



**SUPPLEMENTARY SAR FORMAT
UNDERGRADUATE PHARMACY PROGRAM
FIRST TIME ACCREDITATION
(SUPPLIMENTARY SAR AS PER CAY 2021-2022)**

**ANURADHA COLLEGE OF PHARMACY, (B.PHARM)
ANURADHA NAGAR, SAKEGAON ROAD,
CHIKHLI, DIST. BULDANA
MAHARASHTRA (INDIA)**



(Applicable for all the programs, except those granted full accreditation for 5 years as per Jan 2013 Manual)

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(January, 2016)



CRITERION 3	COURSE OUTCOMES (COS) AND PROGRAM OUTCOMES (POS)	100
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3. Course Outcomes (COs) and Program Outcomes (POs) (100)

3.1 Establish the correlation between the courses and the Program outcomes (20)

(NBA defined Program Outcomes as mentioned in Annexure I)

3.1.1 Course Outcomes (SAR should include course outcomes of one course from

Each semester of study, however, should be prepared for all courses) (05)

Note: Number of Outcomes for a Course is expected to be around 6.

Course Name: Ciii **Year of Study:** YYYY - YY; For ex. C202 **Year of study** 2021-22

Academic Year 2019-20

SEMESTER –I

Course Code: C101 **Sub:** Human Anatomy and Physiology-I (TH)

C101.1	Upon the completion of the course, the student shall be able to explain the basic anatomical terminologies.
C101.2	Describe the structure and functions of various organs of the human body.
C101.3	Describe the various homeostatic mechanisms.
C101.4	Explain the divisions of skeletal system.
C101.5	Explain the composition and function of body fluids.
C101.6	Appreciate coordinated working pattern of different organs of each system.

Course Code: C102 **Sub:** Pharmaceutical Analysis-I (TH)

C102.1	Upon the completion of the course, the student shall be able to Understand the principles of volumetric and electrochemical analysis.
C102.2	Demonstrate complexometric and non-aqueous titration that helps them in Performing practical.
C102.3	Expression of various concentrations and preparations.
C102.4	The course will develop different analytical skills.
C102.5	Understand the qualitative and quantitative estimations of chemical compounds.
C102.6	Differentiate the analytical techniques used in pharmaceuticals about Indian Pharmacopoeia and other reference books.



Course Code: C103 Sub: Pharmaceutics-I (TH)

C103.1	To Know the history of profession of pharmacy
C103.2	To understand the basics of different dosage forms, pharmaceutical incompatibilities and pharmaceutical calculations
C103.3	To understand the professional way of handling the prescription
C103.4	To study the preparation of various conventional dosage forms
C103.5	To study Pharmaceutical incompatibilities.
C103.6	To study the semisolid dosage form in detail.

Course Code: C104 Sub: Pharmaceutical Inorganic Chemistry (TH)

C104.1	Knowledge of the sources of impurities drugs and pharmaceuticals..
C104.2	Understand the methods to determine the impurities in inorganic drugs and pharmaceuticals.
C104.3	Understand the medicinal and pharmaceutical importance of acids, bases and buffers.
C104.4	Appreciate the medicinal and pharmaceutical importance of physiological ions.
C104.5	Knowledge of inorganic gastrointestinal agents and dental products.
C104.6	Understanding importance and applications of radiopharmaceuticals.

Course Code: C105 Sub: Communication Skills (TH)

C105.1	Understand the behavioral needs for a Pharmacist to function effectively in the,
C105.2	Areas of pharmaceutical operation.
C105.3	Communicate effectively (Verbal and Non Verbal).
C105.4	Effectively manage the team as a team player.
C105.5	Develop interview skills.
C105.6	Develop Leadership qualities and essentials

Course Code: C106 Sub: Remedial Biology (TH)

C106.1	Students would have understood the components of living world, structure and functional system of plant and animal kingdom
C106.2	Students would have understood know the classification and salient features of five kingdoms of life
C106.3	Students would have understood understand the basic components of anatomy & physiology of plant
C106.4	Students would have understood know understand the basic components of anatomy & physiology animal with special reference to human
C106.5	Students would have understood They would have understood the cell communication mechanism
C106.6	Students would have understood the Plants and mineral nutrition Photosynthesis Plant growth and development



Course Code: C107 Sub: Human Anatomy and Physiology-I (PR)

C107.1	Upon the completion of the course, the student shall be able to describe the different types of tissues
C107.2	Understand complete bones of human body
C107.3	Study practical aspects of blood
C107.4	Understand the practical aspect of RBC and WBC count
C107.5	Describe the procedure and significance of bleeding and clotting time
C107.6	Know the practical aspects of heart rate and blood pressure

Course Code: C108 Sub: Pharmaceutical Analysis-I (PR)

C108.1	Upon the completion of the course, the student shall be able to Able to apply volumetric analytical techniques for analysis of chemical compounds.
C108.2	Able to apply electrochemical analytical techniques for analysis of chemical compounds.
C108.3	Able to identify and locate the impurities through a different technique like a limit test.
C108.4	The students will be able to apply the use of different reference books for different fundamental techniques of analysis
C108.5	By taking regular viva-voce we can analyze the achievements of practical knowledge.
C108.6	Expected to appraise the general characteristics of the analytical method in drug analysis.

Course Code: C109 Sub: Pharmaceutics-I (PR)

C109.1	To study the various liquid dosage form.(Syrup, Elixir, Solution)
C109.2	To study the various Biphasic dosage form.(Suspension, Emulsion)
C109.3	To study the Powder dosage form.
C109.4	To study the various Internally use formulation.
C109.5	To study the Externally use formulation.
C109.6	To study the suppository.

Course Code: C110 Sub: Pharmaceutical Inorganic Chemistry (PR)

C110.1	Knowledge of the sources of impurities and their detection in drugs and pharmaceuticals..
C110.2	Understand the methods for identification of some important inorganic compounds
C110.3	Understand the medicinal and pharmaceutical importance of acids, bases and buffers.
C110.4	Knowledge of some special test to assess the purity of inorganic compounds.
C110.5	Knowledge of preparation of some inorganic compounds.
C110.6	Appreciate the pharmaceutical applications of inorganic compounds.



Course Code: C111 Sub: Communication Skills (PR)

C111.1	Students will be able to understand and apply knowledge of human communication and language processes as they occur across various contexts.
C111.2	Students will be able to understand and evaluate key practical approaches used in the interdisciplinary field of communication.
C111.3	Students will be able to understand the research methods associated with the study of human communication.
C111.4	Students will be able to find, use, and evaluate primary academic writing associated with the communication discipline.
C111.5	Students will develop knowledge, skills, and judgment around human communication that facilitate their ability to work collaboratively with others.
C111.6	Students will be able to communicate effectively orally and in writing.

Course Code: C112 Sub: Remedial Biology (PR)

C112.1	Students would have understood the Microscopic study and identification of tissues pertinent to Stem, Root Leaf, seed, fruit and flower
C112.2	Students would have observed the general anatomy of root, stem, leaf
C112.3	Students would have observed basis of classification. Salient features of Monera, Protista, Fungi, Animalia and Plantae, Virus,
C112.4	Students would have understood the would have Identification of bones
C112.5	Students would Determination of blood group blood pressure tidal volume
C112.6	Students would have Study of cell and its inclusions

SEMESTER –II**Course Code: C201 Sub: Human Anatomy and Physiology-II (TH)**

C201.1	Explain the gross morphology, structure and functions of various organs of the human body.
C201.2	Describe the various homeostatic mechanisms and their imbalances.
C201.3	Identify the various tissues and organs of different systems of human body.
C201.4	Perform the hematological tests like blood cell counts, haemoglobin estimation, Bleeding /clotting time etc and also record blood pressure, heart rate, pulse and respiratory volume.
C201.5	Appreciate coordinated working pattern of different organs of each system
C201.6	Appreciate the interlinked mechanisms in the maintenance of normal functioning (homeostasis) of human body.



Course Code: C202 Sub: Pharmaceutical Organic Chemistry-I (TH)

C202.1	Understanding the type of isomerism of the organic compound.
C202.2	Ability to write the structure, name of the organic compounds.
C202.3	Understanding of the preparation methods of the organic compounds.
C202.4	Understanding of the reaction, name the reaction and orientation of reactions
C202.5	Understanding of account for reactivity/stability of compounds
C202.6	Understanding of identify/confirm the identification of organic compound

Course Code: C203 Sub: Biochemistry-I (TH)

C203.1	Upon the completion of the course, the student shall be able to learned about chemistry and the biological importance of biological Macromolecule.
C203.2	Understand fundamental principles of biochemistry, including major pathways of Metabolism.
C203.3	Understand biosynthesis, replication transcription, and translation.
C203.4	Explain qualitative and quantitative understanding of biomolecule structure, the enzyme catalyzes a chemical reaction that transforms biomolecule.
C203.5	Explain different types of macromolecule their structure and functions.
C203.6	Explain the metabolism of carbohydrate, lipid, amino acid and their role in our body.

Course Code: C204 Sub: Pathophysiology (TH)

C204.1	Upon the completion of the course, the student shall be able to Describe the etiology of the selected disease states
C204.2	Name the signs and symptoms of the diseases
C204.3	Mention the various diagnostic tests of the diseases
C204.4	Explain the treatment of various diseases
C204.5	Study the pathogenesis of the selected disease states
C204.6	Describe of pathophysiology of different diseases

Course Code: C205 Sub: Computer Application in Pharmacy (TH)

C205.1	Upon the completion of the course, the student shall be able to know the various types of application of computers in pharmacy
C205.2	Student should know the various types of databases.
C205.3	Student should know the various applications of databases in pharmacy
C205.4	Student should know Web technologies like HTML, XML, CSS and Programming languages
C205.5	Student should know Bioinformatics, Databases, Concept of Bioinformatics, Impact of Bioinformatics in Vaccine Discovery
C205.6	Student should know Chromatographic data analysis(CDS), Laboratory Information management System (LIMS) and Text Information Management System(TIMES)



Course Code: C206 Sub: Environmental Science (TH)

C206.1	Upon the completion of the course, the student shall be able to gain in-depth knowledge on natural processes that sustain life, and govern economy.
C206.2	Predict the consequences of human actions on the web of life, global economy and quality of human life.
C206.3	Develop critical thinking for shaping strategies (scientific, social, economic and legal) for environmental protection and conservation of biodiversity, social equity and sustainable development.
C206.4	Acquire values and attitudes towards understanding complex environmental economic social challenge.
C206.5	Participating actively in solving current environmental problems and preventing the future ones.
C206.6	Adopt sustainability as a practice in life, society and industry

Course Code: C207 Sub: Human Anatomy and Physiology-II(PR)

C207.1	To study the integumentary and special senses using specimen, models, etc.,
C207.2	To demonstrate the general neurological examination
C207.3	To examine the different types of taste
C207.4	Study of digestive, respiratory, cardiovascular systems, urinary and reproductive systems with the help of models, charts and specimens.
C207.5	Study of family planning devices and pregnancy diagnosis test.
C207.6	Demonstration of total blood count by cell analyser.

Course Code: C208 Sub: Pharmaceutical Organic Chemistry-I (PR)

C208.1	Understand the test used for detection of aliphatic/aromatic compounds and saturated/unsaturated organic compounds.
C208.2	Knowledge of detection of elements like Nitrogen, Sulphur and Halogen.
C208.3	Understand the detection of Functional group of organic compound.
C208.4	Understand the importance and application of Melting point/Boiling point of organic compounds in qualitative analysis
C208.5	Knowledge of preparation of solid derivatives from organic compounds
C208.6	Able to construct molecular models of organic compounds

Course Code: C209 Sub: Biochemistry(PR)

C209.1	Upon the completion of the course, the student shall be able to Understand the qualitative test for carbohydrates.
C209.2	Understand the qualitative test for protein.
C209.3	Understand the determination of glucose, total cholesterol, and creatinine in the Blood.
C209.4	Determine the salivary amylase activity and effect of temperature on it.
C209.5	Quantitative analysis of reducing sugar and protein.
C209.6	Understand the effects of substrate concentration on salivary amylase activity.



Course Code: C210 Sub: Computer Application in Pharmacy(PR)

C205.1	Upon the completion of the course, the student shall be able to design a questionnaire using a word processing package to gather information about a particular disease.
C205.2	Create a HTML web page to show personal information.
C205.3	Retrieve the information of a drug and its adverse effects using online tools
C205.4	Create a database in MS Access to store the patient information with the required fields Using access
C205.5	Creating and working with queries in MS Access
C205.6	Generating report and printing the report from patient database and Creating invoice table using – MS Access.

SEMESTER –III**Course Code: C301 Sub: Pharmaceutical Organic Chemistry-II (TH)**

C301.1	Understand the introduction, orbital picture, resonance, reactions and effects of substituents of benzene.
C301.2	Explain acidity, effect of substituents, reaction and qualitative test of phenols. Also elucidate basicity, effect of substituents, reaction of aromatic amines
C301.3	Explain acidity, effect of substituents, reaction of Aromatic Acids.
C301.4	Understand the chemistry of fats and oils. And various analytical constants.
C301.5	Knowledge of synthesis, reactions and structure and medicinal uses of some polynuclear hydrocarbons.
C301.6	Understand the theory of cycloalkanes and chemistry of fats and oils.

Course Code: C302 Sub: Physical Pharmaceutics-I (TH)

C302.1	Understand principles involved in solubility of drugs.
C302.2	Understand the states of matter, changes therein & their applications.
C302.3	Appreciate the methods of determination & application of some physicochemical properties.
C302.4	Understand the principles & applications of surface & interfacial phenomenon.
C302.5	Understand the principles & applications of complexation & protein binding.
C302.6	Understand the principles, preparation & applications of buffers & isotonic solutions.

Course Code: C303 Sub: Pharmaceutical Microbiology (TH)

C303.1	Upon the completion of the course, the student shall be able to understand the importance and implementation of sterilization & disinfectant in the pharmaceutical industry.
C303.2	Know the general bacteriology and Understand methods of identification.
C303.3	Understand methods of identification, isolation, cultivation, and preservation of bacteria & viruses.
C303.4	Understand the designing of the aseptic area and various methods of the microbiological assay.
C303.5	Know about microbial spoilage and how to preserve the pharmaceutical product from microbial spoilage.
C303.6	Understand the cell culture technology and its application in the pharmaceutical industry.



Course Code: C304 **Sub: Pharmaceutical Engineering (TH)**

C304.1	To know various unit operations used in Pharmaceutical industries.
C304.2	To understand the material handling techniques
C304.3	To perform various processes involved in pharmaceutical manufacturing process.
C304.4	To carry out various test to prevent environmental pollution.
C304.5	To appreciate and comprehend significance of plant lay out design for optimum use of resources.
C304.6	To appreciate the various preventive methods used for corrosion control in Pharmaceutical industries.

Course Code: C305 **Sub: Pharmaceutical Organic Chemistry-II (PR)**

C305.1	Students should be able to synthesize the various organic compounds and understands the reaction mechanism involved in the synthesis.
C305.2	Students should be able to synthesize the various organic compounds and understands the reaction mechanism involved in the synthesis.
C305.3	Calculate the percentage yields of the products obtained by synthesis.
C305.4	Purify organic compounds using various procedures like recrystallization.
C305.5	Purify organic compounds using steam distillation.
C305.6	Apply recrystallization and steam distillation methods for the purification of synthesized organic compounds.

Course Code: C306 **Sub: Physical Pharmaceutics-I(PR)**

C306.1	Understand practical aspects of solubility of drugs.
C306.2	Understand partition coefficient of some drugs.
C306.3	Understand Surface tension &HLB number.
C306.4	Understand adsorption isotherms.
C306.5	Understand critical micelle concentration of surfactants.
C306.6	Understand some complexes.

Course Code: C307 **Sub: Pharmaceutical Microbiology(PR)**

C307.1	Upon the completion of the course, the student shall be able to Understand perform staining of bacteria.
C307.2	Understand identification of bacteria.
C307.3	Perform Sub culturing of bacteria.
C307.4	Isolate pure cultures of bacteria by various techniques.
C307.5	Perform the microbial assay of antibiotics by various methods.
C307.6	Perform the sterility testing of pharmaceuticals.



Course Code: C308**Sub: Pharmaceutical Engineering(PR)**

C308.1	Understand Construction of drying curves.
C308.2	To determine the radiation constant of brass, iron, unpainted and painted glass.
C308.3	To determine the overall heat transfer coefficient by heat exchanger.
C308.4	To verify the laws of size reduction using ball mill and determining Kicks, Rittinger's, Bond's coefficients, power requirement and critical speed of Ball Mill.
C308.5	To study the effect of time on the Rate of Crystallization.
C308.6	To calculate the uniformity Index for given sample by using Double Cone Blender.

SEMESTER –IV**Course Code: C401****Sub: Pharmaceutical Organic Chemistry-III (TH)**

C401.1	To understand methods of preparation of organic compounds.
C401.2	To understand properties of organic compounds.
C401.3	Explain stereo chemical aspects of organic compounds.
C401.4	Explain stereo chemical reactions of organic compounds.
C401.5	To know medicinal uses of organic compounds.
C401.6	To know other applications of organic compounds.

Course Code: C402**Sub: Medicinal Chemistry-I (TH)**

C402.1	To Gain fundamental knowledge on the structure, chemistry and therapeutic value of drugs.
C402.2	To study Structure activity relationships of drugs
C402.3	Importance of physicochemical properties and metabolism of drugs
C402.4	Understand the chemistry of drugs with respect to their pharmacological activity
C402.5	Study the drug metabolic pathways, adverse effect and therapeutic value of drugs
C402.6	Student Should draw chemical synthesis of drugs.



Course Code: C403 Sub: Physical Pharmaceutics-II (TH)

C403.1	Understand the colloidal dispersions & their properties.
C403.2	Understand the principles of rheology & their pharmaceutical applications with respect to flow of fluids.
C403.3	Understand the principles of rheology & their pharmaceutical applications with respect to deformation of solids.
C403.4	Study coarse dispersions, their formulation & stability aspects.
C403.5	Study the principles of micromeritics & their pharmaceutical applications.
C403.6	Understand the principles of chemical kinetics & use them for stability testing and determination of expiry date of formulations.

Course Code: C404 Sub: Pharmacology-I (TH)

C404.1	Students would have understood the pharmacological actions of different categories of drugs.
C404.2	They would have studied in detailed about mechanism of drug action at organ system/sub cellular/macromolecular levels.
C404.3	They would have understood the application of basic pharmacological knowledge in the prevention and treatment of various diseases
C404.4	They would have understood the signal transduction mechanism of various receptors
C404.5	Students would have understood Drug discovery and clinical evaluation of new drugs.
C404.6	Students would got an idea about Pharmacology of drugs acting on peripheral nervous system and CNS.

Course Code: C405 Sub: Pharmacognosy and Phytochemistry-I (TH)

C405.1	To know the techniques in the cultivation and production of crude drugs
C405.2	To know the crude drugs, their uses and chemical nature
C405.3	To know the evaluation techniques for the herbal drugs
C405.4	To carry out the microscopic and morphological evaluation of crude drugs
C405.5	To know the Plant tissue culture techniques and their applications
C405.6	To know the different systems of medicines and plant products, primary and secondary metabolites.

Course Code: C406 Sub: Medicinal Chemistry-I (PR)

C406.1	Study of different Preparation of drugs/ intermediates
C406.2	Study of different Assay of drugs
C406.3	To study Determination of Partition coefficient
C406.4	To determine the percentage purity of drug .
C406.5	Synthesis of drug by Microwave oven.
C406.6	Synthesis of drug by conventional method



Course Code: C407**Sub: Physical Pharmaceutics-II(PR)**

C407.1	Study the micromeritic properties of pharmaceutical samples.
C407.2	Understand viscosity of pharmaceuticals using different viscometers.
C407.3	Study the effect of formulative variables on properties of coarse dispersions.
C407.4	Study of reaction rate constants.
C407.5	Understand derived properties of pharmaceutical samples.
C407.6	Appreciate the importance of accelerated stability studies.

Course Code: C408 Sub: Pharmacognosy and Phytochemistry-I(PR)

C408.1	To study the analysis of crude drugs by chemical tests.
C408.2	To determine the various leaf constant of crude drugs.
C408.3	To determine of number of starch grains by Lycopodium spore method
C408.4	To determine of Extractive values & Ash value of crude drugs.
C408.5	To determine of moisture content of crude drugs.
C408.6	To determine of swelling index and foaming.

Course Code: C408**Sub: Pharmacology-I (PR)**

C408.1	Students would Introduced to experimental pharmacology , Commonly used instruments and common laboratory animals in experimental pharmacology
C408.2	Students would have observed the effect of drugs on animals by simulated experiments.
C408.3	Students would got an idea about correlation of pharmacology with other bio medical sciences.
C408.4	Students would be trained with Common laboratory techniques. Blood withdrawal, serum and plasma separation, anesthetics and euthanasia used for animal studies.
C408.5	Students would got an idea about different routes of drugs administration.
C408.6	Students would have study about various animal models used for ANS and CNS studies.

SEMESTER –V**Course Code: C501****Sub: Medicinal Chemistry-II (TH)**

C501.1	To impart fundamental knowledge on the structure, chemistry and therapeutic value of drugs
C501.2	To understand the chemistry of drugs with respect to their pharmacological activity
C501.3	To understand the Mechanism of action of structure on different receptor or non-receptor
C501.4	To understand the drug metabolic pathways, adverse effect and side effect of drugs
C501.5	To know the Structural Activity Relationship of different class of drugs with respective of its structure
C501.6	To study the chemical synthesis of selected drugs by chemical reactions involved in it



Course Code: C502

Sub: Industrial Pharmacy-I (TH)

C502.1	Know the various pharmaceutical dosage forms and their manufacturing techniques.
C502.2	Know various considerations in development of pharmaceutical dosage forms.
C502.3	Formulate solid, liquid and semisolid dosage forms and evaluate them for their quality.
C502.4	Explain types, advantages and limitations, pre-formulation factors, production procedure, and quality control tests of parenteral products.
C502.5	Understand the various cosmetic dosage forms like lipsticks, shampoos, cold cream and vanishing cream, tooth pastes, hair dyes and sunscreens.
C502.6	Explain materials used for packaging of pharmaceutical products.

