demonstrate TLC techniques for monitoring reactions and checking purity of synthesized compounds.
CO3. Apply principles of qualitative analysis for identification and structural confirmation of synthesized compounds.
CO4. Employ the skills for preliminary physico chemical characterization of the synthesized molecules.
CO5. Compute, analyze and record the observations
CO6. Evaluate the need of advancements in the therapy of diseases
Year Semester: Third year B.Pharm Semester VI
Subject Name: Pharmaceutical Analysis IV
Course: 2015 syllabus
Course Code: 3.2.2 T
Course Outcomes
CO1. Understand basics of chromatographic techniques.
CO2. Apply principles of planar chromatographic techniques for analysis of pharmaceuticals.
CO3. Know different methods to identify adulterants present in food items.
CO4. Explain the fundamentals and applications of Column chromatographic techniques.
CO5. Apply various chromatographic techniques for analysis of pharmaceuticals.
CO6. Evaluate and compare the methodologies involved in separation analysis.
Year Semester: Third year B.Pharm Semester VI
Subject Name: Pharmaceutical Analysis IV
Course: 2015 syllabus
Course Code: 3.2.2 P
Course Outcomes
CO1. Correlate principles of separation using chromatographic techniques for qualitative determination of pure drug.
CO2. Analyze various compounds using chromatographic techniques.
CO3. Determine the various adulterants present in food items.
CO4. Interpret, evaluate and compare different chromatograms.
CO5. Understand working of sophisticated chromatographic instruments.
CO6. Compute, analyze and record the data.
Year Semester: Third year B.Pharm Semester VI
Subject Name: Pharmaceutical Technology II

Course: 2015 syllabus
Course Code: 3.2.3 T
Course Outcomes
CO1. Explain concept of formulation of solid dosage forms.
CO2. Describe manufacturing and evaluation of solid dosage forms.
CO3. Understand specialized solid dosage form.
CO4. Select and recommend appropriate packaging for solid dosage form.
CO5. Design layout for manufacturing of solid dosage forms.
CO6. Identify appropriate quality control equipment's for pharmaceuticals.
Year Semester: Third year B. Pharm Semester VI
Subject Name: Pharmaceutical Technology II
Course: 2015 syllabus
Course Code: 3.2.3 P
Course Outcomes
CO1. Review of marketed drug products of various dosage forms.
CO2. Justify the composition, containers, labels, expiry period, economy, acceptance drug Products.
CO3. formulate solid dosage forms and suppositories
CO4. Select appropriate manufacturing equipment's.
CO5. Evaluate quality of solid dosage forms and suppositories
CO6. Adapt Good Laboratory Practices.
Year Semester: Third year B.Pharm Semester VI
Subject Name: Pharmacognosy III
Course: 2015 syllabus
Course Code: 3.2.4 T
Course Outcomes
CO1. Describe the botanical sources, chemical constituents and uses of traditional drugs.
CO2. Understand herbal drug standardization as per WHO guidelines.
CO3. Apply biotechnological techniques to enrich phytoconstituents in medicinal plants.
CO4. Review drugs of mineral origin
CO5. Explain the techniques for extraction of phytoconstituents from medicinal plants.
CO6. Apply use of natural fibers as sutures and surgical dressings
Year Semester: Third year B.Pharm Semester VI
Subject Name: Pharmacognosy III
Course: 2015 syllabus
Course Code: 3.2.4 P
Course Outcomes
CO1. Evaluate different plant tissues and their characteristics.
CO2. Characterize the crude drugs on the basis of morphological and microscopical characters
CO3. Analyze crude drugs using chemical tests

CO4. Apply the techniques for extraction of phyto-constituents from crude drugs
CO5. Describe the cultivation and manufacturing process of herbal drugs
CO6. Understand and conduct the survey of marketed herbal products
Year Semester: Third year B.Pharm Semester VI
Subject Name: Pharmaceutical Biotechnology
Course: 2015 syllabus
Course Code: 3.2.5 P
Course Outcomes
CO1. Recall types, characteristics and origin of DNA, RNAs and genetic code.
CO2. Illustrate techniques involved in DNA manipulation
CO3. Demonstrate recombinant DNA technology and its applications in pharmacy
CO4. Review antigen-antibody reactions and immune responses
CO5. Explain enzyme immobilization techniques and fermentation process
CO6. Develop biotechnological aptitude and values required for self-motivated, lifelong learning and professional development.
Year Semester: Third year B.Pharm Semester VI
Subject Name: Pharmaceutical Biotechnology
Course: 2015 syllabus
Course Code: 3.2.5 T
Course Outcomes
CO1. Characterize DNA and RNA.
CO2. Illustrate techniques involved in DNA manipulation.
CO3. Demonstrate key steps in recombinant DNA technology.
CO4. Analyse DNA amplification in PCR and describe its applications in diagnostics.
CO5. Explain and illustrate enzyme immobilization techniques.
CO6. Design, observe, record, compute, analyse and interpret experimental data.
Year Semester: Third year B.Pharm Semester VI
Subject Name: Pharmacology III
Course: 2015 syllabus
Course Code: 3.2.6 T
Course Outcomes
CO1. Comprehend the molecular basis of drug action.
CO2. Illustrate the clinical uses of drugs.
CO3. Analyze the adverse effects and drug interactions with measures to minimize them.
CO4. Interpret the rationale behind pharmacotherapy of diseases.
CO5. Sensitize the society about judicious use of psychoactive substances and OTC products.
CO6. Integrate and apply the general management of poisoning and drug toxicity.