Course Code: C503

Sub: Pharmacology-II (TH)

C503.1	Students would have understood the classification of drugs acting on different systems of body.
C503.2	Students would have understood the mechanism of drug action and its relevance in the treatment of different diseases
C503.3	Students would have understood the therapeutic effects, clinical uses, side effects and contraindications of drug acting on different systems of body
C503.4	They would appreciate the newer targets of several disease conditions for treatment.
C503.5	They would have understood the cell communication mechanism
C503.6	Students would have understood the Addition, emphasis on the basic concepts of bioassay.

Course Code: C504

Sub: Pharmacognosy and Phytochemistry-II (TH)

C 504.1	To know the modern extraction techniques, characterization and identification of the herbal drugs and phytoconstituents
C 504.2	To understand the preparation and development of herbal formulation.
C 504.3	To understand the herbal drug interactions
C 504.4	To carryout isolation and identification of phyto-constituents
C 504.5	To understand application of latest techniques likes spectroscopy, chromatography and electrophoresis
C 504.6	To know the metabolic pathways in higher plants and their determination



Course Code: C505**Sub: Pharmaceutical Jurisprudence (TH)**

C505.1	To Understand basic knowledge on important legislations related to the profession of pharmacy in India.
C505.2	To Understand Various Indian pharmaceutical Acts and Laws
C505.3	To Understand the regulatory authorities and agencies governing the manufacture and sale of pharmaceuticals
C505.4	To Understand the code of ethics during the pharmaceutical practice
C505.5	To Understand Basic Knowledge about Intellectual property rights
C505.6	To Understand the Pharmaceutical legislations and their implications in the development and marketing of pharmaceuticals

Course Code: C506 Sub: Industrial Pharmacy-I (PR)

C506.1	Pre-formulation studies on paracetamol/aspirin/or any other drug.
C506.2	Prepare and evaluate paracetamol tablets.
C506.3	Prepare and evaluate aspirin tablets.
C506.4	Perform film coating of tables/granules.
C506.5	Prepare and evaluate Tetracycline capsules.
C506.6	Prepare Calcium gluconate injection.
C506.7	Conduct quality control test of marketed tablets and capsules (as per IP).

Course Code: C507**Sub: Pharmacology-II (PR)**

C507.1	They would be trained with isolation of different organs/tissues from the laboratory animals by simulated experiments
C507.2	They would have observed the various receptor actions using isolated tissue preparation
C507.3	They would have observed the in-vitro pharmacology and physiological salt solutions.
C507.4	They would have observed DRC of different organs/tissues from the laboratory animals by simulated experiments
C507.5	They would have observed Bioassay of different organs/tissues from the laboratory animals by simulated experiments
C507.6	They would have Determination of PD ₂ value & Determination of PA ₂ value



Course Code: C508 Sub: Pharmacognosy and Phytochemistry-II(PR)

C508.1	To study morphology, microscopy and powder microscopy of crude drugs
C508.2	To study extraction, isolation and detection of active principles of crude drugs
C508.3	To understand separation of active chemical constituents by chromatography
C508.4	To perform Thin Layer Chromatography of herbal extracts
C508.5	To perform distillation of volatile oils and their detections
C508.6	To analyze crude drug by chemical tests

SEMESTER –VI**Course Code: C601 Sub: Medicinal Chemistry-III (TH)**

C601.1	Understand detailed aspects of the design & development of drugs including history, classification, nomenclature, structure-activity relationship (SAR), of Antibiotics
C601.2	Understand mechanism of action, adverse effects, therapeutic uses, degradation pathways of Antibiotics such as penicillin, cephalosporins, tetracyclines, macrolides, aminoglycosides, Chloramphenicol.
C601.3	Explain reaction mechanisms involved in the synthesis of medicinally important compounds.
C601.4	Discuss the Classification, SAR, Mechanism of action, adverse effects, Therapeutic uses and metabolism of anti-tubercular agents, Anti-viral agents, Anti-fungal drugs, Drugs acting on UTI, Sulphonamides&sulphones.
C601.5	Know the general aspects of drug design and development, various aspects of CADD and QSAR parameters.
C601.6	Understand and Explain various techniques of combinatorial chemistry and understand applications of combinatorial, antimalarials,

Course Code: C602Sub: Pharmacology-III (TH)

C602.1	Students would have studied elaborately on mechanism of drug action and its relevance in the treatment of different infectious diseases
C602.2	Students comprehended the principles of toxicology and treatment of various poisonings and
C602.3	Students came across the methods of toxicity studies
C602.4	Students studied about symptoms of several poisonings
C602.5	Students studied about treatment of several poisonings
C602.6	Students understood the chronopharmacology & Chemotherapy.

Course Code: C603Sub: Herbal Drug Technology(TH)

C 603.1	To understand raw material as source of herbal drugs from cultivation to herbal drug product
C 603.2	Ton know the WHO and ICH guidelines for evaluation of herbal drugs
C 603.3	To know the herbal cosmetics, natural sweeteners, nutraceuticals
C 603.4	To appreciate patenting of herbal drugs and GMP.
C 603.5	To know Indian Systems of medicines
C 603.6	To know plant based industries and institutions involved in work on medicinal and aromatic plants in India.



Course Code: C604 Sub: Biopharmaceutics and Pharmacokinetics(TH)

C604.1	Define the basic concepts in biopharmaceutics and pharmacokinetics.
C604.2	Determine the effect of Pharmacokinetic (ADME) parameters on the biological effects of the drug.
C604.3	Carry out biopharmaceutical studies and use data so obtained in the development of new drugs or dosage forms.
C604.4	Design dosage regimens for patients based on calculated pharmacokinetic parameters.
C604.5	Design Bioavailability and Bioequivalence studies of new drugs or dosage forms.
C604.6	Evaluate drug-protein binding as a tool to predict pharmacokinetics of drugs.

Course Code: C605 Sub: Pharmaceutical Biotechnology(TH)

C605.1	To understand the importance of Immobilized enzymes in Pharmaceutical Industries.
C605.2	To study the Genetic engineering applications in relation to production of pharmaceuticals
C605.3	To study the Importance of Monoclonal antibodies in Industries.
C605.4	To appreciate the use of microorganisms in fermentation technology.
C605.5	To study the Collection, Processing and Storage of whole human blood, dried human plasma, plasma Substitutes.
C605.6	To study the Immuno blotting techniques- ELISA, Western blotting, Southern blotting.

Course Code: C606 Sub: Pharmaceutical Quality Assurance(TH)

C606.1	To understand the importance of C GMP aspects in Pharmaceutical Industries.
C606.2	To appreciate importance of documentation.
C606.3	To understand scope of regulatory affairs applications to pharmaceutical industries.
C606.4	To understand scope of quality certification applications to pharmaceutical industries.
C606.5	To understand responsibilities of QA departments.
C606.6	To understand responsibilities of QC departments.

Course Code: C607 Sub: Medicinal Chemistry-III (PR)

C607.1	Understand how to make correct use of various equipment & take safety measures while working in a medicinal chemistry laboratory.
C607.2	Synthesize, and understand reaction mechanisms involved in the synthesis of medicinally important compounds and perform the Assay of drugs.
C607.3	To study the interpretation of UV spectra of unknown drugs.
C607.4	Comprehend the techniques of microwave-assisted synthesis and explain applications of microwave-assisted synthesis in pharmaceutical research.
C607.5	Able to draw structures and reactions using Chem draw.
C607.6	Purify Synthesized compounds using various procedures like recrystallization.



Course Code: C608 Sub: Pharmacology-III (PR)

C608.1	Students would be trained with isolation of different organs/tissues from the laboratory animals by simulated experiments
C608.2	Students would have Dose calculation in pharmacological experiments
C608.3	Students would have Determination of acute oral toxicity (LD50) of a drug from a given data
C608.4	Students would be trained with Calculation of pharmacokinetic parameters from a given data
C608.5	Students would be trained with Biostatistics methods in experimental pharmacology
C608.6	Students would have Calculation of pharmacokinetic parameters from a given data

Course Code: C609 Sub: Herbal Drug Technology (PR)

C609.1	To perform preliminary phytochemical screening of crude drugs
C609.2	To evaluate natural excipients
C609.3	To prepared different herbal formulations and their evaluation as per pharmacopoeial standards
C609.4	To analyze monographs of herbal drugs from pharmacopoeia
C609.5	To prepared ayurvedic formulations and their evaluation
C609.6	To determine aldehyde content, phenol content and total alkaloid of crude drugs

SEMESTER –VII**Course Code: C701****Sub: Pharmaceutics-V (TH)**

C701.1	Understand the importance of capsule manufacturing process.
C701.2	Understanding principles of manufacturing and coating of tablets dosage forms.
C701.3	Understand principles of manufacturing, coating and equipment evaluation of capsules.
C701.4	To understand the basic technique of manufacturing pre-formulations and formulations of parenterals.
C701.5	To evaluate prefilling and aseptic techniques of parenterals.
C701.6	To understand packaging materials of pharmaceuticals and GMP.

Course Code: C702 Sub: Medicinal Chemistry-III (TH)

C702.1	To understand History, development, classification, recent development, mode of Action SAR, IUPAC and synthesis of antihypertensives, antiarrhythmics,
C702.2	To understand History, development, classification, recent development, mode of Action SAR, IUPAC and synthesis of anticoagulants, antithrombotics, thrombolytics, antianginals, coronary vasodilators
C702.3	To understand History, development, classification, recent development, mode of Action SAR, IUPAC and synthesis of Hypolipoproteinemic drugs, diurectics and antidiuretics.
C702.4	To understand History, development, classification, recent development, mode of Action SAR, IUPAC and synthesis of Local anaesthetics, Sedative-hypnotics
C702.5	To understand History, development, classification, recent development, mode of Action SAR, IUPAC and synthesis of antiepileptics, antipsychotics, antianxiety agents, central nervous system stimulants and psychedelics
C702.6	To understand History, development, classification, recent development, mode of Action SAR, IUPAC and synthesis of Steroids and related drugs, Immunomodulators.



Course Code: C703 Sub: Pharmacology-III (TH)

C 703.1	Students will demonstrate Pharmacology of drugs acting on Immunopharmacology
C 703.2	To understand Pharmacology of Drug Acting on Blood and Blood forming agent
C 703.3	To understand Pharmacology of drugs acting on Cardiovascular system
C 703.4	To understand Pharmacology of drugs acting on Kidney
C 703.5	To understand Pharmacology of drugs acting on Gastro-Intestinal system
C 703.6	To understand Pharmacology of drugs acting on Pharmacology of drugs acting on Nervous System

Course Code: C704 Sub: Pharmacognosy-V (TH)

C704.1	To understand Application of column, paper and thin layer chromatographic techniques for the isolation of phytopharmaceuticals.
C704.2	To understand Isolation Techniques
C704.3	To understand Plant Biotechnology
C704.4	To understand Worldwide trade of crude drugs and volatile oils
C704.5	To understand Natural allergens and photosensitizing agents & fungal toxins
C704.6	To understand WHO guidelines on good agricultural and collection practices for medicinal plants

Course Code: C705 Sub: Pharmaceutical Analysis (TH)

C705.1	To Understand the estimation of drugs Infrared Spectroscopy, Raman Spectroscopy
C705.2	To Understand the estimation of drugs Polarimetry,
C705.3	To Understand the estimation of drugs Refractometry
C705.4	To Understand the estimation of drugs Nephelometry and Turbidometry,
C705.5	To Understand the estimation of drugs Electrochemical Methods
C705.6	To Understand the estimation of drugs Thermal Analysis

Course Code: C706 Sub: Pharmaceutical Jurisprudence (TH)

C706.1	To understand History of pharmacy legislation in India.
C706.2	To understand Pharmaceutical ethics, Pharmacy Act 1948 and Drugs & Cosmetics Act 1940 and Rules 1945.
C706.3	To understand Medicinal & toilet preparations (Excise duties) Act 1955.
C706.4	To understand Narcotic drugs and Psychotropic Substances Act 1985 and Rules and Drugs Price Control Order.
C706.5	To understand Business Management.
C706.6	To understand Pharmaceutical Marketing and Production Management.



Course Code: C707

Sub: Seminar (TH)

C704.1	To demonstrate the topic good oral representations.
C704.2	To demonstrate the topic very neat and skillful.
C704.3	To demonstrate the topic with good communication skills.
C704.4	To demonstrate the topic with excellent command.
C704.5	To demonstrate the topic with positive body language.
C704.6	To demonstrate the topic self confidence.

Course Code: C708

Sub: Pharmaceutics-V (PR)

C701.1	To illustrate preparation stabilization, physical and biological evaluation of pharmaceutical products
C701.2	To Understanding principles Coating of tablets.
C701.3	To Understand Evaluation of materials used in pharmaceutical packaging.
C701.4	Evaluation of packages- containers & closures.
C701.5	To study influence of pH, salt form & Pharmaceutical adjuvant on dissolution of drugs.
C701.6	To understand packaging materials of pharmaceuticals and GMP.

Course Code: C709 Sub: Medicinal Chemistry-III (PR)

C701.1	To Understand Laboratory scale preparation by conventional synthesis.
C701.2	To Understand Laboratory scale preparation by microwave synthesis of selected drugs from course content.
C701.3	To Understand characterization of drugs by melting point / boiling point .
C701.4	To Understand characterization of drugs by thin layer chromatography / ultra-violet Spectroscopy.
C701.5	To Understand characterization of drugs by IR spectroscopy.
C701.6	Establishing the pharmaceutical standards of drug synthesized.

Course Code: C710

Sub: Pharmacology-III (PR)

C701.1	To understand various pharmacological techniques (In vitro) on isolated tissue preparation of animals.
C701.2	To establish Dose Response Curve of suitable agonists using suitable animal tissue preparations.
C701.3	To study Antisecretory and ulceroprotective effect of cimetidine or other related drugs in pylorus ligated rats.
C701.4	To study the effect of drugs on Grip strength in animals by Pole climbing/ simple rope tides method
C701.5	To study the experimental models for diuretics and anxiolytic.
C701.6	To study Surgical techniques



Course Code: C711 Sub: Pharmacognosy-V (PR)

C701.1	To study Macroscopical and microscopical evaluation including Quantitative microscopy.
C701.2	Estimation of secondary metabolites like alkaloids, terpenoids and flavonoids by different methods.
C701.3	Estimation of plant phytoconstituents using modern methods like UV and HPTLC.
C701.4	Extraction and isolation of volatile oils and phytoconstituents.
C701.5	Evaluation of crude drugs as per WHO guidelines
C701.6	To study Application of TLC and paper chromatography in phytochemical evaluation of crude drugs.

Course Code: C712 Sub: Pharmaceutical Analysis-III (PR)

C701.1	Calibration of conductometer and pH meter, estimation of conductivity of distilled water and measurement of pH.
C701.2	To study Conductometric titrations and Potentiometric titrations.
C701.3	To study determination of pKa value of tribasic acid by using pH meter.
C701.4	To study determination of refractive index by Abbe's Refractometer
C701.5	To understand Polarimetric analysis of some carbohydrates.
C701.6	To Demonstrate Identify functional groups using IR analysis

SEMESTER –VIII**Course Code: C801****Sub: Pharmaceutics-VI (TH)**

C801.1	To understand the applications Prolonged Action Pharmaceuticals
C801.2	To understand Micro-encapsulation
C801.3	To understand Novel Drug delivery systems
C801.4	To understand Design, development and process validation methods
C801.5	To understand Polymer science and application in formulation design.
C801.6	To understand Stabilization and stability testing protocol for various pharmaceutical products.

Course Code: C802**Sub: Medicinal Chemistry-IV (TH)**

C802.1	To understand Principles of Drug Design
C802.2	To understand Quantitative models of QSAR
C802.3	To understand Application of Hansch and Free Wilson Analysis
C802.4	To understand Enzymes Peptides in drug design
C802.5	To understand Molecular modeling in drug analysis
C802.6	To understand Ligand design based on 3D structure of receptor / enzyme.



Course Code: C803 Sub: Pharmaceutical Analysis-IV (TH)

C803.1	To understand principles of Quality Assurance
C803.2	To understand principles of Statistics & Statistical quality control
C803.3	To understand principles of Chromatographic techniques.
C803.4	To understand principles of Nuclear Magnetic Resonance Spectroscopy (NMR) and Electron Spin Resonance (ESR)
C803.5	To understand principles of Mass Spectroscopy and X-ray Diffraction
C803.6	To understand principles of Radioimmunoassays and its applications.

Course Code: C804 Sub: Pharmacognosy-VI (TH)

C804.1	To understand Quality control and Standardization of herbal drugs.
C804.2	To understand knowledge of Herbal formulations.
C804.3	To understand formulations of Herbal cosmetics and Nutraceuticals.
C804.4	To understand Utilization and Industrial Production of Phytoconstituents.
C804.5	To understand Role of Medicinal and Aromatic Plants in National Economy.
C804.6	To understand General methods of screening natural products for the Biological activities.

Course Code: C805 Sub: Clinical Pharmacotherapeutics (TH)

C805.1	To understand diseases associated with Cardiovascular System and Respiratory system.
C805.2	To understand Haematological diseases and Gastrointestinal diseases.
C805.3	To understand diseases associated with Renal System.
C805.4	To understand diseases associated with Endocrine system and Neuro-psychiatric disorders
C805.5	To understand Infectious diseases.
C805.6	To understand principles of Toxicology.

Course Code: C806 Sub: Communication Skills (TH)

C806.1	To understand comprehension over an unseen passage.
C806.2	To understand Simple and compound sentences with Active and passive forms.
C806.3	To understand principles of communications.
C806.4	To understand principles of verbal communication.
C806.5	To understand aspects of professional communication.
C806.6	To understand Methodology of conduction of meeting, seminars, symposia, conference and workshop.

Course Code: C807 Sub: Pharmaceutics-VI (PR)

C810.1	To perform Formulation of oral S.R.Products & their evaluation by <i>in-vitro</i> dissolution profile.
C810.2	To understand Preparation and evaluation of microcapsules by employing various techniques.
C810.3	To understand Stability evaluation of various dosage forms and their expiration dating.
C810.4	To understand experiments illustrative of the theory of syllabus.
C810.5	To understand experiments illustrative of the theory of syllabus.
C810.6	To understand experiments illustrative of the theory of syllabus.



Course Code: C808 Sub: Medicinal Chemistry-IV (PR)

C811.1	To perform Workshop on modeling molecular structure with suitable method
C811.2	To perform Laboratory scale preparation by conventional synthesis.
C811.3	To perform Laboratory scale preparation by microwave synthesis of selected drugs from course content and characterization by melting point / boiling point.
C811.4	To Establish the pharmaceutical standards of drug synthesized.
C811.5	Characterization of drugs by thin layer chromatography / ultra-violet spectroscopy / IR spectroscopy.
C811.6	Determination of partition coefficient, dissociation constant and molar refractivity of compounds for QSAR analysis

Course: C809 Sub: Pharmaceutical Analysis-IV (PR)

C813.1	To perform UV spectrophotometric estimations of drug and from their formulations
C813.2	To perform experiments on paper, thin layer and column chromatography.
C813.3	To perform Complete analysis of APIs/Excipients as per I.P.
C813.4	To perform evaluation test of glass container.
C813.5	To determine water vapor transmission of polyethylene bottles.
C813.6	Demonstration of HPLC and GC.

Course: C810 Sub: Pharmacognosy-VI (PR)

C813.1	To understand Macroscopical and microscopical evaluation including Quantitative microscopy.
C813.2	To Estimate the secondary metabolites and plant phytoconstituents using modern methods like UV and HPTLC.
C813.3	Extraction and isolation of volatile oils and phytoconstituents.
C813.4	Evaluation of crude drugs as per WHO guidelines and Application of TLC and paper chromatography in phytochemical evaluation of crude drugs.
C813.5	To perform Systematic analysis of crude drugs from unknown origin.
C813.6	To perform Tissue culture, Chemical evaluation of powdered drugs & Enzymes and Chromatographic studies of some herbal formulations.



**Course Outcome's of All Courses from 1st to 8th Sem
AY- 2020-21
SEMESTER –I**

Course Code: C101**Sub: Human Anatomy and Physiology-I (TH)**

C101.1	Upon the completion of the course, the student shall be able to explain the basic anatomical terminologies.
C101.2	Describe the structure and functions of various organs of the human body.
C101.3	Describe the various homeostatic mechanisms.
C101.4	Explain the divisions of skeletal system.
C101.5	Explain the composition and function of body fluids.
C101.6	Appreciate coordinated working pattern of different organs of each system.

Course Code: C102**Sub: Pharmaceutical Analysis-I(TH)**

C102.1	Upon the completion of the course, the student shall be able to Understand the principles of volumetric and electrochemical analysis.
C102.2	Demonstrate complexometric and non-aqueous titration that helps them in Performing practical.
C102.3	Expression of various concentrations and preparations.
C102.4	The course will develop different analytical skills.
C102.5	Understand the qualitative and quantitative estimations of chemical compounds.
C102.6	Differentiate the analytical techniques used in pharmaceuticals about Indian Pharmacopoeia and other reference books.

Course Code: C103**Sub: Pharmaceutics-I(TH)**

C103.1	To Know the history of profession of pharmacy
C103.2	To understand the basics of different dosage forms, pharmaceutical incompatibilities and pharmaceutical calculations
C103.3	To understand the professional way of handling the prescription
C103.4	To study the preparation of various conventional dosage forms
C103.5	To study Pharmaceutical incompatibilities.
C103.6	To study the semisolid dosage form in detail.

Course Code: C104**Sub: Pharmaceutical Inorganic Chemistry(TH)**

C104.1	Knowledge of the sources of impurities drugs and pharmaceuticals..
C104.2	Understand the methods to determine the impurities in inorganic drugs and pharmaceuticals.
C104.3	Understand the medicinal and pharmaceutical importance of acids, bases and buffers.
C104.4	Appreciate the medicinal and pharmaceutical importance of physiological ions.
C104.5	Knowledge of inorganic gastrointestinal agents and dental products.
C104.6	Understanding importance and applications of radiopharmaceuticals.



Course Code: C105**Sub: Communication Skills(TH)**

C105.1	Understand the behavioral needs for a Pharmacist to function effectively in the,
C105.2	Areas of pharmaceutical operation.
C105.3	Communicate effectively (Verbal and Non Verbal).
C105.4	Effectively manage the team as a team player.
C105.5	Develop interview skills.
C105.6	Develop Leadership qualities and essentials

Course Code: C106**Sub: Remedial Biology(TH)**

C106.1	Students would have understood the components of living world, structure and functional system of plant and animal kingdom
C106.2	Students would have understood know the classification and salient features of five kingdoms of life
C106.3	Students would have understood understand the basic components of anatomy & physiology of plant
C106.4	Students would have understood know understand the basic components of anatomy & physiology animal with special reference to human
C106.5	Students would have understood They would have understood the cell communication mechanism
C106.6	Students would have understood the Plants and mineral nutrition Photosynthesis Plant growth and development

Course Code: C107**Sub: Human Anatomy and Physiology-I (PR)**

C107.1	Upon the completion of the course, the student shall be able to describe the different types of tissues
C107.2	Understand complete bones of human body
C107.3	Study practical aspects of blood
C107.4	Understand the practical aspect of RBC and WBC count
C107.5	Describe the procedure and significance of bleeding and clotting time
C107.6	Know the practical aspects of heart rate and blood pressure

Course Code: C108**Sub: Pharmaceutical Analysis-I (PR)**

C108.1	Upon the completion of the course, the student shall be able to Able to apply volumetric analytical techniques for analysis of chemical compounds.
C108.2	Able to apply electrochemical analytical techniques for analysis of chemical compounds.
C108.3	Able to identify and locate the impurities through a different technique like a limit test.
C108.4	The students will be able to apply the use of different reference books for different fundamental techniques of analysis
C108.5	By taking regular viva-voce we can analyze the achievements of practical knowledge.
C108.6	Expected to appraise the general characteristics of the analytical method in drug analysis.



Course Code: C109**Sub: Pharmaceutics-I (PR)**

C109.1	To study the various liquid dosage form.(Syrup, Elixir, Solution)
C109.2	To study the various Biphasic dosage form.(Suspension, Emulsion)
C109.3	To study the Powder dosage form.
C109.4	To study the various Internally use formulation.
C109.5	To study the Externally use formulation.
C109.6	To study the suppository.

Course Code: C110**Sub: Pharmaceutical Inorganic Chemistry(PR)**

C110.1	Knowledge of the sources of impurities and their detection in drugs and pharmaceuticals..
C110.2	Understand the methods for identification of some important inorganic compounds
C110.3	Understand the medicinal and pharmaceutical importance of acids , bases and buffers.
C110.4	Knowledge of some special test to assess the purity of inorganic compounds.
C110.5	Knowledge of preparation of some inorganic compounds.
C110.6	Appreciate the pharmaceutical applications of inorganic compounds.

Course Code: C111**Sub: Communication Skills(PR)**

C111.1	Students will be able to understand and apply knowledge of human communication and language processes as they occur across various contexts.
C111.2	Students will be able to understand and evaluate key practical approaches used in the interdisciplinary field of communication.
C111.3	Students will be able to understand the research methods associated with the study of human communication.
C111.4	Students will be able to find, use, and evaluate primary academic writing associated with the communication discipline.
C111.5	Students will develop knowledge, skills, and judgment around human communication that facilitate their ability to work collaboratively with others.
C111.6	Students will be able to communicate effectively orally and in writing.

Course Code: C112**Sub: Remedial Biology(PR)**

C112.1	Students would have understood the Microscopic study and identification of tissues pertinent to Stem, Root Leaf, seed, fruit and flower
C112.2	Students would have observed the general anatomy of root, stem, leaf
C112.3	Students would have observed basis of classification. Salient features of Monera, Potista, Fungi, Animalia and Plantae, Virus,
C112.4	Students would have understood the would have Identification of bones
C112.5	Students would Determination of blood group blood pressure tidal volume
C112.6	Students would have Study of cell and its inclusions



SEMESTER –II**Course Code: C201****Sub: Human Anatomy and Physiology-II (TH)**

C201.1	Explain the gross morphology, structure and functions of various organs of the human body.
C201.2	Describe the various homeostatic mechanisms and their imbalances.
C201.3	Identify the various tissues and organs of different systems of human body.
C201.4	Perform the hematological tests like blood cell counts, haemoglobin estimation, bleeding /clotting time etc and also record blood pressure, heart rate, pulse and respiratory volume.
C201.5	Appreciate coordinated working pattern of different organs of each system
C201.6	Appreciate the interlinked mechanisms in the maintenance of normal functioning (homeostasis) of human body.

Course Code: C202**Sub: Pharmaceutical Organic Chemistry-I (TH)**

C202.1	Understanding the type of isomerism of the organic compound.
C202.2	Ability to write the structure, name of the organic compounds.
C202.3	Understanding of the preparation methods of the organic compounds.
C202.4	Understanding of the reaction, name the reaction and orientation of reactions
C202.5	Understanding of account for reactivity/stability of compounds
C202.6	Understanding of identify/confirm the identification of organic compound

Course Code: C203**Sub: Biochemistry-I (TH)**

C203.1	Upon the completion of the course, the student shall be able to learned about chemistry and the biological importance of biological Macromolecule.
C203.2	Understand fundamental principles of biochemistry, including major pathways of Metabolism.
C203.3	Understand biosynthesis, replication transcription, and translation.
C203.4	Explain qualitative and quantitative understanding of biomolecule structure, the enzyme catalyzes a chemical reaction that transforms biomolecule.
C203.5	Explain different types of macromolecule their structure and functions.
C203.6	Explain the metabolism of carbohydrate, lipid, amino acid and their role in our body.

Course Code: C204**Sub: Pathophysiology (TH)**

C204.1	Upon the completion of the course, the student shall be able to Describe the etiology of the selected disease states
C204.2	Name the signs and symptoms of the diseases
C204.3	Mention the various diagnostic tests of the diseases
C204.4	Explain the treatment of various diseases
C204.5	Study the pathogenesis of the selected disease states
C204.6	Describe of pathophysiology of different diseases



Course Code: C205 Sub: Computer Application in Pharmacy (TH)

C205.1	Upon the completion of the course, the student shall be able to know the various types of application of computers in pharmacy
C205.2	Student should know the various types of databases.
C205.3	Student should know the various applications of databases in pharmacy
C205.4	Student should know Web technologies like HTML, XML, CSS and Programming languages
C205.5	Student should know Bioinformatics, Databases, Concept of Bioinformatics, Impact of Bioinformatics in Vaccine Discovery
C205.6	Student should know Chromatographic data analysis(CDS), Laboratory Information management System (LIMS) and Text Information Management System(TIMES)

Course Code: C206 Sub: Environmental Science (TH)

C206.1	Upon the completion of the course, the student shall be able to gain in-depth knowledge on natural processes that sustain life, and govern economy.
C206.2	Predict the consequences of human actions on the web of life, global economy and quality of human life.
C206.3	Develop critical thinking for shaping strategies (scientific, social, economic and legal) for environmental protection and conservation of biodiversity, social equity and sustainable development.
C206.4	Acquire values and attitudes towards understanding complex environmental economic social challenge.
C206.5	Participating actively in solving current environmental problems and preventing the future ones.
C206.6	Adopt sustainability as a practice in life, society and industry

Course Code: C207 Sub: Human Anatomy and Physiology-II (PR)

C207.1	To study the integumentary and special senses using specimen, models, etc.,
C207.2	To demonstrate the general neurological examination
C207.3	To examine the different types of taste
C207.4	Study of digestive, respiratory, cardiovascular systems, urinary and reproductive systems with the help of models, charts and specimens.
C207.5	Study of family planning devices and pregnancy diagnosis test.
C207.6	Demonstration of total blood count by cell analyser.

Course Code: C208 Sub: Pharmaceutical Organic Chemistry-I (PR)

C208.1	Understand the test used for detection of aliphatic/aromatic compounds and saturated/unsaturated organic compounds.
C208.2	Knowledge of detection of elements like Nitrogen, Sulphur and Halogen.
C208.3	Understand the detection of Functional group of organic compound.
C208.4	Understand the importance and application of Melting point/Boiling point of organic compounds in qualitative analysis
C208.5	Knowledge of preparation of solid derivatives from organic compounds
C208.6	Able to construct molecular models of organic compounds



Course Code: C209**Sub: Biochemistry (PR)**

C209.1	Upon the completion of the course, the student shall be able to Understand the qualitative test for carbohydrates.
C209.2	Understand the qualitative test for protein.
C209.3	Understand the determination of glucose, total cholesterol, and creatinine in the Blood.
C209.4	Determine the salivary amylase activity and effect of temperature on it.
C209.5	Quantitative analysis of reducing sugar and protein.
C209.6	Understand the effects of substrate concentration on salivary amylase activity.

Course Code: C210**Sub: Computer Application in Pharmacy (PR)**

C205.1	Upon the completion of the course, the student shall be able to design a questionnaire using a word processing package to gather information about a particular disease.
C205.2	Create a HTML web page to show personal information.
C205.3	Retrieve the information of a drug and its adverse effects using online tools
C205.4	Create a database in MS Access to store the patient information with the required fields Using access
C205.5	Creating and working with queries in MS Access
C205.6	Generating report and printing the report from patient database and Creating invoice table using – MS Access.

SEMESTER –III**Course Code: C301****Sub: Pharmaceutical Organic Chemistry-II (TH)**

C301.1	Understand the introduction, orbital picture, resonance, reactions and effects of substituents of benzene.
C301.2	Explain acidity, effect of substituents, reaction and qualitative test of phenols. Also elucidate basicity, effect of substituents, reaction of aromatic amines
C301.3	Explain acidity, effect of substituents, reaction of Aromatic Acids.
C301.4	Understand the chemistry of fats and oils. And various analytical constants.
C301.5	Knowledge of synthesis, reactions and structure and medicinal uses of some polynuclear hydrocarbons.
C301.6	Understand the theory of cycloalkanes and chemistry of fats and oils.

Course Code: C302**Sub: Physical Pharmaceutics-I (TH)**

C302.1	Understand principles involved in solubility of drugs.
C302.2	Understand the states of matter, changes therein & their applications.
C302.3	Appreciate the methods of determination & application of some physicochemical properties.
C302.4	Understand the principles & applications of surface & interfacial phenomenon.
C302.5	Understand the principles & applications of complexation & protein binding.
C302.6	Understand the principles, preparation & applications of buffers & isotonic solutions.



Course Code: C303**Sub: Pharmaceutical Microbiology (TH)**

C303.1	Upon the completion of the course, the student shall be able to understand the importance and implementation of sterilization & disinfectant in the pharmaceutical industry.
C303.2	Know the general bacteriology and Understand methods of identification.
C303.3	Understand methods of identification, isolation, cultivation, and preservation of bacteria & viruses.
C303.4	Understand the designing of the aseptic area and various methods of the microbiological assay.
C303.5	Know about microbial spoilage and how to preserve the pharmaceutical product from microbial spoilage.
C303.6	Understand the cell culture technology and its application in the pharmaceutical industry.

Course Code: C304**Sub: Pharmaceutical Engineering (TH)**

C304.1	To know various unit operations used in Pharmaceutical industries.
C304.2	To understand the material handling techniques
C304.3	To perform various processes involved in pharmaceutical manufacturing process.
C304.4	To carry out various test to prevent environmental pollution.
C304.5	To appreciate and comprehend significance of plant lay out design for optimum use of resources.
C304.6	To appreciate the various preventive methods used for corrosion control in Pharmaceutical industries.

Course Code: C305**Sub: Pharmaceutical Organic Chemistry-II (PR)**

C305.1	Students should be able to synthesize the various organic compounds and understands the reaction mechanism involved in the synthesis.
C305.2	Students should be able to synthesize the various organic compounds and understands the reaction mechanism involved in the synthesis.
C305.3	Calculate the percentage yields of the products obtained by synthesis.
C305.4	Purify organic compounds using various procedures like recrystallization.
C305.5	Purify organic compounds using steam distillation.
C305.6	Apply recrystallization and steam distillation methods for the purification of synthesized organic compounds.

Course Code: C306**Sub: Physical Pharmaceutics-I (PR)**

C306.1	Understand practical aspects of solubility of drugs .
C306.2	Understand partition coefficient of some drugs .
C306.3	Understand Surface tension & HLB number .
C306.4	Understand adsorption isotherms.
C306.5	Understand critical micelle concentration of surfactants.
C306.6	Understand some complexes.



Course Code: C307**Sub: Pharmaceutical Microbiology(PR)**

C307.1	Upon the completion of the course, the student shall be able to Understand perform staining of bacteria.
C307.2	Understand identification of bacteria.
C307.3	Perform Sub culturing of bacteria.
C307.4	Isolate pure cultures of bacteria by various techniques.
C307.5	Perform the microbial assay of antibiotics by various methods.
C307.6	Perform the sterility testing of pharmaceuticals.

Course Code: C308**Sub: Pharmaceutical Engineering(PR)**

C308.1	Understand Construction of drying curves.
C308.2	To determine the radiation constant of brass, iron, unpainted and painted glass.
C308.3	To determine the overall heat transfer coefficient by heat exchanger.
C308.4	To verify the laws of size reduction using ball mill and determining Kicks, Rittinger's, Bond's coefficients, power requirement and critical speed of Ball Mill.
C308.5	To study the effect of time on the Rate of Crystallization.
C308.6	To calculate the uniformity Index for given sample by using Double Cone Blender.

SEMESTER –IV**Course Code: C401****Sub: Pharmaceutical Organic Chemistry-III (TH)**

C401.1	To understand methods of preparation of organic compounds.
C401.2	To understand properties of organic compounds.
C401.3	Explain stereo chemical aspects of organic compounds.
C401.4	Explain stereo chemical reactions of organic compounds.
C401.5	To know medicinal uses of organic compounds.
C401.6	To know other applications of organic compounds.

Course Code: C402**Sub: Medicinal Chemistry-I (TH)**

C402.1	To Gain fundamental knowledge on the structure, chemistry and therapeutic value of drugs.
C402.2	To study Structure activity relationships of drugs
C402.3	Importance of physicochemical properties and metabolism of drugs
C402.4	Understand the chemistry of drugs with respect to their pharmacological activity
C402.5	Study the drug metabolic pathways, adverse effect and therapeutic value of drugs
C402.6	Student Should draw chemical synthesis of drugs.



Course Code: C403**Sub: Physical Pharmaceutics-II (TH)**

C403.1	Understand the colloidal dispersions & their properties.
C403.2	Understand the principles of rheology & their pharmaceutical applications with respect to flow of fluids.
C403.3	Understand the principles of rheology & their pharmaceutical applications with respect to deformation of solids.
C403.4	Study coarse dispersions, their formulation & stability aspects.
C403.5	Study the principles of micromeritics & their pharmaceutical applications.
C403.6	Understand the principles of chemical kinetics & use them for stability testing and determination of expiry date of formulations.

Course Code: C404**Sub: Pharmacology-I (TH)**

C404.1	Students would have understood the pharmacological actions of different categories of drugs.
C404.2	They would have studied in detailed about mechanism of drug action at organ system/sub cellular/macromolecular levels.
C404.3	They would have understood the application of basic pharmacological knowledge in the prevention and treatment of various diseases
C404.4	They would have understood the signal transduction mechanism of various receptors
C404.5	Students would have understood Drug discovery and clinical evaluation of new drugs.
C404.6	Students would get an idea about Pharmacology of drugs acting on peripheral nervous system and CNS.

Course Code: C405**Sub: Pharmacognosy and Phytochemistry-I (TH)**

C405.1	To know the techniques in the cultivation and production of crude drugs
C405.2	To know the crude drugs, their uses and chemical nature
C405.3	To know the evaluation techniques for the herbal drugs
C405.4	To carry out the microscopic and morphological evaluation of crude drugs
C405.5	To know the Plant tissue culture techniques and their applications
C405.6	To know the different systems of medicines and plant products, primary and secondary metabolites.

Course Code: C406**Sub: Medicinal Chemistry-I (PR)**

C406.1	Study of different Preparation of drugs/ intermediates
C406.2	Study of different Assay of drugs
C406.3	To study Determination of Partition coefficient
C406.4	To determine the percentage purity of drug .
C406.5	Synthesis of drug by Microwave oven .
C406.6	Synthesis of drug by conventional method



Course Code: C407**Sub: Physical Pharmaceutics-II(PR)**

C407.1	Study the micromeritic properties of pharmaceutical samples.
C407.2	Understand viscosity of pharmaceuticals using different viscometers.
C407.3	Study the effect of formulative variables on properties of coarse dispersions.
C407.4	Study of reaction rate constants.
C407.5	Understand derived properties of pharmaceutical samples.
C407.6	Appreciate the importance of accelerated stability studies.

Course Code: C408**Sub: Pharmacognosy and Phytochemistry-I (PR)**

C408.1	To study the analysis of crude drugs by chemical tests.
C408.2	To determine the various leaf constant of crude drugs.
C408.3	To determine of number of starch grains by Lycopodium spore method
C408.4	To determine of Extractive values & Ash value of crude drugs.
C408.5	To determine of moisture content of crude drugs.
C408.6	To determine of swelling index and foaming.

Course Code: C408**Sub: Pharmacology-I (PR)**

C408.1	Students would Introduced to experimental pharmacology , Commonly used instruments and common laboratory animals in experimental pharmacology
C408.2	Students would have observed the effect of drugs on animals by simulated experiments.
C408.3	Students would got an idea about correlation of pharmacology with other bio medical sciences.
C408.4	Students would be trained with Common laboratory techniques. Blood withdrawal, serum and plasma separation, anesthetics and euthanasia used for animal studies.
C408.5	Students would got an idea about different routes of drugs administration.
C408.6	Students would have study about various animal models used for ANS and CNS studies.

SEMESTER –V**Course Code: C501****Sub: Medicinal Chemistry-II (TH)**

C501.1	To impart fundamental knowledge on the structure, chemistry and therapeutic value of drugs
C501.2	To understand the chemistry of drugs with respect to their pharmacological activity
C501.3	To understand the Mechanism of action of structure on different receptor or non-receptor
C501.4	To understand the drug metabolic pathways, adverse effect and side effect of drugs
C501.5	To know the Structural Activity Relationship of different class of drugs with respective of its structure
C501.6	To study the chemical synthesis of selected drugs by chemical reactions involved in it



Course Code: C502**Sub: Industrial Pharmacy-I (TH)**

C502.1	Know the various pharmaceutical dosage forms and their manufacturing techniques.
C502.2	Know various considerations in development of pharmaceutical dosage forms.
C502.3	Formulate solid, liquid and semisolid dosage forms and evaluate them for their quality.
C502.4	Explain types, advantages and limitations, preformulation factors, production procedure, and quality control tests of parenteral products.
C502.5	Understand the various cosmetic dosage forms like lipsticks, shampoos, cold cream and vanishing cream, tooth pastes, hair dyes and sunscreens.
C502.6	Explain materials used for packaging of pharmaceutical products.

Course Code: C503**Sub: Pharmacology-II (TH)**

C503.1	Students would have understood the classification of drugs acting on different systems of body.
C503.2	Students would have understood the mechanism of drug action and its relevance in the treatment of different diseases
C503.3	Students would have understood the therapeutic effects, clinical uses, side effects and contraindications of drug acting on different systems of body
C503.4	They would appreciate the newer targets of several disease conditions for treatment.
C503.5	They would have understood the cell communication mechanism
C503.6	Students would have understood the Addition, emphasis on the basic concepts of bioassay.

Course Code: C504**Sub: Pharmacognosy and Phytochemistry-II (TH)**

C 504.1	To know the modern extraction techniques, characterization and identification of the herbal drugs and phytoconstituents
C 504.2	To understand the preparation and development of herbal formulation.
C 504.3	To understand the herbal drug interactions
C 504.4	To carryout isolation and identification of phytoconstituents
C 504.5	To understand application of latest techniques likes spectroscopy, chromatography and electrophoresis
C 504.6	To know the metabolic pathways in higher plants and their determination

Course Code: C505**Sub: Pharmaceutical Jurisprudence (TH)**

C505.1	To Understand basic knowledge on important legislations related to the profession of pharmacy in India.
C505.2	To Understand Various Indian pharmaceutical Acts and Laws
C505.3	To Understand the regulatory authorities and agencies governing the manufacture and sale of pharmaceuticals
C505.4	To Understand the code of ethics during the pharmaceutical practice
C505.5	To Understand Basic Knowledge about Intellectual property rights
C505.6	To Understand the Pharmaceutical legislations and their implications in the development and marketing of pharmaceuticals



Course Code: C506**Sub: Industrial Pharmacy-I (PR)**

C506.1	Preformulation studies on paracetamol/aspirin/or any other drug.
C506.2	Prepare and evaluate paracetamol tablets.
C506.3	Prepare and evaluate aspirin tablets.
C506.4	Perform film coating of tables/granules.
C506.5	Prepare and evaluate Tetracycline capsules.
C506.6	Prepare Calcium gluconate injection.
C506.7	Conduct quality control test of marketed tablets and capsules (as per IP).

Course Code: C507**Sub: Pharmacology-II (PR)**

C507.1	They would be trained with isolation of different organs/tissues from the laboratory animals by simulated experiments
C507.2	They would have observed the various receptor actions using isolated tissue preparation
C507.3	They would have observed the in-vitro pharmacology and physiological salt solutions.
C507.4	They would have observed DRC of different organs/tissues from the laboratory animals by simulated experiments
C507.5	They would have observed Bioassay of different organs/tissues from the laboratory animals by simulated experiments
C507.6	They would have Determination of PD ₂ value & Determination of PA ₂ value

Course Code: C508**Sub: Pharmacognosy and Phytochemistry-II(PR)**

C508.1	To study morphology, microscopy and powder microscopy of crude drugs
C508.2	To study extraction, isolation and detection of active principles of crude drugs
C508.3	To understand separation of active chemical constituents by chromatography
C508.4	To perform Thin Layer Chromatography of herbal extracts
C508.5	To perform distillation of volatile oils and their detections
C508.6	To analyze crude drug by chemical tests



SEMESTER –VI**Course Code: C601****Sub: Medicinal Chemistry-III (TH)**

C601.1	Understand detailed aspects of the design & development of drugs including history, classification, nomenclature, structure-activity relationship (SAR), of Antibiotics
C601.2	Understand mechanism of action, adverse effects, therapeutic uses, degradation pathways of Antibiotics such as penicillin, cephalosporins, tetracyclines, macrolides, aminoglycosides, Chloramphenicol.
C601.3	Explain reaction mechanisms involved in the synthesis of medicinally important compounds.
C601.4	Discuss the Classification, SAR, Mechanism of action, adverse effects, Therapeutic uses and metabolism of anti-tubercular agents, Anti-viral agents, Anti-fungal drugs, Drugs acting on UTI, Sulphonamides & sulphones.
C601.5	Know the general aspects of drug design and development, various aspects of CADD and QSAR parameters.
C601.6	Understand and Explain various techniques of combinatorial chemistry and understand applications of combinatorial, antimalarials,

Course Code: C602**Sub: Pharmacology-III (TH)**

C602.1	Students would have studied elaborately on mechanism of drug action and its relevance in the treatment of different infectious diseases
C602.2	Students comprehended the principles of toxicology and treatment of various poisonings and
C602.3	Students came across the methods of toxicity studies
C602.4	Students studied about symptoms of several poisonings
C602.5	Students studied about treatment of several poisonings
C602.6	Students understood the chrono pharmacology & Chemotherapy.