Year Semester: Final Year B.Pharm Semester VII
Subject Name: Medicinal Chemistry III
Course: 2015 syllabus
Course Code: 4.1.1 T
Course Outcomes
CO1: Understand the principles of chemotherapy
CO2: Sketch the structure and name the drugs and their intermediates
CO3: Distinguish different classes of drugs
CO4: Demonstrate influence of structural modification of drugs on the physic-chemical properties and biological activity.
CO5: Describe the synthesis of important drugs.
CO6: Explain the uses and adverse reactions of drugs belonging to different classes for the benefit of society
Year Semester: Final Year B.Pharm Semester VII
Subject Name: Medicinal Chemistry III
Course: 2015 syllabus
Course Code: 4.1.1 P
Course Outcomes
CO1: Apply principles of organic chemistry for synthesis of drugs and drug intermediates with emphasis on environment and safety.
CO2: Apply principles of qualitative analysis for identification and structural confirmation of synthesized compounds.
CO3: Analyze the drugs as per official monograph
CO4: Interpret IR and UV spectral data
CO5: Compute, analyze and record the observations.
CO6: Justify the advancements in the therapy of diseases
Year Semester: Final year B.Pharm Semester VII
Subject Name: Pharmaceutical Technology III
Course: 2015 syllabus
Course Code: 4.1.2 T
Course Outcomes
CO1. Understand the concept of formulation design of sterile products.
CO2. Design layout for manufacturing sterile dosage form considering enviromental factors
CO3. Recommend appropriate processes and equipment for the manufacturing & packaging of sterile formulations
CO4. Review blood related products
CO5. Assess quality of sterile formulations as per compendial standards using modern analytical tools
CO6. Formulate stable sterile dosage form for mankind.
Year Semester: Final year B.Pharm Semester VII
Subject Name: Pharmaceutical Technology III
Course: 2015 syllabus

Course Code: 4.1.2 P
Course Outcomes
CO1. Apply the concept of biopharmaceutical and therapeutic aspects in formulation design.
CO2. Design layout for manufacturing sterile dosage form considering environmental factors
CO3. Select appropriate process and equipment for the manufacturing & packaging of sterile formulations
CO4. Compute, analyze and record data.
CO5. Formulate and evaluate stable sterile dosage form by working in a team.
CO6. Review regulatory guidelines for environment control.
Year Semester: Final year B.Pharm Semester VII
Subject Name: Biopharmaceutics and Pharmacokinetics
Course: 2015 syllabus
Course Code: 4.1.3 T
Course Outcomes
CO1. Understand the concept of absorption, distribution, metabolism and excretion of drug.
CO2. Calculate pharmacokinetic parameters of drugs.
CO3. Explain the significance of bioavailability in rational drug therapy.
CO4. Design bioavailability-bioequivalence study protocol to establish the quality of generic drugs.
CO5. Describe the role of biopharmaceutics in drug development.
CO6. Explore application of pharmacokinetic principles to special populations.
Year Semester: Final year B.Pharm Semester VII
Subject Name: Biopharmaceutics and Pharmacokinetics
Course: 2015 syllabus
Course Code: 4.1.3 P
Course Outcomes
CO1. Estimate physicochemical parameters of drugs and relate their influence on bioavailability.
CO2. Carry out absorption, distribution, metabolism and excretion studies.
CO3. Determine the bioavailability/bioequivalence parameters.
CO4. Estimate pharmacokinetic parameters of drugs.
CO5. Design bioavailability-bioequivalence study protocol to establish the quality of generic drugs.
CO6. Compute, analyze and record data
Year Semester: Four year B. Pharm Semester VII
Subject Name: Pharmacognosy IV
Course: 2015 syllabus
Course Code: 4.1.4 T
Course Outcomes
CO1. Relate aspects of drug discovery and development from natural products.
CO2. Justify safe use of herbal cosmetics and their formulations.
CO3. Describe the use of natural products as functional excipients and therapeutic agents