Course Code: C603**Sub: Herbal Drug Technology(TH)**

C603.1	To understand raw material as source of herbal drugs from cultivation to herbal drug product
C603.2	To know the WHO and ICH guidelines for evaluation of herbal drugs
C603.3	To know the herbal cosmetics, natural sweeteners, nutraceuticals
C603.4	To appreciate patenting of herbal drugs and GMP.
C603.5	To know Indian Systems of medicines
C603.6	To know plant based industries and institutions involved in work on medicinal and aromatic plants in India.

Course Code: C604**Sub: Biopharmaceutics and Pharmacokinetics (TH)**

C604.1	Define the basic concepts in biopharmaceutics and pharmacokinetics.
C604.2	Determine the effect of Pharmacokinetic (ADME) parameters on the biological effects of the drug.
C604.3	Carry out biopharmaceutical studies and use data so obtained in the development of new drugs or dosage forms.
C604.4	Design dosage regimens for patients based on calculated pharmacokinetic parameters.
C604.5	Design Bioavailability and Bioequivalence studies of new drugs or dosage forms.
C604.6	Evaluate drug-protein binding as a tool to predict pharmacokinetics of drugs.



Course Code: C605**Sub: Pharmaceutical Biotechnology(TH)**

C605.1	To understand the importance of Immobilized enzymes in Pharmaceutical Industries.
C605.2	To study the Genetic engineering applications in relation to production of pharmaceuticals
C605.3	To study the Importance of Monoclonal antibodies in Industries.
C605.4	To appreciate the use of microorganisms in fermentation technology.
C605.5	To study the Collection, Processing and Storage of whole human blood, dried human plasma, plasma Substitutes.
C605.6	To study the Immuno blotting techniques- ELISA, Western blotting, Southern blotting.

Course Code: C606**Sub: Pharmaceutical Quality Assurance(TH)**

C606.1	To understand the importance of C GMP aspects in Pharmaceutical Industries.
C606.2	To appreciate importance of documentation.
C606.3	To understand scope of regulatory affairs applications to pharmaceutical industries.
C606.4	To understand scope of quality certification applications to pharmaceutical industries.
C606.5	To understand responsibilities of QA departments.
C606.6	To understand responsibilities of QC departments.

Course Code: C607**Sub: Medicinal Chemistry-III (PR)**

C607.1	Understand how to make correct use of various equipment & take safety measures while working in a medicinal chemistry laboratory.
C607.2	Synthesize, and understand reaction mechanisms involved in the synthesis of medicinally important compounds and perform the Assay of drugs.
C607.3	To study the interpretation of UV spectra of unknown drugs.
C607.4	Comprehend the techniques of microwave-assisted synthesis and explain applications of microwave-assisted synthesis in pharmaceutical research.
C607.5	Able to draw structures and reactions using Chem draw.
C607.6	Purify Synthesized compounds using various procedures like recrystallization.

Course Code: C608**Sub: Pharmacology-III (PR)**

C608.1	Students would be trained with isolation of different organs/tissues from the laboratory animals by simulated experiments
C608.2	Students would have Dose calculation in pharmacological experiments
C608.3	Students would have Determination of acute oral toxicity (LD50) of a drug from a given
C608.4	Students would be trained with Calculation of pharmacokinetic parameters from a given data
C608.5	Students would be trained with Biostatistics methods in experimental pharmacology
C608.6	Students would have Calculation of pharmacokinetic parameters from a given data



Course Code: C609**Sub: Herbal Drug Technology(PR)**

C609.1	To perform preliminary phytochemical screening of crude drugs
C609.2	To evaluate natural excipients
C609.3	To prepared different herbal formulations and their evaluation as per pharmacopoeial standards
C609.4	To analyze monographs of herbal drugs from pharmacopoeia
C609.5	To prepared ayurvedic formulations and their evaluation
C609.6	To determine aldehyde content, phenol content and total alkaloid of crude drugs

SEMESTER –VII**Course Code: C701****Sub: Instrumental Methods of Analysis(TH)**

C701.1	Understand the interaction of matter with electromagnetic radiations and its applications in drug analysis.and principle, instrumentation and application of UV- Vis, Atomic Absorption and Emission Spectroscopy.
C701.2	Understanding principles, instrumentation and applications of Infrared spectroscopy.
C701.3	Understand principle, instrumentation and application of Flame Photometry, Flourimetry, Phosphorimetry and Nephelometry.
C701.4	To understand the basic technique of chromatography. Understand the chromatographic separation like adsorption, partition, Column, TLC, and electrophoresis in the analysis of drug.
C701.5	Understand the chromatographic separation like GC, HPLC, Ion Exchange, Gel chromatography in the analysis of drug.
C701.6	Understand the chromatographic separation like paper, thin layer, Column.

Course Code: C702**Sub: Industrial Pharmacy-II (TH)**

C702.1	Understand the importance and working of pilot plant.
C702.2	Understand the scale up of pharmaceutical dosage forms.
C702.3	Understand the process of technology transfer.
C702.4	Appreciate importance and applications of process of technology transfer.
C702.5	Knowledge of different Laws and Acts that regulate pharmaceutical industry.
C702.6	Understand the approval process and regulatory requirements for drug products.

Course Code: C703**Sub: Pharmacy Practice (TH)**

C703.1	Students will demonstrate knowledge of and ability to use principles of therapeutics, quality improvement, communication, economics, health behavior, social and administrative aspects, health policy and legal issues in the practice of pharmacy.
C703.2	Students will use knowledge of drug distribution methods in hospital and apply it in the practice of pharmacy.
C703.3	Students will effectively apply principles of drugstore management and inventory control to medication use.
C703.4	Students will provide patient-centered care to diverse patients using the best available evidence and monitor drug therapy of patient through medication chart review, obtain medication history interview and counsel the patients, identify drug related problems.
C703.5	Students will engage in innovative activities by making use of the knowledge of clinical trials.
C703.6	Students will exhibit professional ethics by producing safe and appropriate medication use throughout society.



Course Code: C704**Sub: Novel Drug Delivery Systems (TH)**

C704.1	To understand various approaches for development of novel drug delivery systems.
C704.2	To understand the criteria for selection of drugs for the development of Novel drug delivery systems
C704.3	To understand the criteria for selection of polymers for the development of Novel drug delivery systems
C704.4	To understand the criteria for selection of drugs formulation and evaluation of Novel drug delivery systems
C704.5	To understand the criteria for selection of polymers formulation and evaluation of Novel drug delivery systems
C704.6	To understand the concepts and approaches to liposomes, niosomes, nanoparticles, monoclonal antibodies and their applications.

Course Code: C705**Sub: Instrumental Methods of Analysis (PR)**

C705.1	Understand the estimation of drugs by colorimetry and Simultaneous estimation of drugs by UV spectroscopy.
C705.2	Understand the Estimation of quinine sulfate by fluorimetry and the Estimation of sodium & potassium by flame photometry.
C705.3	Understand the Estimation of chlorides and sulphates by nepheloturbidometry.
C705.4	Understand the chromatographic separation like adsorption, partition, Colum, TLC, and electrophoreses in the analysis of drug
C705.5	Understand the chromatographic separation like GC, HPLC, Ion Exchange Gel in the analysis of drug
C705.6	Understand the chromatographic separation like paper, thin layer, Colom and demonstration of GC and HPLC instrumentation.

Course Code: C706**Sub: Practice School**

C706.1	Upon the completion of the course, the student shall be able to To develop literature review skill amongst students.
C706.2	Identification of problem & development of plane of work.
C706.3	To expose students on various pharmaceutical journals.
C706.4	Development of report writing skill.
C706.5	Submission of report to the supervisor.
C706.6	Preparation & submission of review report to different journals.



SEMESTER –VIII**Course Code: C801 Sub: Biostatistics and Research Methodology (TH)**

C801.1	To understand the applications of Biostatics in Pharmacy.
C801.2	erstand descriptive statistics, Graphics, Correlation, Regression, logistic regression Probability theory, Sampling technique, Parametric tests, Non Parametric tests, ANOVA,
C801.3	erstand the Design of Experiments, Phases of Clinical trials and Observational and Experimental studies,
C801.4	erstand SPSS, R and MINITAB statistical software's, analyzing the statistical data using Excel.
C801.5	he various statistical techniques to solve statistical problems
C801.6	Appreciate statistical techniques in solving the problems.

Course Code: C802 Sub: Social and Preventive Pharmacy (TH)

C802.1	Acquire high consciousness/realization of current issues related to health and pharmaceutical problems within the country and worldwide.
C802.2	Understand on preventive medicine on SARS, Ebola virus, influenza, acute respiratory infections and pneumonia, etc.
C802.3	Explain regarding various National health programs, its objectives, functioning and outcomes.
C802.4	To provide a critical way of thinking based on current healthcare development.
C802.5	Evaluate alternative ways of solving problems related to health and pharmaceutical issues.
C802.6	Explain regarding various community services in rural, urban and school health.

Course Code: C803 Sub: Pharma Marketing Management (TH)

C803.1	The course aims to provide an understanding of marketing concepts and techniques and their applications in the pharmaceutical industry.
C803.2	To study the Marketing environment, Industry and competitive analysis, Analyzing consumer buying behavior, industrial buying behavior.
C803.3	To study the Product management in pharmaceutical industry.
C803.4	To study the Methods, determinants of promotional mix, promotional budget.
C803.5	To study the Duties of PSR, purpose of detailing, selection and training, supervising, norms for customer calls, motivating, evaluating, compensation and future prospects of the PSR.
C803.6	An overview of DPCO (Drug Price Control Order) and NPPA (National Pharmaceutical Pricing Authority).



Course Code: C804 Sub: Pharmaceutical Regulatory Science (TH)

C804.1	Understand the process of drug discovery and development.
C804.2	Knowledge of the regulatory authorities and agencies governing the manufacture and sale of pharmaceuticals.
C804.3	Knowledge of the regulatory approval process
C804.4	Detailed understanding of registration in Indian and international markets
C804.5	In depth understanding of conduct and regulation of clinical trials
C804.6	Appreciate the terminologies and concepts used in pharmaceutical regulatory science.

Course Code: C805 Sub: Pharmacovigilance (TH)

C805.1	Students will be know History and development of Pharmacovigilance, drug safety monitoring importance.
C805.2	Students will use know National and international scenario of Pharmacovigilance, Dictionaries, coding and terminologies used in Pharmacovigilance, Detection of new adverse drug reactions and their assessment.
C805.3	Students will effectively apply principles of drugstore management and inventory control to medication use, International standards for classification of diseases and drugs, Adverse drug reaction reporting systems and communication in Pharmacovigilance..
C805.4	Students will be appreciate Methods to generate safety data during preclinical, clinical and post approval phases of drugs' life cycle, Drug safety evaluation in paediatrics, geriatrics, pregnancy and lactation.
C805.5	Students will engage in innovative activities by making use of the knowledge of Pharmacovigilance Program of India (PvPI) requirement for ADR reporting in India ICH guidelines for ICSR, PSUR, expedited reporting, pharmacovigilance planning.
C805.6	Students will be know CIOMS requirements for ADR reporting Writing case narratives of adverse events and their quality.

Course Code: C806 Sub: Quality Control and Standardization of Herbals

C806.1	Understand the WHO guidelines for QC of herbals
C806.2	Knowledge of quality assurance in herbal drug industry.
C806.3	Know the regulatory approval process of herbals in Indian market
C806.4	Know the regulatory approval process of herbals in International market market
C806.5	Know the registration process in Indian and International market
C806.6	Appreciate EU and ICH guidelines for QC of Herbals



Course Code: C807**Sub: Pharmacological Screening Methods**

C810.1	Students would have understood Appreciate the applications of various commonly used laboratory animals
C810.2	Students would have understood Appreciate and demonstrate the various screening methods used in preclinical research
C810.3	Students would have understood Design and execute a research hypothesis independently
C810.4	Students would have understood Appreciate and demonstrate the importance of biostatistics and research methodology
C810.5	Students would have understood preclinical studies in experimental animals including design, conduct and interpretations of results
C810.6	Students would have understood the Pre-clinical data analysis and interpretation using Students 't' test and One-way ANOVA

Course Code: C808**Sub: Advanced Instrumentation Techniques**

C811.1	Understand the principle of various analytical techniques.
C811.2	Knowledge of instrumentation and working of modern analytical instruments.
C811.3	Knowledge analysis of drugs using various analytical instruments.
C811.4	Understand the calibration of various analytical instruments.
C811.5	Understand the chromatographic separation and analysis of drugs.
C811.6	Understand the advanced instruments used and its applications in drug analysis.

Course Code: C809**Sub: Projects**

C813.1	Upon the completion of the course, the student shall be able to To develop literature review skill amongst students.
C813.2	To provide the critical way of thinking based on assigned project.
C813.3	To develop scientific thinking & build up a team work.
C813.4	The course will develop different equipment & machinaries operation skills.
C813.5	To expose the students about the way of research.
C813.6	Students will be able to improve their presentation skill.



**Course Outcomes of All Courses from 1st to 8th Sem
AY- 2021-22
SEMESTER –I**

Course Code: C101 Sub: Human Anatomy and Physiology-I (TH)

C101.1	Upon the completion of the course, the student shall be able to explain the basic anatomical terminologies.
C101.2	Describe the structure and functions of various organs of the human body.
C101.3	Describe the various homeostatic mechanisms.
C101.4	Explain the divisions of skeletal system.
C101.5	Explain the composition and function of body fluids.
C101.6	Appreciate coordinated working pattern of different organs of each system.

Course Code: C102 Sub: Pharmaceutical Analysis-I(TH)

C102.1	Upon the completion of the course, the student shall be able to Understand the principles of volumetric and electrochemical analysis.
C102.2	Demonstrate complexometric and non-aqueous titration that helps them in Performing practical.
C102.3	Expression of various concentrations and preparations.
C102.4	The course will develop different analytical skills.
C102.5	Understand the qualitative and quantitative estimations of chemical compounds.
C102.6	Differentiate the analytical techniques used in pharmaceuticals about Indian Pharmacopoeia and other reference books.

Course Code: C103 Sub: Pharmaceutics-I(TH)

C103.1	To Know the history of profession of pharmacy
C103.2	To understand the basics of different dosage forms, pharmaceutical incompatibilities and pharmaceutical calculations
C103.3	To understand the professional way of handling the prescription
C103.4	To study the preparation of various conventional dosage forms
C103.5	To study Pharmaceutical incompatibilities.
C103.6	To study the semisolid dosage form in detail.

Course Code: C104 Sub: Pharmaceutical Inorganic Chemistry(TH)

C104.1	Knowledge of the sources of impurities drugs and pharmaceuticals..
C104.2	Understand the methods to determine the impurities in inorganic drugs and pharmaceuticals.
C104.3	Understand the medicinal and pharmaceutical importance of acids, bases and buffers.
C104.4	Appreciate the medicinal and pharmaceutical importance of physiological ions.
C104.5	Knowledge of inorganic gastrointestinal agents and dental products.
C104.6	Understanding importance and applications of radiopharmaceuticals.



Course Code: C105**Sub: Communication Skills(TH)**

C105.1	Understand the behavioral needs for a Pharmacist to function effectively in the,
C105.2	Areas of pharmaceutical operation.
C105.3	Communicate effectively (Verbal and Non Verbal).
C105.4	Effectively manage the team as a team player.
C105.5	Develop interview skills.
C105.6	Develop Leadership qualities and essentials

Course Code: C106**Sub: Remedial Biology(TH)**

C106.1	Students would have understood the components of living world, structure and functional system of plant and animal kingdom
C106.2	Students would have understood know the classification and salient features of five kingdoms of life
C106.3	Students would have understood understand the basic components of anatomy & physiology of plant
C106.4	Students would have understood know understand the basic components of anatomy & physiology animal with special reference to human
C106.5	Students would have understood They would have understood the cell communication mechanism
C106.6	Students would have understood the Plants and mineral nutrition Photosynthesis Plant growth and development

Course Code: C107**Sub: Human Anatomy and Physiology-I (PR)**

C107.1	Upon the completion of the course, the student shall be able to describe the different types of tissues
C107.2	Understand complete bones of human body
C107.3	Study practical aspects of blood
C107.4	Understand the practical aspect of RBC and WBC count
C107.5	Describe the procedure and significance of bleeding and clotting time
C107.6	Know the practical aspects of heart rate and blood pressure

Course Code: C108**Sub: Pharmaceutical Analysis-I (PR)**

C108.1	Upon the completion of the course, the student shall be able to Able to apply volumetric analytical techniques for analysis of chemical compounds.
C108.2	Able to apply electrochemical analytical techniques for analysis of chemical compounds.
C108.3	Able to identify and locate the impurities through a different technique like a limit test.
C108.4	The students will be able to apply the use of different reference books for different fundamental techniques of analysis
C108.5	By taking regular viva-voce we can analyze the achievements of practical knowledge.
C108.6	Expected to appraise the general characteristics of the analytical method in drug analysis.



Course Code: C109**Sub: Pharmaceutics-I (PR)**

C109.1	To study the various liquid dosage form.(Syrup, Elixir, Solution)
C109.2	To study the various Biphasic dosage form.(Suspension, Emulsion)
C109.3	To study the Powder dosage form.
C109.4	To study the various Internally use formulation.
C109.5	To study the Externally use formulation.
C109.6	To study the suppository.

Course Code: C110**Sub: Pharmaceutical Inorganic Chemistry (PR)**

C110.1	Knowledge of the sources of impurities and their detection in drugs and pharmaceuticals.
C110.2	Understand the methods for identification of some important inorganic compounds
C110.3	Understand the medicinal and pharmaceutical importance of acids, bases and buffers.
C110.4	Knowledge of some special test to assess the purity of inorganic compounds.
C110.5	Knowledge of preparation of some inorganic compounds.
C110.6	Appreciate the pharmaceutical applications of inorganic compounds.

Course Code: C111**Sub: Communication Skills(PR)**

C111.1	Students will be able to understand and apply knowledge of human communication and language processes as they occur across various contexts.
C111.2	Students will be able to understand and evaluate key practical approaches used in the interdisciplinary field of communication.
C111.3	Students will be able to understand the research methods associated with the study of human communication.
C111.4	Students will be able to find, use, and evaluate primary academic writing associated with the communication discipline.
C111.5	Students will develop knowledge, skills, and judgment around human communication that facilitate their ability to work collaboratively with others.
C111.6	Students will be able to communicate effectively orally and in writing.

Course Code: C112**Sub: Remedial Biology(PR)**

C112.1	Students would have understood the Microscopic study and identification of tissues pertinent to Stem, Root Leaf, seed, fruit and flower
C112.2	Students would have observed the general anatomy of root, stem, leaf
C112.3	Students would have observed basis of classification. Salient features of Monera, Protista, Fungi, Animalia and Plantae, Virus
C112.4	Students would have understood the would have Identification of bones
C112.5	Students would Determination of blood group blood pressure tidal volume
C112.6	Students would have Study of cell and its inclusions



SEMESTER –II**Course Code: C201 Sub: Human Anatomy and Physiology-II (TH)**

C201.1	Explain the gross morphology, structure and functions of various organs of the human body.
C201.2	Describe the various homeostatic mechanisms and their imbalances.
C201.3	Identify the various tissues and organs of different systems of human body.
C201.4	Perform the hematological tests like blood cell counts, haemoglobin estimation, bleeding /clotting time etc and also record blood pressure, heart rate, pulse and respiratory volume.
C201.5	Appreciate coordinated working pattern of different organs of each system
C201.6	Appreciate the interlinked mechanisms in the maintenance of normal functioning (homeostasis) of human body.

Course Code: C202 Sub: Pharmaceutical Organic Chemistry-I (TH)

C202.1	Understanding the type of isomerism of the organic compound.
C202.2	Ability to write the structure, name of the organic compounds.
C202.3	Understanding of the preparation methods of the organic compounds.
C202.4	Understanding of the reaction, name the reaction and orientation of reactions
C202.5	Understanding of account for reactivity/stability of compounds
C202.6	Understanding of identify/confirm the identification of organic compound

Course Code: C203 Sub: Biochemistry-I (TH)

C203.1	Upon the completion of the course, the student shall be able to learned about chemistry and the biological importance of biological Macromolecule.
C203.2	Understand fundamental principles of biochemistry, including major pathways of Metabolism.
C203.3	Understand biosynthesis, replication transcription, and translation.
C203.4	Explain qualitative and quantitative understanding of biomolecule structure, the enzyme catalyzes a chemical reaction that transforms biomolecule.
C203.5	Explain different types of macromolecule their structure and functions.
C203.6	Explain the metabolism of carbohydrate, lipid, amino acid and their role in our body.

Course Code: C204 Sub: Pathophysiology (TH)

C204.1	Upon the completion of the course, the student shall be able to Describe the etiology of the selected disease states
C204.2	Name the signs and symptoms of the diseases
C204.3	Mention the various diagnostic tests of the diseases
C204.4	Explain the treatment of various diseases
C204.5	Study the pathogenesis of the selected disease states
C204.6	Describe of pathophysiology of different diseases



Course Code: C205 Sub: Computer Application in Pharmacy (TH)

C205.1	Upon the completion of the course, the student shall be able to know the various types of application of computers in pharmacy
C205.2	Student should know the various types of databases.
C205.3	Student should know the various applications of databases in pharmacy
C205.4	Student should know Web technologies like HTML, XML, CSS and Programming languages
C205.5	Student should know Bioinformatics, Databases, Concept of Bioinformatics, Impact of Bioinformatics in Vaccine Discovery
C205.6	Student should know Chromatographic data analysis(CDS), Laboratory Information management System (LIMS) and Text Information Management System(TIMMS)

Course Code: C206 Sub: Environmental Science (TH)

C206.1	Upon the completion of the course, the student shall be able to gain in-depth knowledge on natural processes that sustain life, and govern economy.
C206.2	Predict the consequences of human actions on the web of life, global economy and quality of human life.
C206.3	Develop critical thinking for shaping strategies (scientific, social, economic and legal) for environmental protection and conservation of biodiversity, social equity and sustainable development.
C206.4	Acquire values and attitudes towards understanding complex environmental economic social challenge.
C206.5	Participating actively in solving current environmental problems and preventing the future ones.
C206.6	Adopt sustainability as a practice in life, society and industry

Course Code: C207 Sub: Human Anatomy and Physiology-II (PR)

C207.1	To study the integumentary and special senses using specimen, models, etc.,
C207.2	To demonstrate the general neurological examination
C207.3	To examine the different types of taste
C207.4	Study of digestive, respiratory, cardiovascular systems, urinary and reproductive systems with the help of models, charts and specimens.
C207.5	Study of family planning devices and pregnancy diagnosis test.
C207.6	Demonstration of total blood count by cell analyser.



Course Code: C208 Sub: Pharmaceutical Organic Chemistry-I (PR)

C208.1	Understand the test used for detection of aliphatic/aromatic compounds and saturated/unsaturated organic compounds.
C208.2	Knowledge of detection of elements like Nitrogen, Sulphur and Halogen.
C208.3	Understand the detection of Functional group of organic compound.
C208.4	Understand the importance and application of Melting point/Boiling point of organic compounds in qualitative analysis
C208.5	Knowledge of preparation of solid derivatives from organic compounds
C208.6	Able to construct molecular models of organic compounds

Course Code: C209 Sub: Biochemistry (PR)

C209.1	Upon the completion of the course, the student shall be able to Understand the qualitative test for carbohydrates.
C209.2	Understand the qualitative test for protein.
C209.3	Understand the determination of glucose, total cholesterol, and creatinine in the Blood.
C209.4	Determine the salivary amylase activity and effect of temperature on it.
C209.5	Quantitative analysis of reducing sugar and protein.
C209.6	Understand the effects of substrate concentration on salivary amylase activity.

Course Code: C210 Sub: Computer Application in Pharmacy (PR)

C205.1	Upon the completion of the course, the student shall be able to design a questionnaire using a word processing package to gather information about a particular disease.
C205.2	Create a HTML web page to show personal information.
C205.3	Retrieve the information of a drug and its adverse effects using online tools
C205.4	Create a database in MS Access to store the patient information with the required fields Using access
C205.5	Creating and working with queries in MS Access
C205.6	Generating report and printing the report from patient database and Creating invoice table using – MS Access.

SEMESTER –III**Course Code: C301 Sub: Pharmaceutical Organic Chemistry-II (TH)**

C301.1	Understand the introduction, orbital picture, resonance, reactions and effects of substituents of benzene.
C301.2	Explain acidity, effect of substituents, reaction and qualitative test of phenols. Also elucidate basicity, effect of substituents, reaction of aromatic amines
C301.3	Explain acidity, effect of substituents, reaction of Aromatic Acids.
C301.4	Understand the chemistry of fats and oils. And various analytical constants.
C301.5	Knowledge of synthesis, reactions and structure and medicinal uses of some polynuclear hydrocarbons.
C301.6	Understand the theory of cycloalkanes and chemistry of fats and oils.



Course Code: C302**Sub: Physical Pharmaceutics-I (TH)**

C302.1	Understand principles involved in solubility of drugs.
C302.2	Understand the states of matter, changes therein & their applications.
C302.3	Appreciate the methods of determination & application of some physicochemical properties.
C302.4	Understand the principles & applications of surface & interfacial phenomenon.
C302.5	Understand the principles & applications of complexation & protein binding.
C302.6	Understand the principles, preparation & applications of buffers & isotonic solutions.

Course Code: C303**Sub: Pharmaceutical Microbiology (TH)**

C303.1	Upon the completion of the course, the student shall be able to understand the importance and implementation of sterilization & disinfectant in the pharmaceutical industry.
C303.2	Know the general bacteriology and Understand methods of identification.
C303.3	Understand methods of identification, isolation, cultivation, and preservation of bacteria & viruses.
C303.4	Understand the designing of the aseptic area and various methods of the microbiological assay.
C303.5	Know about microbial spoilage and how to preserve the pharmaceutical product from microbial spoilage.
C303.6	Understand the cell culture technology and its application in the pharmaceutical industry.

Course Code: C304**Sub: Pharmaceutical Engineering (TH)**

C304.1	To know various unit operations used in Pharmaceutical industries.
C304.2	To understand the material handling techniques
C304.3	To perform various processes involved in pharmaceutical manufacturing process.
C304.4	To carry out various test to prevent environmental pollution.
C304.5	To appreciate and comprehend significance of plant lay out design for optimum use of resources.
C304.6	To appreciate the various preventive methods used for corrosion control in Pharmaceutical industries.

Course Code: C305**Sub: Pharmaceutical Organic Chemistry-II (PR)**

C305.1	Students should be able to synthesize the various organic compounds and understands the reaction mechanism involved in the synthesis.
C305.2	Students should be able to synthesize the various organic compounds and understands the reaction mechanism involved in the synthesis.
C305.3	Calculate the percentage yields of the products obtained by synthesis.
C305.4	Purify organic compounds using various procedures like recrystallization.
C305.5	Purify organic compounds using steam distillation.
C305.6	Apply recrystallization and steam distillation methods for the purification of synthesized organic compounds.



Course Code: C306**Sub: Physical Pharmaceutics-I (PR)**

C306.1	Understand practical aspects of solubility of drugs.
C306.2	Understand partition coefficient of some drugs.
C306.3	Understand Surface tension &HLB number.
C306.4	Understand adsorption isotherms.
C306.5	Understand critical micelle concentration of surfactants.
C306.6	Understand some complexes.

Course Code: C307**Sub: Pharmaceutical Microbiology(PR)**

C307.1	Upon the completion of the course, the student shall be able to Understand perform staining of bacteria.
C307.2	Understand identification of bacteria.
C307.3	Perform Sub culturing of bacteria.
C307.4	Isolate pure cultures of bacteria by various techniques.
C307.5	Perform the microbial assay of antibiotics by various methods.
C307.6	Perform the sterility testing of pharmaceuticals.

Course Code: C308**Sub: Pharmaceutical Engineering (PR)**

C308.1	Understand Construction of drying curves.
C308.2	To determine the radiation constant of brass, iron, unpainted and painted glass.
C308.3	To determine the overall heat transfer coefficient by heat exchanger.
C308.4	To verify the laws of size reduction using ball mill and determining Kicks, Rittinger's, Bond's coefficients, power requirement and critical speed of Ball Mill.
C308.5	To study the effect of time on the Rate of Crystallization.
C308.6	To calculate the uniformity Index for given sample by using Double Cone Blender.

SEMESTER –IV**Course Code: C401****Sub: Pharmaceutical Organic Chemistry-III (TH)**

C401.1	To understand methods of preparation of organic compounds.
C401.2	To understand properties of organic compounds.
C401.3	Explain stereo chemical aspects of organic compounds.
C401.4	Explain stereo chemical reactions of organic compounds.
C401.5	To know medicinal uses of organic compounds.
C401.6	To know other applications of organic compounds.



Course Code: C402**Sub: Medicinal Chemistry-I (TH)**

C402.1	To Gain fundamental knowledge on the structure, chemistry and therapeutic value of drugs.
C402.2	To study Structure activity relationships of drugs
C402.3	Importance of physicochemical properties and metabolism of drugs
C402.4	Understand the chemistry of drugs with respect to their pharmacological activity
C402.5	Study the drug metabolic pathways, adverse effect and therapeutic value of drugs
C402.6	Student Should draw chemical synthesis of drugs.

Course Code: C403**Sub: Physical Pharmaceutics-II (TH)**

C403.1	Understand the colloidal dispersions & their properties.
C403.2	Understand the principles of rheology & their pharmaceutical applications with respect to flow of fluids.
C403.3	Understand the principles of rheology & their pharmaceutical applications with respect to deformation of solids.
C403.4	Study coarse dispersions, their formulation & stability aspects.
C403.5	Study the principles of micromeritics & their pharmaceutical applications.
C403.6	Understand the principles of chemical kinetics & use them for stability testing and determination of expiry date of formulations.

Course Code: C404**Sub: Pharmacology-I (TH)**

C404.1	Students would have understood the pharmacological actions of different categories of drugs.
C404.2	They would have studied in detailed about mechanism of drug action at organ system/sub cellular/macromolecular levels.
C404.3	They would have understood the application of basic pharmacological knowledge in the prevention and treatment of various diseases
C404.4	They would have understood the signal transduction mechanism of various receptors
C404.5	Students would have understood Drug discovery and clinical evaluation of new drugs.
C404.6	Students would got an idea about Pharmacology of drugs acting on peripheral nervous system and CNS.

Course Code: C405**Sub: Pharmacognosy and Phytochemistry-I (TH)**

C405.1	To know the techniques in the cultivation and production of crude drugs
C405.2	To know the crude drugs, their uses and chemical nature
C405.3	To know the evaluation techniques for the herbal drugs
C405.4	To carry out the microscopic and morphological evaluation of crude drugs
C405.5	To know the Plant tissue culture techniques and their applications
C405.6	To know the different systems of medicines and plant products, primary and secondary metabolites.



Course Code: C406**Sub: Medicinal Chemistry-I (PR)**

C406.1	Study of different Preparation of drugs/ intermediates
C406.2	Study of different Assay of drugs
C406.3	To study Determination of Partition coefficient
C406.4	To determine the percentage purity of drug .
C406.5	Synthesis of drug by Microwave oven .
C406.6	Synthesis of drug by conventional method

Course Code: C407**Sub: Physical Pharmaceutics-II(PR)**

C407.1	Study the micromeritic properties of pharmaceutical samples.
C407.2	Understand viscosity of pharmaceuticals using different viscometers.
C407.3	Study the effect of formulative variables on properties of coarse dispersions.
C407.4	Study of reaction rate constants.
C407.5	Understand derived properties of pharmaceutical samples.
C407.6	Appreciate the importance of accelerated stability studies.

Course Code: C408**Sub: Pharmacognosy and Phytochemistry-I (PR)**

C408.1	To study the analysis of crude drugs by chemical tests.
C408.2	To determine the various leaf constant of crude drugs.
C408.3	To determine of number of starch grains by Lycopodium spore method
C408.4	To determine of Extractive values & Ash value of crude drugs.
C408.5	To determine of moisture content of crude drugs.
C408.6	To determine of swelling index and foaming.

Course Code: C408**Sub: Pharmacology-I (PR)**

C408.1	Students would Introduced to experimental pharmacology , Commonly used instruments and common laboratory animals in experimental pharmacology
C408.2	Students would have observed the effect of drugs on animals by simulated experiments.
C408.3	Students would got an idea about correlation of pharmacology with other bio medical sciences.
C408.4	Students would be trained with Common laboratory techniques. Blood withdrawal, serum and plasma separation, anesthetics and euthanasia used for animal studies.
C408.5	Students would got an idea about different routes of drugs administration.
C408.6	Students would have study about various animal models used for ANS and CNS studies.



SEMESTER –V**Course Code: C501****Sub: Medicinal Chemistry-II (TH)**

C501.1	To impart fundamental knowledge on the structure, chemistry and therapeutic value of drugs
C501.2	To understand the chemistry of drugs with respect to their pharmacological activity
C501.3	To understand the Mechanism of action of structure on different receptor or non-receptor
C501.4	To understand the drug metabolic pathways, adverse effect and side effect of drugs
C501.5	To know the Structural Activity Relationship of different class of drugs with respective of its structure
C501.6	To study the chemical synthesis of selected drugs by chemical reactions involved in it

Course Code: C502**Sub: Industrial Pharmacy-I (TH)**

C502.1	Know the various pharmaceutical dosage forms and their manufacturing techniques.
C502.2	Know various considerations in development of pharmaceutical dosage forms.
C502.3	Formulate solid, liquid and semisolid dosage forms and evaluate them for their quality.
C502.4	Explain types, advantages and limitations, preformulation factors, production procedure, and quality control tests of parenteral products.
C502.5	Understand the various cosmetic dosage forms like lipsticks, shampoos, cold cream and vanishing cream, tooth pastes, hair dyes and sunscreens.
C502.6	Explain materials used for packaging of pharmaceutical products.

Course Code: C503**Sub: Pharmacology-II (TH)**

C503.1	Students would have understood the classification of drugs acting on different systems of body.
C503.2	Students would have understood the mechanism of drug action and its relevance in the treatment of different diseases
C503.3	Students would have understood the therapeutic effects, clinical uses, side effects and contraindications of drug acting on different systems of body
C503.4	They would appreciate the newer targets of several disease conditions for treatment.
C503.5	They would have understood the cell communication mechanism
C503.6	Students would have understood the Addition, emphasis on the basic concepts of bioassay.



Course Code: C504 Sub: Pharmacognosy and Phytochemistry-II (TH)

C 504.1	To know the modern extraction techniques, characterization and identification of the herbal drugs and phytoconstituents
C 504.2	To understand the preparation and development of herbal formulation.
C 504.3	To understand the herbal drug interactions
C 504.4	To carryout isolation and identification of phytoconstituents
C 504.5	To understand application of latest techniques likes spectroscopy, chromatography and electrophoresis
C 504.6	To know the metabolic pathways in higher plants and their determination

Course Code: C505 Sub: Pharmaceutical Jurisprudence (TH)

C505.1	To Understand basic knowledge on important legislations related to the profession of pharmacy in India.
C505.2	To Understand Various Indian pharmaceutical Acts and Laws
C505.3	To Understand the regulatory authorities and agencies governing the manufacture and sale of pharmaceuticals
C505..4	To Understand the code of ethics during the pharmaceutical practice
C505.5	To Understand Basic Knowledge about Intellectual property rights
C505.6	To Understand the Pharmaceutical legislations and their implications in the development and marketing of pharmaceuticals

Course Code: C506 Sub: Industrial Pharmacy-I (PR)

C506.1	Preformulation studies on paracetamol/aspirin/or any other drug.
C506.2	Prepare and evaluate paracetamol tablets.
C506.3	Prepare and evaluate aspirin tablets.
C506.4	Perform film coating of tables/granules.
C506.5	Prepare and evaluate Tetracycline capsules.
C506.6	Prepare Calcium gluconate injection.
C506.7	Conduct quality control test of marketed tablets and capsules (as per IP).

Course Code: C507 Sub: Pharmacology-II (PR)

C507.1	They would be trained with isolation of different organs/tissues from the laboratory animals by simulated experiments
C507.2	They would have observed the various receptor actions using isolated tissue preparation
C507.3	They would have observed the in-vitro pharmacology and physiological salt solutions.
C507.4	They would have observed DRC of different organs/tissues from the laboratory animals by simulated experiments
C507.5	They would have observed Bioassay of different organs/tissues from the laboratory animals by simulated experiments
C507.6	They would have Determination of PD ₂ value & Determination of PA ₂ value



Course Code: C508 Sub: Pharmacognosy and Phytochemistry-II(PR)

C508.1	To study morphology, microscopy and powder microscopy of crude drugs
C508.2	To study extraction, isolation and detection of active principles of crude drugs
C508.3	To understand separation of active chemical constituents by chromatography
C508.4	To perform Thin Layer Chromatography of herbal extracts
C508.5	To perform distillation of volatile oils and their detections
C508.6	To analyze crude drug by chemical tests

SEMESTER –VI**Course Code: C601 Sub: Medicinal Chemistry-III (TH)**

C601.1	Understand detailed aspects of the design & development of drugs including history, classification, nomenclature, structure-activity relationship (SAR), of Antibiotics
C601.2	Understand mechanism of action, adverse effects, therapeutic uses, degradation pathways of Antibiotics such as penicillin, cephalosporins, tetracyclines, macrolides, aminoglycosides, Chloramphenicol.
C601.3	Explain reaction mechanisms involved in the synthesis of medicinally important compounds.
C601.4	Discuss the Classification, SAR, Mechanism of action, adverse effects, Therapeutic uses and metabolism of anti-tubercular agents, Anti-viral agents, Anti-fungal drugs, Drugs acting on UTI, Sulphonamides & sulphones.
C601.5	Know the general aspects of drug design and development, various aspects of CADD and QSAR parameters.
C601.6	Understand and Explain various techniques of combinatorial chemistry and understand applications of combinatorial, antimalarials,

Course Code: C602 Sub: Pharmacology-III (TH)

C602.1	Students would have studied elaborately on mechanism of drug action and its relevance in the treatment of different infectious diseases
C602.2	Students comprehended the principles of toxicology and treatment of various poisonings and
C602.3	Students came across the methods of toxicity studies
C602.4	Students studied about symptoms of several poisonings
C602.5	Students studied about treatment of several poisonings
C602.6	Students understood the chrono pharmacology & Chemotherapy.

Course Code: C603 Sub: Herbal Drug Technology(TH)

C603.1	To understand raw material as source of herbal drugs from cultivation to herbal drug product
C603.2	To know the WHO and ICH guidelines for evaluation of herbal drugs
C603.3	To know the herbal cosmetics, natural sweeteners, nutraceuticals
C603.4	To appreciate patenting of herbal drugs and GMP.
C603.5	To know Indian Systems of medicines
C603.6	To know plant based industries and institutions involved in work on medicinal and aromatic plants in India.



Course Code: C604 Sub: Biopharmaceutics and Pharmacokinetics (TH)

C604.1	Define the basic concepts in biopharmaceutics and pharmacokinetics.
C604.2	Determine the effect of Pharmacokinetic (ADME) parameters on the biological effects of the drug.
C604.3	Carry out biopharmaceutical studies and use data so obtained in the development of new drugs or dosage forms.
C604.4	Design dosage regimens for patients based on calculated pharmacokinetic parameters.
C604.5	Design Bioavailability and Bioequivalence studies of new drugs or dosage forms.
C604.6	Evaluate drug-protein binding as a tool to predict pharmacokinetics of drugs.

Course Code: C605 Sub: Pharmaceutical Biotechnology(TH)

C605.1	To understand the importance of Immobilized enzymes in Pharmaceutical Industries.
C605.2	To study the Genetic engineering applications in relation to production of pharmaceuticals
C605.3	To study the Importance of Monoclonal antibodies in Industries.
C605.4	To appreciate the use of microorganisms in fermentation technology.
C605.5	To study the Collection, Processing and Storage of whole human blood, dried human plasma, plasma Substitutes.
C605.6	To study the Immuno blotting techniques- ELISA, Western blotting, Southern blotting.

Course Code: C606 Sub: Pharmaceutical Quality Assurance(TH)

C606.1	To understand the importance of C GMP aspects in Pharmaceutical Industries.
C606.2	To appreciate importance of documentation.
C606.3	To understand scope of regulatory affairs applications to pharmaceutical industries.
C606.4	To understand scope of quality certification applications to pharmaceutical industries.
C606.5	To understand responsibilities of QA departments.
C606.6	To understand responsibilities of QC departments.

Course Code: C607 Sub: Medicinal Chemistry-III (PR)

C607.1	Understand how to make correct use of various equipment & take safety measures while working in a medicinal chemistry laboratory.
C607.2	Synthesize, and understand reaction mechanisms involved in the synthesis of medicinally important compounds and perform the Assay of drugs.
C607.3	To study the interpretation of UV spectra of unknown drugs.
C607.4	Comprehend the techniques of microwave-assisted synthesis and explain applications of microwave-assisted synthesis in pharmaceutical research.
C607.5	Able to draw structures and reactions using Chem draw.
C607.6	Purify Synthesized compounds using various procedures like recrystallization.



Course Code: C608**Sub: Pharmacology-III (PR)**

C608.1	Students would be trained with isolation of different organs/tissues from the laboratory animals by simulated experiments
C608.2	Students would have Dose calculation in pharmacological experiments
C608.3	Students would have Determination of acute oral toxicity (LD50) of a drug from a given data
C608.4	Students would be trained with Calculation of pharmacokinetic parameters from a given data
C608.5	Students would be trained with Biostatistics methods in experimental pharmacology
C608.6	Students would have Calculation of pharmacokinetic parameters from a given data

Course Code: C609**Sub: Herbal Drug Technology(PR)**

C609.1	To perform preliminary phytochemical screening of crude drugs
C609.2	To evaluate natural excipients
C609.3	To prepared different herbal formulations and their evaluation as per pharmacopoeial standards
C609.4	To analyze monographs of herbal drugs from pharmacopoeia
C609.5	To prepared ayurvedic formulations and their evaluation
C609.6	To determine aldehyde content, phenol content and total alkaloid of crude drugs

SEMESTER –VII**Course Code: C701****Sub: Instrumental Methods of Analysis (TH)**

C701.1	Understand the interaction of matter with electromagnetic radiations and its applications in drug analysis and principle, instrumentation and application of UV- Vis, Atomic Absorption and Emission Spectroscopy.
C701.2	Understanding principles, instrumentation and applications of Infrared spectroscopy.
C701.3	Understand principle, instrumentation and application of Flame Photometry, Flourimetry, Phosphorimetry and Nephelometry.
C701.4	To understand the basic technique of chromatography. Understand the chromatographic separation like adsorption, partition, Column, TLC, and electrophoresis in the analysis of drug.
C701.5	Understand the chromatographic separation like GC, HPLC, Ion Exchange, Gel chromatography in the analysis of drug.
C701.6	Understand the chromatographic separation like paper, thin layer, Column.

Course Code: C702**Sub: Industrial Pharmacy-II (TH)**

C702.1	Understand the importance and working of pilot plant.
C702.2	Understand the scale up of pharmaceutical dosage forms.
C702.3	Understand the process of technology transfer.
C702.4	Appreciate importance and applications of process of technology transfer.
C702.5	Knowledge of different Laws and Acts that regulate pharmaceutical industry.
C702.6	Understand the approval process and regulatory requirements for drug products.