CO4. Explain role, importance and regulatory aspects of nutraceuticals.
CO5. Comprehend herbal drug regulatory affairs.
CO6. Apply the concept of pharmacovigilance for herbal drugs.
Year Semester: Four year B. Pharm Semester VII
Subject Name: Pharmacognosy IV
Course: 2015 syllabus
Course Code: 4.1.4 P
Course Outcomes
CO1. Describe the protocols of Herbal Monograph.
CO2. Develop and evaluate Ayurvedic dosage forms and skin and hair care herbal cosmetics.
CO3. Understand the role and importance of Nutraceuticals.
CO4. Apply modern analytical tools to evaluate adulteration in crude drug.
CO5. Design and conduct the survey of marketed herbal products.
CO6. Comprehend modern analytical tools to evaluate adulteration in crude drug.
Year Semester: Final year B.Pharm Semester VII
Subject Name: Pharmaceutical analysis V
Course: 2015 syllabus
Course Code: 4.1.5 T
Course Outcomes
CO1. Comprehend the basic concepts of spectroscopy.
CO2. Understand general components and their functions of spectroscopic instruments.
CO3. Apply fundamentals of UV Visible spectroscopy for Pharmaceutical analysis.
CO4. Elaborate the concept and applications of vibrational spectroscopy
CO5. Interpret UV and IR spectra for structural elucidation
CO6. Explain the principles and applications of emission spectroscopy
Year Semester: Final year B.Pharm Semester VII
Subject Name: Pharmaceutical analysis V
Course: 2015 syllabus
Course Code: 4.1.5 P
Course Outcomes
CO1. Select and apply suitable analytical technique to assess purity and safety of pharmaceuticals for the benefit of society.
CO2. Design protocol for quantitative analysis of drugs and formulations
CO3. Handle analytical instruments
CO4. Interpret UV and IR Spectra
CO5. Apply problem solving approach in pharmaceutical analysis
CO6. Compute, analyze and record data

Year Semester: Final year B.Pharm Semester VII
Subject Name: Clinical Pharmacy
Course: 2015 syllabus
Course Code: 4.1.6 T
Course Outcomes
CO1. Appraise biomedical literature from scientific journals.
CO2. Employ drug use evaluation in a hospital
CO3. Apply patient counselling skills in practice
CO4. Explain drug information to community and all healthcare professionals.
CO5. Assess and report adverse drug reactions.
CO6. Interpret laboratory data with respect to patient's condition
Year Semester: Final Year B.Pharm Semester VII
Subject Name: Soft skills
Course: 2015 syllabus
Course Code: 4.1.7 P
Course Outcomes
CO1: Communicate confidently with a good understanding of people's skills.
CO2: Apply effective writing and listening skills at personal and professional level.
CO3: Acquire knowledge of technical writing skills.
CO4: Illustrate presentation skills.
CO5: Demonstrate self and time management.
CO6: Develop behavioural traits to function effectively in pharmaceutical operations.
Year Semester: Final Year B.Pharm Semester VIII
Subject Name: Medicinal Chemistry IV
Course: 2015 syllabus
Course Code: 4.2.1 T
Course Outcomes
CO1: Understand the principles of drug design and QSAR.
CO2: Sketch out the synthesis of important drugs.
CO3: Correlate structural modification on the drug with biological activity.
CO4: explain the uses and adverse reactions of drugs belonging to different classes for the benefit of society
CO5: Discuss the chemistry and actions of hormones and related drugs
CO6: Explain the principles of combinatorial chemistry and microwave assisted drug synthesis
Year Semester: Final Year B.Pharm Semester VIII
Subject Name: Medicinal Chemistry IV
Course: 2015 Syllabus
Course Code: 4.2.1 P
Course Outcomes