Course Code: C703**Sub: Pharmacy Practice (TH)**

C 703.1	Students will demonstrate knowledge of and ability to use principles of therapeutics, quality improvement, communication, economics, health behavior, social and administrative aspects, health policy and legal issues in the practice of pharmacy.
C 703.2	Students will use knowledge of drug distribution methods in hospital and apply it in the practice of pharmacy.
C 703.3	Students will effectively apply principles of drugstore management and inventory control to medication use.
C 703.4	Students will provide patient-centered care to diverse patients using the best available evidence and monitor drug therapy of patient through medication chart review, obtain medication history interview and counsel the patients, identify drug related problems.
C 703.5	Students will engage in innovative activities by making use of the knowledge of clinical trials.
C 703.6	Students will exhibit professional ethics by producing safe and appropriate medication use throughout society..

Course Code: C704**Sub: Novel Drug Delivery Systems (TH)**

C704.1	To understand various approaches for development of novel drug delivery systems.
C704.2	To understand the criteria for selection of drugs for the development of Novel drug delivery systems
C704.3	To understand the criteria for selection of polymers for the development of Novel drug delivery systems
C704.4	To understand the criteria for selection of drugs formulation and evaluation of Novel drug delivery systems
C704.5	To understand the criteria for selection of polymers formulation and evaluation of Novel drug delivery systems
C704.6	To understand the concepts and approaches to liposomes, niosomes, nanoparticles, monoclonal antibodies and their applications.

Course Code: C705**Sub: Instrumental Methods of Analysis (PR)**

C705.1	Understand the estimation of drugs by colorimetry and Simultaneous estimation of drugs by UV spectroscopy.
C705.2	Understand the Estimation of quinine sulfate by fluorimetry and the Estimation of sodium & potassium by flame photometry.
C705.3	Understand the Estimation of chlorides and sulphates by nepheloturbidometry.
C705.4	Understand the chromatographic separation like adsorption, partition, Colum, TLC, and electrophoreses in the analysis of drug
C705.5	Understand the chromatographic separation like GC, HPLC, Ion Exchange Gel in the analysis of drug
C705.6	Understand the chromatographic separation like paper, thin layer, Colom and demonstration of GC and HPLC instrumentation.



Course Code: C706**Sub: Practice School**

C706.1	Upon the completion of the course, the student shall be able to To develop literature review skill amongst students.
C706.2	Identification of problem & development of plane of work.
C706.3	To expose students on various pharmaceutical journals.
C706.4	Development of report writing skill.
C706.5	Submission of report to the supervisor.
C706.6	Preparation & submission of review report to different journals.

SEMESTER –VIII**Course Code: C801****Sub: Biostatistics and Research Methodology (TH)**

C801.1	To understand the applications of Biostatics in Pharmacy.
C801.2	erstand descriptive statistics, Graphics, Correlation, Regression, logistic regression Probability theory, Sampling technique, Parametric tests, Non Parametric tests, ANOVA,
C801.3	erstand the Design of Experiments, Phases of Clinical trials and Observational and Experimental studies,
C801.4	erstand SPSS, R and MINITAB statistical software's, analyzing the statistical data using Excel.
C801.5	he various statistical techniques to solve statistical problems
C801.6	Appreciate statistical techniques in solving the problems.

Course Code: C802**Sub: Social and Preventive Pharmacy (TH)**

C802.1	Acquire high consciousness/realization of current issues related to health and pharmaceutical problems within the country and worldwide.
C802.2	Understand on preventive medicine on SARS, Ebola virus, influenza, acute respiratory infections and pneumonia, etc.
C802.3	Explain regarding various National health programs, its objectives, functioning and outcomes.
C802.4	To provide a critical way of thinking based on current healthcare development.
C802.5	Evaluate alternative ways of solving problems related to health and pharmaceutical issues.
C802.6	Explain regarding various community services in rural, urban and school health.



Course Code: C803 Sub: Pharma Marketing Management (TH)

C803.1	The course aims to provide an understanding of marketing concepts and techniques and their applications in the pharmaceutical industry.
C803.2	To study the Marketing environment, Industry and competitive analysis, Analyzing consumer buying behavior, industrial buying behavior.
C803.3	To study the Product management in pharmaceutical industry.
C803.4	To study the Methods, determinants of promotional mix, promotional budget.
C803.5	To study the Duties of PSR, purpose of detailing, selection and training, supervising, norms for customer calls, motivating, evaluating, compensation and future prospects of the PSR.
C803.6	An overview of DPCO (Drug Price Control Order) and NPPA (National Pharmaceutical Pricing Authority).

Course Code: C804 Sub: Pharmaceutical Regulatory Science (TH)

C804.1	Understand the process of drug discovery and development.
C804.2	Knowledge of the regulatory authorities and agencies governing the manufacture and sale of pharmaceuticals.
C804.3	Knowledge of the regulatory approval process
C804.4	Detailed understanding of registration in Indian and international markets
C804.5	In depth understanding of conduct and regulation of clinical trials
C804.6	Appreciate the terminologies and concepts used in pharmaceutical regulatory science.

Course Code: C805 Sub: Pharmacovigilance (TH)

C805.1	Students will be know History and development of Pharmacovigilance, drug safety monitoring importance.
C805.2	Students will use know National and international scenario of Pharmacovigilance, Dictionaries, coding and terminologies used in Pharmacovigilance, Detection of new adverse drug reactions and their assessment.
C805.3	Students will effectively apply principles of drugstore management and inventory control to medication use, International standards for classification of diseases and drugs, Adverse drug reaction reporting systems and communication in Pharmacovigilance..
C805.4	Students will be appreciate Methods to generate safety data during pre clinical, clinical and post approval phases of drugs' life cycle, Drug safety evaluation in paediatrics, geriatrics, pregnancy and lactation.
C805.5	Students will engage in innovative activities by making use of the knowledge of Pharmacovigilance Program of India (PvPI) requirement for ADR reporting in India ICH guidelines for ICSR, PSUR, expedited reporting, pharmacovigilance planning.
C805.6	Students will be know CIOMS requirements for ADR reporting Writing case narratives of adverse events and their quality.



Course Code: C806 Sub: Quality Control and Standardization of Herbals

C806.1	Understand the WHO guidelines for QC of herbals
C806.2	Knowledge of quality assurance in herbal drug industry.
C806.3	Know the regulatory approval process of herbals in Indian market
C806.4	Know the regulatory approval process of herbals in International market market
C806.5	Know the registration process in Indian and International market
C806.6	Appreciate EU and ICH guidelines for QC of Herbals

Course Code: C807 Sub: Pharmacological Screening Methods

C810.1	Students would have understood Appreciate the applications of various commonly used laboratory animals
C810.2	Students would have understood Appreciate and demonstrate the various screening methods used in preclinical research
C810.3	Students would have understood Design and execute a research hypothesis independently
C810.4	Students would have understood Appreciate and demonstrate the importance of biostatistics and research methodology
C810.5	Students would have understood preclinical studies in experimental animals including design, conduct and interpretations of results
C810.6	Students would have understood the Pre-clinical data analysis and interpretation using Students 't' test and One-way ANOVA

Course Code: C808 Sub: Advanced Instrumentation Techniques

C811.1	Understand the principle of various analytical techniques.
C811.2	Knowledge of instrumentation and working of modern analytical instruments.
C811.3	Knowledge analysis of drugs using various analytical instruments.
C811.4	Understand the calibration of various analytical instruments.
C811.5	Understand the chromatographic separation and analysis of drugs.
C811.6	Understand the advanced instruments used and its applications in drug analysis.

Course Code: C809 Sub: Projects

C813.1	Upon the completion of the course, the student shall be able to To develop literature review skill amongst students.
C813.2	To provide the critical way of thinking based on assigned project.
C813.3	To develop scientific thinking & build up a team work.
C813.4	The course will develop different equipment & machinaries operation skills.
C813.5	To expose the students about the way of research.
C813.6	Students will be able to improve their presentation skill.



3.1.1: CO-PO Matrix of Courses**ANNEXURE I: PROGRAM OUTCOMES**

- 1. Pharmacy Knowledge:** Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioral, social, and administrative pharmacy sciences; and manufacturing practices.
- 2. Planning Abilities:** Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.
- 3. Problem analysis:** Utilize the principles of scientific enquiry, thinking analytically, clearly and critically, while solving problems and making decisions during daily practice. Find, analyze, evaluate and apply information systematically and shall make defensible decisions.
- 4. Modern tool usage:** Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitations.
- 5. Leadership skills:** Understand and consider the human reaction to change, motivation issues, leadership and team-building when planning changes required for fulfillment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and well-being.
- 6. Professional Identity:** Understand, analyze and communicate the value of their professional roles in society (e.g. health care professionals, promoters of health, educators, managers, employers, employees).
- 7. Pharmaceutical Ethics:** Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behavior that recognizes cultural and personal variability in values, communication and lifestyles. Use ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.
- 8. Communication:** Communicate effectively with the pharmacy community and with society at large, such as, being able to comprehend and write effective reports, make effective presentations and documentation, and give and receive clear instructions.
- 9. The Pharmacist and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional pharmacy practice.
- 10. Environment and sustainability:** Understand the impact of the professional pharmacy solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- 11. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. Self-assessed and use feedback effectively from others to identify learning needs and to satisfy these needs on an ongoing basis.



Academic Year 2019-20

B. Pharm. Sem.-I**C101: Human Anatomy and Physiology-I (TH)**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C101.1	H	-	-	-	-	L	L	H	H	M	M
C101.2	H	-	-	-	-	L	L	H	H	M	M
C101.3	H	-	-	-	-	-	-	M	M	M	M
C101.4	H	-	-	-	-	L	L	H	H	M	L
C101.5	H	-	-	-	-	-	L	H	H	M	L
C101.6	H	-	-	-	-	L	-	H	H	M	M
Avg.	3.00	-	-	-	-	1.00	1.00	2.83	2.83	3.00	1.66

C102: Pharmaceutical Analysis-I (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C102.1	M	H	M	L	-	L	-	-	L	L	M
C102.2	H	L	L	L	-	L	L	-	-	M	L
C102.3	M	H	M	M	-	-	M	-	M	L	M
C102.4	H	M	L	L	-	L	-	-	-	L	L
C102.5	H	H	L	M	-	L	L	-	L	L	L
C102.6	M	L	H	L	-	-	-	-	-	M	L
Avg.	2.50	2.16	1.66	1.33	-	1.00	1.33	-	1.33	1.33	1.33

C103: PHARMACEUTICS (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C103.1	M	M	H	L	L	H	M	L	M	-	M
C103.2	H	M	L	M	-	H	L	M	H	-	H
C103.3	H	H	H	H	H	H	M	H	H	H	H
C103.4	H	H	H	H	M	H	M	H	H	H	H
C103.5	H	H	H	H	L	H	M	M	H	H	H
C103.6	H	H	H	H	M	H	M	M	H	H	H
Avg.	2.83	2.66	2.66	2.50	1.80	3.00	1.83	2.16	2.83	3.00	2.83

C104: Pharmaceutical Inorganic Chemistry (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C104.1	H	-	-	-	-	L	L	H	H	M	M
C104.2	H	-	-	-	-	L	L	H	H	M	M
C104.3	H	-	-	-	-	-	-	M	M	M	M
C104.4	H	-	-	-	-	L	L	H	H	M	L
C104.5	H	-	-	-	-	-	L	H	H	M	L
C104.6	H	-	-	-	-	L	-	H	H	M	M
Avg.	3.00	-	-	-	-	1.00	1.00	2.83	2.83	2.00	1.66



C105 Communication Skills Theory

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C105.1	H	-	L	-	-	M	-	M	-	L	L
C105.2	H	-	-	-	-	M	L	M	M	L	L
C105.3	M	-	L	-	-	M	L	L	H	M	L
C105.4	H	-	L	-	-	-	-	L	M	L	M
C105.5	H	-	-	-	-	-	-	L	-	-	M
C105.6	H	-	-	M	-	M	L	M	H	L	L
Average	2.83	-	1.00	2.00	-	2.00	1.00	1.50	2.50	1.20	1.33

C106: Remedial Biology (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C106.1	H	-	-	-	-	L	L	H	H	M	M
C106.2	H	-	-	L	-	L	L	H	H	M	M
C106.3	H	-	-	L	-	L	-	M	M	M	M
C106.4	H	-	L	-	-	L	L	H	H	L	L
C106.5	H	L	-	-	-	-	L	H	H	M	L
C106.6	H	-	-	-	-	L	-	M	M	M	M
Avg.	3.00	1.00	1.00	1.00	-	1.00	1.00	2.66	2.66	1.83	1.66

C107: Human Anatomy and Physiology-I (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C101.1	H	-	-	-	-	M	-	M	-	L	L
C101.2	H	-	-	-	-	M	L	M	M	L	L
C101.3	M	-	L	-	-	M	L	M	H	M	L
C101.4	H	-	L	-	-	-	-	L	M	L	M
C101.5	H	-	-	-	-	-	-	L	-	-	L
C101.6	H	-	-	-	-	M	L	M	H	L	L
Avg.	2.83	-	1.00	-	-	2.00	1.00	1.66	2.50	1.20	1.16

C108: Pharmaceutical Analysis I P (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C108.1	H	H	H	L	-	L	-	-	M	L	M
C108.2	H	L	M	M	-	M	L	-	-	M	L
C108.3	H	-	-	L	-	-	M	-	L	L	M
C108.4	H	H	L	L	-	L	-	-	-	L	L
C108.5	H	L	L	M	-	M	L	-	L	L	M
C108.6	H	M	H	L	-	-	-	-	-	M	L
Avg.	3.00	2.00	2.00	1.33	-	1.50	1.33	-	1.33	1.33	1.50



C109: Pharmaceutics (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C109.1	H	H	H	H	M	H	L	M	H	M	H
C109.2	H	H	H	H	M	H	L	M	H	M	H
C109.3	H	H	H	H	M	H	L	M	H	M	H
C109.4	H	H	H	H	M	H	L	H	H	M	H
C109.5	H	H	H	H	M	H	L	H	H	M	H
C109.6	H	H	H	H	M	H	L	M	H	M	H
Avg.	3.00	3.00	3.00	3.00	2.00	3.00	1.00	2.33	3.00	2.00	3.00

C110: Pharmaceutical Inorganic Chemistry (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C110.1	H	-	-	-	-	M	-	M	-	L	L
C110.2	H	-	-	-	-	M	L	M	M	L	L
C110.3	M	-	L	-	-	M	L	M	H	M	L
C110.4	H	-	L	-	-	-	-	L	M	L	M
C110.5	H	-	-	-	-	-	-	L	-	-	L
C110.6	H	-	-	-	-	M	L	M	H	L	L
Avg.	2.83	-	1.00	-	-	2.00	1.00	1.66	2.50	1.20	1.16

C111: Communication Skills (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C111.1	H	H	H	L	-	L	-	-	L	M	M
C111.2	H	M	M	L	-	L	L	-	-	M	L
C111.3	H	-	-	M	-	-	L	-	L	L	M
C111.4	H	M	H	L	-	L	-	-	-	M	L
C111.5	H	L	H	M	-	L	L	-	L	L	M
C111.6	H	H	M	L	-	-	-	-	-	M	L
Avg.	3.00	2.20	2.60	1.33	-	1.00	1.00	-	1.00	1.66	1.50

C112: Remedial Biology (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C112.1	H	-	-	-	-	M	L	M	L	L	L
C112.2	H	L	-	-	-	M	L	M	M	L	L
C112.3	M	-	L	-	-	M	L	M	H	M	L
C112.4	H	-	L	-	-	L	L	L	M	L	M
C112.5	H	-	-	L	-	L	L	L	L	L	M
C112.6	H	-	-	L	-	M	L	M	H	L	L
Avg.	2.83	1.00	1.00	1.00	-	1.66	1.00	1.66	2.00	1.16	1.33



B. PHARM. SEM.-II**C201: Human Anatomy and Physiology (TH)**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C201.1	H	L	-	M	-	M	-	L	H	H	H
C201.2	H	L	-	M	-	M	-	L	H	H	H
C201.3	H	L	-	M	L	M	-	L	H	H	H
C201.4	H	L	L	M	-	M	-	M	H	H	H
C201.5	H	L	-	M	-	M	-	L	H	H	H
C201.6	H	L	M	M	-	H	-	L	H	H	H
Avg.	3.00	1.00	1.5	2.00	1.00	2.16	-	1.16	3.00	3.00	3.00

C202: Pharmaceutical Organic Chemistry (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C202.1	H	-	-	-	-	L	L	M	L	H	H
C202.2	H	-	H	-	-	H	-	M	M	-	H
C202.3	H	H	H	-	-	M	-	-	M	L	H
C202.4	H	H	H	-	-	M	-	-	H	L	H
C202.5	H	-	H	-	-	M	-	-	H	M	H
C201.6	H	-	H	-	-	M	-	-	H	M	H
Avg.	3.00	3.00	3.00	-	-	2.00	1.00	2.00	2.33	1.80	3.00

C203: Biochemistry (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C203.1	H	H	H	L	-	L	-	-	L	M	M
C203.2	H	M	M	L	-	L	L	-	-	M	L
C203.3	H	-	-	M	-	-	L	-	L	L	M
C203.4	H	M	H	L	-	L	-	-	-	M	L
C203.5	H	L	H	M	-	L	L	-	L	L	M
C203.6	H	H	M	L	-	-	-	-	-	M	L
Avg.	3.00	2.20	2.60	1.33	-	1.00	1.00	-	1.00	1.66	1.50

C204: Pathophysiology (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C204.1	H	-	M	-	-	M	-	H	H	L	M
C204.2	H	-	M	-	-	M	L	H	H	L	M
C204.3	H	-	M	-	-	M	L	H	H	L	M
C204.4	H	-	M	-	-	M	L	H	M	M	M
C204.5	H	-	L	-	-	L	-	M	M	L	M
C204.6	H	-	M	-	-	L	M	M	H	L	M
Avg.	3.00	-	1.83	-	-	1.66	1.25	2.66	2.66	1.16	2.00



C205: Computer Application in Pharmacy (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C205.1	H	M	-	L	-	-	-	-	H	H	H
C205.2	H	M	-	M	-	M	-	-	H	H	H
C205.3	H	M	-	L	-	-	-	M	H	H	H
C205.4	H	H	-	L	L	-	-	H	H	H	H
C205.5	H	H	H	H	H	H	H	H	H	H	H
C205.6	H	H	M	H	L	H	-	-	H	H	H
Avg.	3.00	2.50	2.50	1.83	1.66	2.66	3.00	2.66	3.00	3.00	3.00

C206: Environmental Sciences (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C206.1	H	M	H	L	-	L	-	-	M	L	M
C206.2	H	L	M	L	-	M	L	-	-	M	L
C206.3	H	L	-	L	-	-	M	-	M	L	L
C206.4	H	M	M	L	-	L	-	-	-	L	L
C206.5	H	M	L	M	-	M	L	-	L	L	M
C206.6	H	L	H	L	-	-	-	-	-	M	L
Avg.	3.00	1.50	2.20	1.16	-	1.50	1.33	-	1.66	1.33	1.33

C207: Human Anatomy and Physiology (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C207.1	H	M	-	L	-	-	-	-	H	H	H
C207.2	H	M	-	M	-	M	-	-	H	H	H
C207.3	H	M	-	L	-	-	-	M	H	H	H
C207.4	H	H	-	L	L	-	-	H	H	H	H
C207.5	H	H	H	H	H	H	H	H	H	H	H
C207.6	H	H	M	H	L	H	-	-	H	H	H
Avg.	3.00	2.5	2.50	1.83	1.33	2.66	3.00	2.66	3.00	3.00	3.00

C208: Pharmaceutical Organic Chemistry (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C208.1	H	-	H	-	-	-	-	M	-	-	H
C208.2	H	-	H	-	-	-	-	M	M	-	H
C208.3	H	-	H	-	-	M	-	M	H	-	H
C208.4	H	-	H	-	-	M	-	L	M	-	H
C208.5	H	H	H	-	-	-	-	L	-	-	H
C208.6	H	H	H	-	-	M	-	M	H	-	H
Avg.	3.00	3.00	3.00	-	-	2.00	-	1.66	2.50	-	3.00



C 209: Biochemistry (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C209.1	H	M	H	L	-	L	-	-	M	L	M
C209.2	H	L	M	L	-	M	L	-	-	M	L
C209.3	H	L	-	L	-	-	M	-	M	L	L
C209.4	H	M	M	L	-	L	-	-	-	L	L
C209.5	H	M	L	M	-	M	L	-	L	L	M
C209.6	H	L	H	L	-	-	-	-	-	M	L
Avg.	3.00	1.5	2.20	1.16	-	1.50	1.33	-	1.66	1.33	1.33

C210: Computer Application in Pharmacy (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C210.1	H	M	-	L	-	-	-	-	H	H	H
C210.2	H	M	-	M	-	M	-	-	H	H	H
C210.3	H	M	-	L	-	-	-	M	H	H	H
C210.4	H	H	-	L	L	-	-	H	H	H	H
C210.5	H	H	H	H	H	H	H	H	H	H	H
C210.6	H	H	M	H	L	H	-	-	H	H	H
Avg.	3.00	2.5	2.50	1.83	1.66	2.66	3.00	2.66	3.00	3.00	3.00

B. PHARM. SEM.-III
C301: Pharmaceutical Organic Chemistry-II (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C301.1	H	H	H	L	-	L	-	-	L	M	M
C301.2	H	M	H	L	-	L	L	-	-	M	L
C301.3	H	H	H	M	-	-	L	-	L	L	M
C301.4	H	M	H	L	-	L	-	-	-	M	L
C301.5	H	H	H	M	-	L	L	-	L	L	M
C301.6	H	M	H	L	-	-	-	-	-	M	L
Avg.	3.00	2.50	3.00	1.33	-	1.00	1.00	-	1.00	1.66	1.66

C302: Physical Pharmacy-I (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C302.1	H	M	H	H	L	L	L	M	L	M	H
C302.2	H	H	H	M	L	L	-	L	-	H	H
C302.3	H	M	H	H	L	H	L	L	L	H	H
C302.4	H	M	H	H	L	H	L	M	M	M	H
C302.5	H	H	H	H	-	L	M	M	M	M	M
C302.6	H	H	H	H	L	M	L	L	M	M	H
Avg.	3.00	2.50	3.00	2.83	1.00	1.83	1.20	1.50	1.60	2.33	2.83



C303: Pharmaceutical Microbiology (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C303.1	H	M	H	L	-	L	-	M	M	L	M
C303.2	H	L	M	L	-	M	L	-	-	M	L
C303.3	M	L	-	L	-	-	M	-	M	L	L
C303.4	H	L	M	L	-	L	-	-	-	L	L
C303.5	H	M	L	M	-	M	L	-	L	L	M
C303.6	M	L	H	L	-	-	-	L	-	M	L
Avg.	2.66	1.33	2.20	1.16	-	1.50	1.33	1.50	1.66	1.33	1.33

C304: Pharmaceutical Engineering (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C304.1	H	M	H	H	L	H	H	-	-	-	H
C304.2	H	H	H	H	L	H	M	-	H	-	H
C304.3	H	H	H	H	H	H	H	L	H	H	H
C304.4	H	H	H	H	H	H	M	M	H	H	H
C304.5	H	H	H	M	H	H	M	-	M	H	H
C304.6	H	H	H	H	M	M	M	-	H	H	M
Avg.	3.00	2.83	3.00	2.83	2.16	2.83	2.33	1.50	2.80	3.00	2.83

C305: Pharmaceutical Organic Chemistry (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C305.1	H	H	H	L	L	H	M	L	H	H	H
C305.2	H	H	H	L	L	H	M	L	H	H	H
C305.3	H	H	H	L	L	M	L	M	-	-	H
C305.4	H	H	H	-	-	L	M	-	M	L	H
C305.5	H	H	H	-	-	L	M	-	M	L	H
C305.6	H	H	H	-	-	L	M	-	M	L	H
Avg.	3.00	3.00	3.00	1.00	1.00	1.83	1.83	1.33	2.40	1.80	3.00

C306: Physical Pharmacy-I (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C306.1	H	H	H	H	L	M	M	M	M	M	H
C306.2	H	H	H	H	M	M	M	M	L	H	H
C306.3	H	H	H	H	L	M	L	M	M	L	H
C306.4	H	M	H	H	L	M	-	M	M	L	M
C306.5	H	H	H	H	L	M	-	M	M	L	L
C306.6	H	H	H	H	L	M	L	M	M	L	H
Avg.	3.00	2.83	3.00	3.00	1.16	2.00	1.50	2.00	1.83	1.50	2.50



C307: Pharmaceutical Microbiology (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C307.1	H	-	M	-	-	M	-	H	H	L	M
C307.2	H	-	M	-	-	M	L	H	H	L	M
C307.3	H	-	M	-	-	M	L	H	H	L	M
C307.4	H	-	M	-	-	M	L	H	M	M	M
C307.5	H	-	L	-	-	L	-	M	M	L	M
C307.6	H	-	M	-	-	L	M	M	H	L	M
Avg.	3.00	-	1.83	-	-	1.66	1.25	2.66	2.66	1.16	2.00

C308: Pharmaceutical Engineering (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C308.1	H	-	M	-	M	-	-	-	-	L	L
C308.2	M	L	M	H	L	L	-	-	L	L	M
C308.3	H	-	L	M	-	-	L	-	L	M	M
C308.4	H	H	M	H	L	L	L	-	-	M	M
C308.5	H	M	M	H	-	L	L	-	-	M	M
C308.6	H	-	M	H	-	-	-	-	-	-	M
Avg.	2.83	2.00	1.83	2.80	1.33	1.00	1.00	-	1.00	1.60	1.83

B. PHARM. SEM-IV
C401: Organic Chemistry-III (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C401.1	H	-	-	H	L	-	L	L	-	L	M
C401.2	H	L	M	M	-	-	-	L	M	M	H
C401.3	H	M	M	M	-	-	L	L	L	H	H
C401.4	H	M	M	M	-	M	-	L	L	H	H
C401.5	H	M	M	H	M	M	L	L	H	H	H
C401.6	H	L	L	M	-	M	M	M	M	M	H
Avg.	3.00	1.60	1.80	2.33	1.50	2.00	1.25	1.16	1.80	2.33	2.83

C402: Medicinal Chemistry-I (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C402.1	L	L	-	H	L	M	L	L	H	H	H
C402.2	H	L	L	M	-	M	-	L	H	H	H
C402.3	H	L	L	M	L	M	L	L	H	H	H
C402.4	H	L	L	M	-	M	-	M	H	H	H
C402.5	H	L	-	M	-	M	-	L	H	H	H
C402.6	H	L	M	M	-	H	L	L	H	H	H
AVG	2.66	1.00	1.25	2.16	1.00	2.16	1.00	1.16	3.00	3.00	3.00



C403: Physical Pharmaceutics-II (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C403.1	H	M	H	M	L	M	L	H	M	H	H
C403.2	H	M	H	H	L	H	L	M	H	H	H
C403.3	H	M	H	H	L	H	L	H	M	H	H
C403.4	H	M	H	H	L	H	L	M	H	H	H
C403.5	H	H	H	H	-	M	L	H	H	H	H
C403.6	H	H	H	H	L	L	L	H	H	H	H
Avg.	3.00	2.33	3.00	2.83	1.00	2.33	1.00	2.66	2.66	3.00	3.00

C404: Pharmacology-I (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C404.1	H	-	-	L	-	L	H	H	H	H	H
C404.2	H	-	-	L	-	L	H	H	H	H	H
C404.3	H	-	-	L	-	L	H	H	H	H	H
C404.4	H	-	-	L	-	L	H	H	H	H	H
C404.5	H	-	-	L	-	L	H	H	H	H	H
C404.6	H	-	-	L	-	L	H	H	H	H	H
Avg.	3.00	-	-	1.00	-	1.00	3.00	3.00	3.00	3.00	3.00

C405: Pharmacognosy and Phytochemistry (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C 405.1	H	H	M	H	H	M	M	H	L	H	H
C 405.2	H	L	L	H	L	M	M	M	M	M	H
C 405.3	H	H	M	M	L	M	H	H	M	M	H
C 405.4	H	M	L	M	L	L	L	L	L	L	H
C 405.5	H	H	H	H	L	L	L	L	M	L	H
C 405.6	H	L	L	H	L	L	H	L	L	M	H
Avg.	3.00	2.16	1.66	2.66	1.33	1.50	2.00	1.83	1.50	1.83	3.00

C406: Medicinal Chemistry-(PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C406.1	L	L	-	M	H	M	-	L	H	H	L
C406.2	H	L	L	M	-	M	-	L	H	H	H
C406.3	H	L	-	M	L	M	-	L	H	H	H
C406.4	H	L	L	M	-	M	-	L	H	H	H
C406.5	H	L	-	M	-	M	-	L	H	H	H
C406.6	H	L	M	M	H	H	-	M	H	H	M
Avg.	2.66	1.00	1.33	2.00	1.16	2.16	-	1.16	3.00	3.00	2.50



C407: Physical Pharmaceutics-II (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C407.1	H	H	H	H	L	M	M	H	M	L	H
C407.2	H	M	H	H	L	H	M	H	L	L	H
C407.3	H	H	H	H	L	H	M	H	M	M	H
C407.4	H	H	H	H	L	H	M	H	M	H	H
C407.5	H	M	H	H	L	M	L	H	M	M	H
C407.6	H	H	H	H	L	M	L	H	H	M	H
Avg.	3.00	2.66	3.00	3.00	1.00	2.50	1.66	3.00	2.00	1.83	3.00

C408: Pharmacology-I (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C408.1	H	L	-	H	-	L	H	H	H	H	H
C408.2	H	M	H	H	-	L	H	H	H	H	H
C408.3	H	-	H	H	-	L	H	H	H	H	H
C408.4	H	-	H	H	-	L	H	H	H	H	H
C408.5	H	M	H	H	-	L	H	H	H	H	H
C408.6	H	M	H	H	-	L	H	H	H	H	H
Avg.	3.00	1.75	3.00	3.00	-	1.00	3.00	3.00	3.00	3.00	3.00

C409: Pharmacognosy and Phytochemistry-I (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C409.1	H	L	H	H	-	M	L	-	L	H	H
C409.2	H	L	H	H	-	M	-	-	M	H	H
C409.3	H	-	H	M	-	L	-	-	L	M	H
C409.4	H	M	L	M	-	L	-	-	M	M	H
C409.5	M	-	M	M	-	M	-	-	L	M	H
C409.6	M	-	M	M	-	-	-	-	L	M	H
Avg.	2.66	1.33	2.33	2.33	-	1.80	-	-	1.33	2.33	3.00

B. PHARM. SEM.-V
C501: Medicinal Chemistry-II (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C501.1	H	-	M	M	-	-	L	H	H	M	H
C501.2	H	-	M	M	L	L	L	H	H	L	M
C501.3	H	-	H	H	L	M	-	H	M	H	H
C501.4	H	-	M	H	L	L	M	H	H	M	H
C501.5	H	L	L	M	-	L	L	H	H	L	M
C501.6	H	H	H	M	-	L	M	M	L	H	H
Avg.	3.00	2.00	2.16	2.33	1.00	1.20	1.40	2.83	2.50	2.00	2.66



C502: Industrial Pharmacy-I (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C502.1	H	M	M	M	-	H	M	M	H	L	M
C502.2	H	H	H	H	M	H	M	H	M	M	H
C502.3	H	H	H	H	M	H	M	H	M	M	H
C502.4	H	M	L	H	M	H	L	H	H	M	H
C502.5	H	H	H	H	M	H	M	H	M	H	H
C502.6	H	M	H	M	M	H	M	H	H	M	H
Avg.	3.00	2.50	2.50	2.66	2.00	3.00	1.83	2.83	2.50	2.00	2.83

C503: Pharmacology-II (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C503.1	H	L	M	M	-	H	L	L	H	M	L
C503.2	H	L	L	M	-	H	L	L	H	L	M
C503.3	H	L	L	H	-	H	L	L	H	L	H
C503.4	H	L	L	H	-	H	L	H	M	M	H
C503.5	H	L	M	M	-	M	L	L	H	L	H
C503.6	H	L	H	H	-	H	L	M	M	L	M
Avg.	3.00	1.00	1.66	2.50	-	2.83	1.00	1.50	2.66	1.33	2.33

C504: Pharmacognosy and Phytochemistry-II (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C504.1	H	H	H	H	L	L	M	M	M	M	H
C504.2	H	H	H	H	M	H	M	L	M	M	H
C504.3	H	H	H	L	L	M	H	L	H	M	H
C504.4	H	H	H	H	L	L	H	L	L	M	H
C504.5	H	H	H	H	H	L	M	M	L	L	H
C504.6	H	H	H	H	L	L	L	L	L	L	H
Avg.	3.00	3.00	3.00	2.66	1.5	1.5	2.16	1.33	1.66	1.66	3.00

C505: Pharmaceutical Jurisprudence (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C505.1	H	M	M	M	L	H	H	L	H	M	L
C505.2	H	L	L	M	L	H	H	L	H	L	M
C505.3	H	L	L	H	L	H	M	L	H	L	H
C505.4	H	L	L	H	H	H	H	H	H	M	H
C505.5	H	M	M	M	H	M	H	L	H	L	H
C505.6	H	H	H	H	M	H	H	M	H	L	M
Avg.	3.00	1.66	1.66	2.50	1.83	2.83	2.83	1.5	3.00	1.33	2.33



C506: Industrial Pharmacy-I (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C506.1	H	M	M	H	M	M	H	H	H	M	M
C506.2	M	H	H	H	M	M	H	H	M	M	H
C506.3	H	H	H	H	M	M	M	H	M	M	H
C506.4	H	M	L	H	M	H	L	H	H	M	M
C506.5	H	H	H	H	M	H	H	H	M	M	M
C506.6	H	M	H	M	M	H	M	H	H	M	H
Avg.	2.83	2.50	2.50	2.83	2.00	2.50	2.33	3.00	2.50	2.00	2.50

C507: Pharmacology-II (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C507.1	H	L	M	M	-	H	-	L	H	M	L
C507.2	H	L	L	M	-	H	-	L	H	L	M
C507.3	H	L	L	H	-	H	-	L	H	L	H
C507.4	H	L	L	H	-	H	-	H	H	M	H
C507.5	H	L	M	M	-	M	-	L	H	L	H
C507.6	H	L	H	H	-	H	-	M	H	L	M
Avg.	3.00	1.00	1.66	2.50	-	2.83	-	1.50	3.00	1.33	2.33

C508: Pharmacognosy and Phytochemistry-II (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C508.1	H	H	H	M	L	L	L	L	L	L	H
C508.2	H	H	H	H	L	L	L	L	L	L	H
C508.3	H	H	H	H	L	L	L	L	L	L	H
C508.4	H	H	H	H	L	L	L	L	L	L	H
C508.5	H	H	H	M	L	L	L	L	L	L	H
C508.6	M	L	L	L	L	L	L	L	L	L	H
Avg.	2.83	2.66	2.66	2.33	1.00	1.00	1.00	1.00	1.00	1.00	3.00

B. PHARM. SEM.-VI
C601: Medicinal Chemistry- III (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C601.1	M	H	M	L	-	L	-	-	L	L	M
C601.2	H	L	L	L	-	L	L	-	-	M	L
C601.3	M	H	M	M	-	-	M	-	M	L	M
C601.4	H	M	L	L	-	L	-	-	-	L	L
C601.5	H	H	L	M	-	L	L	-	L	L	L
C601.6	M	L	H	L	-	-	-	-	-	M	L
Avg.	2.50	2.16	1.66	1.33	-	1.00	1.33	-	1.33	1.33	1.33



C602: Pharmacology-III (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C602.1	H	M	M	M	L	L	H	L	H	M	L
C602.2	H	L	L	M	L	-	H	L	M	L	M
C602.3	H	L	L	H	L	L	M	L	H	L	H
C602.4	H	L	L	H	H	L	H	H	H	M	H
C602.5	H	M	M	M	H	L	H	L	H	L	H
C602.6	H	H	H	H	M	-	H	M	M	L	M
Avg.	3.00	1.66	1.66	2.50	1.83	1.00	2.83	1.50	2.66	1.33	2.33

C603: Herbal Drug Technology (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C603.1	M	L	L	L	L	L	L	L	L	L	M
C603.2	M	L	L	L	L	L	M	L	L	L	M
C603.3	L	L	L	L	L	L	L	L	L	L	M
C603.4	H	H	H	L	H	H	M	L	L	L	M
C603.5	H	L	L	L	L	L	L	L	L	L	M
C603.6	M	L	L	L	L	L	L	L	L	L	L
Avg.	2.16	1.33	1.33	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.83

C604: Biopharmaceutics and Pharmacokinetics (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C604.1	H	L	M	-	-	M	-	H	H	L	M
C604.2	H	-	M	-	-	M	L	H	H	L	L
C604.3	H	L	M	-	L	M	L	M	H	L	M
C604.4	H	M	M	-	-	M	L	H	M	M	M
C604.5	H	-	L	M	-	L	-	M	M	L	L
C604.6	H	L	M	-	-	L	M	M	H	L	L
Avg.	3.00	1.25	1.83	2.00	1.00	1.66	1.25	2.50	2.66	1.16	1.50

C605: Pharmaceutical Biotechnology (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C605.1	H	L	M	L	-	M	L	-	M	M	H
C605.2	H	H	H	H	-	M	H	M	H	H	H
C605.3	H	H	H	H	M	M	H	M	H	H	H
C605.4	H	L	L	H	L	L	M	M	M	H	H
C605.5	H	H	H	H	H	H	H	H	H	H	H
C605.6	H	H	H	H	H	H	H	H	H	H	H
Avg.	3.00	2.33	2.50	2.66	2.25	2.16	2.50	2.00	2.66	2.83	3.00



C606: Pharmaceutical Quality Assurance (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C606.1	H	M	M	M	L	M	H	M	H	M	H
C606.2	H	H	M	L	-	M	L	L	M	L	M
C606.3	H	H	H	H	M	H	H	H	H	L	M
C606.4	H	L	L	M	L	L	L	L	M	M	M
C606.5	H	H	H	H	H	H	H	M	H	H	H
C606.6	H	H	H	H	M	M	H	M	L	H	H
Avg.	3.00	2.50	2.33	2.33	1.80	2.16	2.33	1.83	2.33	2.00	2.50

C607: Medicinal Chemistry- III (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C607.1	H	H	H	L	-	L	-	-	M	L	M
C607.2	H	L	M	M	-	M	L	-	-	M	L
C607.3	H	-	-	L	-	-	M	-	L	L	M
C607.4	H	H	L	L	-	L	-	-	-	L	L
C607.5	H	L	L	M	-	M	L	-	L	L	M
C607.6	H	M	H	L	-	-	-	-	-	M	L
Avg.	3.00	2.00	2.00	1.33	-	1.50	1.33	-	1.33	1.33	1.50

C608: Pharmacology-III (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C608.1	H	M	M	M	L	L	H	L	H	M	L
C608.2	H	L	L	M	L	L	L	L	H	L	M
C608.3	H	L	L	H	L	L	M	L	H	L	H
C608.4	H	L	L	H	H	L	H	H	H	M	H
C608.5	H	M	M	M	H	L	H	L	H	L	H
C608.6	H	H	H	H	M	L	L	M	H	L	M
Avg.	3.00	1.66	1.66	2.50	1.83	1.00	2.16	1.50	3.00	1.33	2.33

C609: Herbal Drug Technology (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C609.1	H	H	H	H	L	L	L	L	L	L	H
C609.2	M	M	M	M	L	L	L	L	L	L	M
C609.3	H	H	H	M	M	L	H	M	M	M	H
C609.4	H	H	H	H	L	L	M	M	L	L	M
C609.5	H	H	H	H	M	L	M	M	L	L	H
C609.6	M	M	M	M	L	L	L	L	L	L	M
Avg.	2.66	2.66	2.66	2.50	1.33	1.00	1.66	1.50	1.16	1.16	2.50



B. PHARM. SEM.-VII**C701: Pharmaceutics-V (TH)**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C701.1	H	H	H	L	-	L	-	-	L	M	M
C701.2	H	M	M	L	-	L	L	-	-	M	L
C701.3	H	-	-	M	-	-	L	-	L	L	M
C701.4	H	M	H	L	-	L	-	-	-	M	L
C701.5	H	L	H	M	-	L	L	-	L	L	M
C701.6	H	H	M	L	-	-	-	-	-	M	L
Avg.	3.00	2.20	2.60	1.33	-	1.00	1.00	-	1.00	1.66	1.50

C702: Medicinal Chemistry-III (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C702.1	H	H	H	H	H	H	H	H	M	H	H
C702.2	H	H	H	H	H	H	H	H	M	H	H
C702.3	H	H	H	M	H	H	H	H	M	H	H
C702.4	H	H	H	M	H	H	H	H	M	H	H
C702.5	H	H	H	H	M	H	H	H	M	H	H
C702.6	H	H	H	H	M	H	H	H	M	H	H
Avg.	3.00	3.00	3.00	2.66	2.66	3.00	3.00	3.00	2.00	3.00	3.00

C703: Pharmacology-III (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C703.1	H	-	-	-	H	H	H	H	H	H	H
C703.2	H	-	-	L	H	H	H	H	H	H	H
C703.3	H	H	M	M	H	H	H	H	H	H	H
C703.4	H	-	M	M	H	H	H	H	H	H	H
C703.5	H	H	H	H	H	H	H	H	H	H	H
C703.6	H	-	-	-	-	H	H	H	H	H	H
Avg.	3.00	3.00	2.33	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

C704: Pharmacognosy-V (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C704.1	H	H	M	H	L	H	H	H	H	M	H
C704.2	H	H	H	H	L	M	H	M	H	M	M
C704.3	H	H	H	M	-	M	H	M	H	M	M
C704.4	H	H	M	H	-	M	M	M	H	M	M
C704.5	H	H	M	H	-	M	M	M	H	M	M
C704.6	H	M	M	H	-	M	M	M	H	M	H
Avg.	3.00	2.83	2.33	2.83	1.00	2.16	2.50	2.16	3.00	2.00	2.33



C705: Pharmaceutical Analysis (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C705.1	H	M	H	L	-	L	-	-	M	L	M
C705.2	H	L	M	L	-	M	L	-	-	M	L
C705.3	H	L	-	L	-	-	M	-	M	L	L
C705.4	H	M	M	L	-	L	-	-	-	L	L
C705.5	H	M	L	M	-	M	L	-	L	L	M
C705.6	H	L	H	L	-	-	-	-	-	M	L
Avg.	3.00	1.50	2.20	1.16	-	1.50	1.33	-	1.66	1.33	1.33

C706: Pharmaceutical Jurisprudence (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C706.1	H	-	-	-	H	H	H	H	H	H	H
C706.2	H	-	-	L	H	H	H	H	H	H	H
C706.3	H	H	M	M	H	H	H	H	H	H	H
C706.4	H	-	M	M	H	H	H	H	H	H	H
C706.5	H	H	H	H	H	H	H	H	H	H	H
C706.6	H	-	-	-	-	H	H	H	H	H	H
Avg.	3.00	3.00	2.33	2.00	3.50	3.00	3.00	3.00	3.00	3.00	3.00

C707: Seminar (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C707.1	H	M	H	H	H	H	H	M	H	L	H
C707.2	H	H	H	H	H	H	H	M	H	L	H
C707.3	H	H	H	H	H	H	H	M	H	H	H
C707.4	H	H	H	H	M	H	H	M	H	H	H
C707.5	H	H	H	H	M	H	H	M	H	H	H
C707.6	H	H	H	H	M	H	H	M	H	H	H
Avg.	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00

C708: Pharmaceutics-V (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C708.1	H	-	-	-	H	H	H	H	H	H	H
C708.2	H	-	-	L	H	H	H	H	H	H	H
C708.3	H	H	M	M	H	H	H	H	H	H	H
C708.4	H	-	M	M	H	H	H	H	H	H	H
C708.5	H	H	H	H	H	H	H	H	H	H	H
C708.6	H	-	-	-	-	H	H	H	H	H	H
Avg.	3.00	3.00	2.33	2.00	3.50	3.00	3.00	3.00	3.00	3.00	3.00



C709: Medicinal Chemistry-III (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C709.1	H	-	-	-	H	H	H	H	H	H	H
C709.2	H	-	-	L	H	H	H	H	H	H	H
C709.3	H	H	M	M	H	H	H	H	H	H	H
C709.4	H	-	M	M	H	H	H	H	H	H	H
C709.5	H	H	H	H	H	H	H	H	H	H	H
C709.6	H	-	-	-	-	H	H	H	H	H	H
Avg.	3.00	3.00	2.33	2.00	3.50	3.00	3.00	3.00	3.00	3.00	3.00