CO1: Apply principles of organic chemistry for synthesis of drugs and drug intermediates with emphasis on environment and safety.
CO2: Apply principles of qualitative analysis for identification and structural confirmation of synthesized compounds.
CO3: Determine physicochemical parameters like partition coefficient, molar refractivity and dissociation constant
CO4: Apply microwave assisted techniques for synthesis of drug and drug intermediates.
CO5: Compute, analyze and record the observations.
CO6: Critique the need of advancements in the therapy of diseases
Year Semester: Final year B.Pharm Semester VIII
Subject Name: Pharmaceutical analysis VI
Course: 2015 syllabus
Course Code: 4.2.2 T
Course Outcomes
CO1. Understand the principles and explore applications of NMR spectroscopy
CO2. Describe the basics of Flame photometry, atomic absorption and Mass spectroscopic techniques and their applications
CO3. Interpret proton NMR and mass spectra
CO4. Summarize the analytical method validation parameters as per ICH guidelines
CO5. Explain the basics and applications of X-ray diffraction and thermal analytical techniques.
CO6. Apply suitable instrumental analytical techniques to assess purity and safety of pharmaceuticals for the benefit of society
Year Semester: Final year B.Pharm Semester VIII
Subject Name: Pharmaceutical analysis practical
Course: 2015 syllabus
Course Code: 4.2.2 P
Course Outcomes
CO1. Select and apply suitable analytical technique to assess purity and safety of pharmaceuticals for the benefit of society.
CO2. Design protocol for quantitative analysis of drugs and formulations
CO3. Handle analytical instruments
CO4. Interpret UV, IR, proton NMR and Mass spectra
CO5. Apply problem solving approach in pharmaceutical analysis
CO6. Compute, analyze and record data
Year Semester: Final year B.Pharm Semester VIII
Subject Name: Pharmaceutical Technology IV (Theory)
Course: 2015 syllabus
Course Code: 4.2.3. T
Course Outcomes
CO1. Understand the concept of Controlled drug delivery systems.
CO2. Design and formulate Novel Drug Delivery Systems.

CO3. Recommend appropriate processes and equipment for manufacturing & packaging of NDDS formulations.
CO4. Review ICH guidelines in dosage form development
CO5. Assess quality of NDDS formulations as per compendial standards using modern analytical tools.
CO6. Review the concept of quality assurance in pharmaceutical products
Year Semester: Final year B.Pharm Semester VIII
Subject Name: Pharmaceutical Technology IV (Practical)
Course: 2015 syllabus
Course Code: 4.2.3 P
Course Outcomes
CO1. Understand the concept of Controlled drug delivery.
CO2. Apply the concept of physicochemical, biopharmaceutical and therapeutic aspects in NDDS formulation design
CO3. Assess quality of CR and IR tablets as per compendial standards using modern analytical tools.
CO4. Design validation protocol for equipments and aseptic area by working in a team.
CO5. Compute, analyze and create study protocol and reports for manufacturing of dosage forms.
CO6. Perform accelerated stability testing of dosage forms.
Year Semester: Final year B.Pharm Semester VIII
Subject Name: Pharmacology IV
Course: 2015 syllabus
Course Code: 4.2.4 T
Course Outcomes
CO1. Understand the mechanism of drug action considering pathophysiology of diseases.
CO2. Comprehend the challenges in development of chemotherapeutic agents.
CO3. Select drugs for the treatment of diseases based on safety, efficacy and cost-effectiveness.
CO4. Plan treatment modalities for special population.
CO5. Recommend rational use of antimicrobial agents.
CO6. Explain various measures for prevention of diseases in the society.
Year Semester: Final year B. Pharm Semester VIII
Subject Name: Pharmacology IV
Course: 2015 syllabus
Course Code: 4.2.4 P
Course Outcomes
CO1. Explain treatment protocols for diseases.
CO 2. Assess risks and benefits for pharmacotherapy of diseases.
CO3. Justify rational and irrational fixed dose combination.
CO 4 Design drug promotional literature.
CO 5. Audit prescriptions and analyse prescription patterns.
CO 6. Demonstrate animal experiments using computer simulation softwares.

Year Semester: Final year semester VIII
Subject Name: Pharmaceutical Management
Course: 2015 syllabus
Course Code: 4.2.5 T
Course Outcomes
CO1. Describe influence of GATT, WTO, Dunkel Text on Pharmacy profession
CO2. Understand Drug development process.
CO3. Explain the concept of ISO standardization and Quality Management System.
CO4. Apply management principles in pharmaceutical production, marketing and sales.
CO5. Explore the basics and applications of IPR in pharmacy
CO6. Practice ethics and inculcate human values in pharma sector
Year Semester: Final year B.Pharm Semester VIII
Subject Name: Pharmacovigilance and Medication safety
Course: 2015 syllabus
Course Code: 4.2.6. T
Course Outcomes
CO1. Classify different ADRs
CO2. Identify ADRs in a patient's clinical profile
CO3. Assess the severity/causality of ADRs
CO4. Analyze preventability of ADRs
CO5. Synthesize ADR reports
CO6. Evaluate medication safety literature
Year Semester: Final Year Sem VIII B.Pharm
Subject Name: Project
Course: 2015 syllabus
Course Code: 4.2.7 P
Course Outcomes
CO1. Understand the principles of research.
CO2. Develop research attitude and aptitude.
CO3. Explore types of references and implement methods of referencing.
CO4. Identify the gaps in research problem and derive methodology for bridging the gaps.
CO5. Learn beyond syllabus and update current advances in the field
CO6. Create scientific documentation with ethics.