C710: Pharmacology-III (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C710.1	H	-	-	-	H	H	H	H	H	H	H
C710.2	H	-	-	L	H	H	H	H	H	H	H
C710.3	H	H	M	M	H	H	H	H	H	H	H
C710.4	H	-	M	M	H	H	H	H	H	H	H
C710.5	H	H	H	H	H	H	H	H	H	H	H
C710.6	H	-	-	-	-	H	H	H	H	H	H
Avg.	3.00	3.00	2.33	2.00	3.50	3.00	3.00	3.00	3.00	3.00	3.00

C711: Pharmacognosy-V (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C711.1	H	-	-	-	H	H	H	H	H	H	H
C711.2	H	-	-	L	H	H	H	H	H	H	H
C711.3	H	H	M	M	H	H	H	H	H	H	H
C711.4	H	-	M	M	H	H	H	H	H	H	H
C711.5	H	H	H	H	H	H	H	H	H	H	H
C711.6	H	-	-	-	-	H	H	H	H	H	H
Avg.	3.00	3.00	2.33	2.00	3.50	3.00	3.00	3.00	3.00	3.00	3.00

C712: Pharmaceutical Analysis-III (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C712.1	H	-	-	-	H	H	H	H	H	H	H
C712.2	H	-	-	L	H	H	H	H	H	H	H
C712.3	H	H	M	M	H	H	H	H	H	H	H
C712.4	H	-	M	M	H	H	H	H	H	H	H
C712.5	H	H	H	H	H	H	H	H	H	H	H
C712.6	H	-	-	-	-	H	H	H	H	H	H
Avg.	3.00	3.00	2.33	2.00	3.50	3.00	3.00	3.00	3.00	3.00	3.00



B. PHARM. SEM.-VIII**C801: Pharmaceutics-VI (TH)**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C801.1	H	M	M	H	-	M	M	L	M	L	H
C801.2	H	H	H	H	-	M	M	M	M	L	H
C801.3	H	H	H	H	L	H	H	M	M	M	H
C801.4	H	H	H	H	L	M	L	L	M	L	H
C801.5	H	H	H	H	L	M	L	L	M	L	H
C801.6	H	H	H	H	L	L	L	M	M	L	H
Avg.	3.00	2.83	2.83	3.00	1.00	2.00	1.66	1.50	2.00	1.16	3.00

C802: Medicinal Chemistry-IV (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C802.1	H	M	M	H	M	M	H	H	H	H	H
C802.2	H	L	H	M	L	H	L	H	H	L	H
C802.3	H	H	H	H	L	M	L	H	H	L	H
C802.4	M	M	M	H	M	H	M	H	H	M	H
C802.5	H	M	H	H	M	H	M	H	M	M	M
C802.6	H	M	H	M	M	M	M	H	H	M	M
Avg.	2.83	2.00	2.66	2.66	1.66	2.50	1.83	3.00	2.83	1.83	2.66

C803: Pharmaceutical Analysis-IV (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C803.1	H	H	H	L	H	H	M	H	M	M	M
C803.2	H	H	H	H	H	M	H	H	H	M	M
C803.3	H	H	H	H	M	L	M	L	L	M	M
C803.4	H	M	M	L	H	M	H	M	H	M	M
C803.5	H	H	M	L	H	M	H	H	M	M	M
C803.6	M	M	M	L	M	H	L	M	M	L	M
Avg.	2.83	2.66	2.66	1.66	2.66	2.16	2.33	2.33	2.16	1.83	2.00

C804: Pharmacognosy-VI (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C804.1	H	L	M	M	L	H	H	H	H	M	H
C804.2	H	L	M	M	L	H	H	H	H	M	H
C804.3	H	L	M	M	L	H	H	H	M	M	H
C804.4	H	L	M	H	L	H	H	H	H	M	H
C804.5	H	L	M	H	L	H	H	H	H	M	H
C804.6	H	L	M	H	L	H	H	H	H	M	H
Avg.	3.00	1.00	2.00	2.50	L.00	3.00	3.00	3.00	2.83	2.00	3.00



C805: Clinical Pharmacotherapeutics (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C805.1	H	-	-	-	H	H	H	H	H	H	H
C805.2	H	-	-	L	H	H	H	H	H	H	H
C805.3	H	H	M	M	H	H	H	H	H	H	H
C805.4	H	-	M	M	H	H	H	H	H	H	H
C805.5	H	H	H	H	H	H	H	H	H	H	H
C805.6	H	-	-	-	-	H	H	H	H	H	H
Avg.	3.00	3.00	2.33	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

C806: Communication Skills (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C806.1	H	H	H	H	H	H	H	H	H	H	H
C806.2	H	H	H	H	H	H	H	M	M	H	H
C806.3	H	H	H	H	H	H	H	H	H	H	H
C806.4	H	H	H	H	M	H	H	M	M	H	H
C806.5	H	H	H	H	M	H	H	H	H	H	H
C806.6	H	H	H	H	M	H	H	M	H	H	H
Avg.	3.00	3.00	3.00	3.00	2.50	3.00	3.00	2.50	2.66	3.00	3.00

C807: Pharmaceutics-VI (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C807.1	H	M	M	M	-	H	-	L	H	M	L
C807.2	H	L	L	M	-	H	-	L	H	L	M
C807.3	H	L	L	H	-	H	L	L	M	L	M
C807.4	H	M	L	L	-	H	-	M	H	M	H
C807.5	H	L	M	M	L	M	-	L	H	L	M
C807.6	H	L	H	L	-	H	-	M	M	M	M
Avg.	3.00	1.33	1.66	1.83	1.00	2.83	1.00	1.33	2.66	1.50	2.00

C808: Medicinal Chemistry-IV (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C808.1	H	M	H	H	L	H	H	M	H	L	H
C808.2	H	H	H	H	L	H	H	M	H	L	H
C808.3	H	H	H	H	L	H	H	M	H	H	H
C808.4	H	H	H	H	L	H	H	M	H	H	H
C808.5	H	H	H	H	L	H	H	M	H	H	H
C808.6	H	H	H	H	L	H	H	M	H	H	H
Avg.	3.00	2.83	3.00	3.00	1.00	3.00	3.00	2.00	3.00	2.33	3.00



C809: Pharmaceutical Analysis-IV (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C809.1	H	M	H	H	H	H	H	M	H	L	H
C809.2	H	H	H	H	H	H	H	M	H	L	H
C809.3	H	H	H	H	H	H	H	M	H	H	H
C809.4	H	H	H	H	M	H	H	M	H	H	H
C809.5	H	H	H	H	M	H	H	M	H	H	H
C809.6	H	H	H	H	M	H	H	M	H	H	H
Avg.	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00

C810: Pharmacognosy-VI (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C810.1	H	M	H	H	H	H	H	M	H	L	H
C810.2	H	H	H	H	H	H	H	M	H	L	H
C810.3	H	H	H	H	H	H	H	M	H	H	H
C810.4	H	H	H	H	M	H	H	M	H	H	H
C810.5	H	H	H	H	M	H	H	M	H	H	H
C810.6	H	H	H	H	M	H	H	M	H	H	H
Avg.	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00



ANNEXURE I: PROGRAM OUTCOMES

- 1. Pharmacy Knowledge:** Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioral, social, and administrative pharmacy sciences; and manufacturing practices.
- 2. Planning Abilities:** Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.
- 3. Problem analysis:** Utilize the principles of scientific enquiry, thinking analytically, clearly and critically, while solving problems and making decisions during daily practice. Find, analyze, evaluate and apply information systematically and shall make defensible decisions.
- 4. Modern tool usage:** Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitations.
- 5. Leadership skills:** Understand and consider the human reaction to change, motivation issues, leadership and team-building when planning changes required for fulfillment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and well-being.
- 6. Professional Identity:** Understand, analyze and communicate the value of their professional roles in society (e.g. health care professionals, promoters of health, educators, managers, employers, employees).
- 7. Pharmaceutical Ethics:** Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behavior that recognizes cultural and personal variability in values, communication and lifestyles. Use ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.
- 8. Communication:** Communicate effectively with the pharmacy community and with society at large, such as, being able to comprehend and write effective reports, make effective presentations and documentation, and give and receive clear instructions.
- 9. The Pharmacist and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional pharmacy practice.
- 10. Environment and sustainability:** Understand the impact of the professional pharmacy solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- 11. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. Self-assessed and use feedback effectively from others to identify learning needs and to satisfy these needs on an ongoing basis.



**CO-PO Matrices of all Courses from 1st to 8th Semester
Academic Year- 2020-2021
B. Pharm. Sem.-I**

C101: Human Anatomy and Physiology-I (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C101.1	H	-	-	-	-	L	L	H	H	M	M
C101.2	H	-	-	-	-	L	L	H	H	M	M
C101.3	H	-	-	-	-	-	-	M	M	M	M
C101.4	H	-	-	-	-	L	L	H	H	M	L
C101.5	H	-	-	-	-	-	L	H	H	M	L
C101.6	H	-	-	-	-	L	-	H	H	M	M
Avg.	3.00	-	-	-	-	1.00	1.00	2.83	2.83	3.00	1.66

C102: Pharmaceutical Analysis-I (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C102.1	M	H	M	L	-	L	-	-	L	L	M
C102.2	H	L	L	L	-	L	L	-	-	M	L
C102.3	M	H	M	M	-	-	M	-	M	L	M
C102.4	H	M	L	L	-	L	-	-	-	L	L
C102.5	H	H	L	M	-	L	L	-	L	L	L
C102.6	M	L	H	L	-	-	-	-	-	M	L
Avg.	2.50	2.16	1.66	1.33	-	1.00	1.33	-	1.33	1.33	1.33

C103: PHARMACEUTICS (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C103.1	M	M	H	L	L	H	M	L	M	-	M
C103.2	H	M	L	M	-	H	L	M	H	-	H
C103.3	H	H	H	H	H	H	M	H	H	H	H
C103.4	H	H	H	H	M	H	M	H	H	H	H
C103.5	H	H	H	H	L	H	M	M	H	H	H
C103.6	H	H	H	H	M	H	M	M	H	H	H
Avg.	2.83	2.66	2.66	2.50	1.80	3.00	1.83	2.16	2.83	3.00	2.83

C104: Pharmaceutical Inorganic Chemistry (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C104.1	H	-	-	-	-	L	L	H	H	M	M
C104.2	H	-	-	-	-	L	L	H	H	M	M
C104.3	H	-	-	-	-	-	-	M	M	M	M
C104.4	H	-	-	-	-	L	L	H	H	M	L
C104.5	H	-	-	-	-	-	L	H	H	M	L
C104.6	H	-	-	-	-	L	-	H	H	M	M
Avg.	3.00	-	-	-	-	1.00	1.00	2.83	2.83	2.00	1.66



C105 Communication Skills (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C105.1	H	-	L	-	-	M	-	M	-	L	L
C105.2	H	-	-	-	-	M	L	M	M	L	L
C105.3	M	-	L	-	-	M	L	L	H	M	L
C105.4	H	-	L	-	-	-	-	L	M	L	M
C105.5	H	-	-	-	-	-	-	L	-	-	M
C105.6	H	-	-	M	-	M	L	M	H	L	L
Average	2.83	-	1.00	2.00	-	2.00	1.00	1.50	2.50	1.20	1.33

C107: Human Anatomy and Physiology-I (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C101.1	H	-	-	-	-	M	-	M	-	L	L
C101.2	H	-	-	-	-	M	L	M	M	L	L
C101.3	M	-	L	-	-	M	L	M	H	M	L
C101.4	H	-	L	-	-	-	-	L	M	L	M
C101.5	H	-	-	-	-	-	-	L	-	-	L
C101.6	H	-	-	-	-	M	L	M	H	L	L
Avg.	2.83	-	1.00	-	-	2.00	1.00	1.66	2.50	1.20	1.16

C108: Pharmaceutical Analysis I P (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C108.1	H	H	H	L	-	L	-	-	M	L	M
C108.2	H	L	M	M	-	M	L	-	-	M	L
C108.3	H	-	-	L	-	-	M	-	L	L	M
C108.4	H	H	L	L	-	L	-	-	-	L	L
C108.5	H	L	L	M	-	M	L	-	L	L	M
C108.6	H	M	H	L	-	-	-	-	-	M	L
Avg.	3.00	2.00	2.00	1.33	-	1.50	1.33	-	1.33	1.33	1.50

C109: Pharmaceutics (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C109.1	H	H	H	H	M	H	L	M	H	M	H
C109.2	H	H	H	H	M	H	L	M	H	M	H
C109.3	H	H	H	H	M	H	L	M	H	M	H
C109.4	H	H	H	H	M	H	L	H	H	M	H
C109.5	H	H	H	H	M	H	L	H	H	M	H
C109.6	H	H	H	H	M	H	L	M	H	M	H
Avg.	3.00	3.00	3.00	3.00	2.00	3.00	1.00	2.33	3.00	2.00	3.00



C110: Pharmaceutical Inorganic Chemistry (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C110.1	H	-	-	-	-	M	-	M	-	L	L
C110.2	H	-	-	-	-	M	L	M	M	L	L
C110.3	M	-	L	-	-	M	L	M	H	M	L
C110.4	H	-	L	-	-	-	-	L	M	L	M
C110.5	H	-	-	-	-	-	-	L	-	-	L
C110.6	H	-	-	-	-	M	L	M	H	L	L
Avg.	2.83	-	1.00	-	-	2.00	1.00	1.66	2.50	1.20	1.16

C111: Communication Skills (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C111.1	H	H	H	L	-	L	-	-	L	M	M
C111.2	H	M	M	L	-	L	L	-	-	M	L
C111.3	H	-	-	M	-	-	L	-	L	L	M
C111.4	H	M	H	L	-	L	-	-	-	M	L
C111.5	H	L	H	M	-	L	L	-	L	L	M
C111.6	H	H	M	L	-	-	-	-	-	M	L
Avg.	3.00	2.20	2.60	1.33	-	1.00	1.00	-	1.00	1.66	1.50

B. PHARM. SEM.-II
C201: Human Anatomy and Physiology (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C201.1	H	L	-	M	-	M	-	L	H	H	H
C201.2	H	L	-	M	-	M	-	L	H	H	H
C201.3	H	L	-	M	L	M	-	L	H	H	H
C201.4	H	L	L	M	-	M	-	M	H	H	H
C201.5	H	L	-	M	-	M	-	L	H	H	H
C201.6	H	L	M	M	-	H	-	L	H	H	H
Avg.	3.00	1.00	1.5	2.00	1.00	2.16	-	1.16	3.00	3.00	3.00

C202: Pharmaceutical Organic Chemistry (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C202.1	H	-	-	-	-	L	L	M	L	H	H
C202.2	H	-	H	-	-	H	-	M	M	-	H
C202.3	H	H	H	-	-	M	-	-	M	L	H
C202.4	H	H	H	-	-	M	-	-	H	L	H
C202.5	H	-	H	-	-	M	-	-	H	M	H
C201.6	H	-	H	-	-	M	-	-	H	M	H
Avg.	3.00	3.00	3.00	-	-	2.00	1.00	2.00	2.33	1.80	3.00



C203: Biochemistry (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C203.1	H	H	H	L	-	L	-	-	L	M	M
C203.2	H	M	M	L	-	L	L	-	-	M	L
C203.3	H	-	-	M	-	-	L	-	L	L	M
C203.4	H	M	H	L	-	L	-	-	-	M	L
C203.5	H	L	H	M	-	L	L	-	L	L	M
C203.6	H	H	M	L	-	-	-	-	-	M	L
Avg.	3.00	2.20	2.60	1.33	-	1.00	1.00	-	1.00	1.66	1.50

C204: Pathophysiology (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C204.1	H	-	M	-	-	M	-	H	H	L	M
C204.2	H	-	M	-	-	M	L	H	H	L	M
C204.3	H	-	M	-	-	M	L	H	H	L	M
C204.4	H	-	M	-	-	M	L	H	M	M	M
C204.5	H	-	L	-	-	L	-	M	M	L	M
C204.6	H	-	M	-	-	L	M	M	H	L	M
Avg.	3.00	-	1.83	-	-	1.66	1.25	2.66	2.66	1.16	2.00

C205: Computer Application in Pharmacy (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C205.1	H	M	-	L	-	-	-	-	H	H	H
C205.2	H	M	-	M	-	M	-	-	H	H	H
C205.3	H	M	-	L	-	-	-	M	H	H	H
C205.4	H	H	-	L	L	-	-	H	H	H	H
C205.5	H	H	H	H	H	H	H	H	H	H	H
C205.6	H	H	M	H	L	H	-	-	H	H	H
Avg.	3.00	2.50	2.50	1.83	1.66	2.66	3.00	2.66	3.00	3.00	3.00

C206: Environmental Sciences (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C206.1	H	M	H	L	-	L	-	-	M	L	M
C206.2	H	L	M	L	-	M	L	-	-	M	L
C206.3	H	L	-	L	-	-	M	-	M	L	L
C206.4	H	M	M	L	-	L	-	-	-	L	L
C206.5	H	M	L	M	-	M	L	-	L	L	M
C206.6	H	L	H	L	-	-	-	-	-	M	L
Avg.	3.00	1.50	2.20	1.16	-	1.50	1.33	-	1.66	1.33	1.33



C207: Human Anatomy and Physiology (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C207.1	H	M	-	L	-	-	-	-	H	H	H
C207.2	H	M	-	M	-	M	-	-	H	H	H
C207.3	H	M	-	L	-	-	-	M	H	H	H
C207.4	H	H	-	L	L	-	-	H	H	H	H
C207.5	H	H	H	H	H	H	H	H	H	H	H
C207.6	H	H	M	H	L	H	-	-	H	H	H
Avg.	3.00	2.5	2.50	1.83	1.33	2.66	3.00	2.66	3.00	3.00	3.00

C208: Pharmaceutical Organic Chemistry (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C208.1	H	-	H	-	-	-	-	M	-	-	H
C208.2	H	-	H	-	-	-	-	M	M	-	H
C208.3	H	-	H	-	-	M	-	M	H	-	H
C208.4	H	-	H	-	-	M	-	L	M	-	H
C208.5	H	H	H	-	-	-	-	L	-	-	H
C208.6	H	H	H	-	-	M	-	M	H	-	H
Avg.	3.00	3.00	3.00	-	-	2.00	-	1.66	2.50	-	3.00

C 209: Biochemistry (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C209.1	H	M	H	L	-	L	-	-	M	L	M
C209.2	H	L	M	L	-	M	L	-	-	M	L
C209.3	H	L	-	L	-	-	M	-	M	L	L
C209.4	H	M	M	L	-	L	-	-	-	L	L
C209.5	H	M	L	M	-	M	L	-	L	L	M
C209.6	H	L	H	L	-	-	-	-	-	M	L
Avg.	3.00	1.5	2.20	1.16	-	1.50	1.33	-	1.66	1.33	1.33

C210: Computer Application in Pharmacy (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C210.1	H	M	-	L	-	-	-	-	H	H	H
C210.2	H	M	-	M	-	M	-	-	H	H	H
C210.3	H	M	-	L	-	-	-	M	H	H	H
C210.4	H	H	-	L	L	-	-	H	H	H	H
C210.5	H	H	H	H	H	H	H	H	H	H	H
C210.6	H	H	M	H	L	H	-	-	H	H	H
Avg.	3.00	2.5	2.50	1.83	1.66	2.66	3.00	2.66	3.00	3.00	3.00



B. PHARM. SEM.-III**C301: Pharmaceutical Organic Chemistry-II (TH)**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C301.1	H	H	H	L	-	L	-	-	L	M	M
C301.2	H	M	H	L	-	L	L	-	-	M	L
C301.3	H	H	H	M	-	-	L	-	L	L	M
C301.4	H	M	H	L	-	L	-	-	-	M	L
C301.5	H	H	H	M	-	L	L	-	L	L	M
C301.6	H	M	H	L	-	-	-	-	-	M	L
Avg.	3.00	2.50	3.00	1.33	-	1.00	1.00	-	1.00	1.66	1.50

C302: Physical Pharmacy-I (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C302.1	H	M	H	H	L	L	L	M	L	M	H
C302.2	H	H	H	M	L	L	-	L	-	H	H
C302.3	H	M	H	H	L	H	L	L	L	H	H
C302.4	H	M	H	H	L	H	L	M	M	M	H
C302.5	H	H	H	H	-	L	M	M	M	M	M
C302.6	H	H	H	H	L	M	L	L	M	M	H
Avg.	3.00	2.50	3.00	2.83	1.00	1.83	1.20	1.50	1.60	2.33	2.83

C303: Pharmaceutical Microbiology (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C303.1	H	M	H	L	-	L	-	M	M	L	M
C303.2	H	L	M	L	-	M	L	-	-	M	L
C303.3	M	L	-	L	-	-	M	-	M	L	L
C303.4	H	L	M	L	-	L	-	-	-	L	L
C303.5	H	M	L	M	-	M	L	-	L	L	M
C303.6	M	L	H	L	-	-	-	L	-	M	L
Avg.	2.66	1.33	2.20	1.16	-	1.50	1.33	1.50	1.66	1.33	1.33

C304: Pharmaceutical Engineering (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C304.1	H	M	H	H	L	H	H	-	-	-	H
C304.2	H	H	H	H	L	H	M	-	H	-	H
C304.3	H	H	H	H	H	H	H	L	H	H	H
C304.4	H	H	H	H	H	H	M	M	H	H	H
C304.5	H	H	H	M	H	H	M	-	M	H	H
C304.6	H	H	H	H	M	M	M	-	H	H	M
Avg.	3.00	2.83	3.00	2.83	2.16	2.83	2.33	1.50	2.80	3.00	2.83



C305: Pharmaceutical Organic Chemistry (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C305.1	H	H	H	L	L	H	M	L	H	H	H
C305.2	H	H	H	L	L	H	M	L	H	H	H
C305.3	H	H	H	L	L	M	L	M	-	-	H
C305.4	H	H	H	-	-	L	M	-	M	L	H
C305.5	H	H	H	-	-	L	M	-	M	L	H
C305.6	H	H	H	-	-	L	M	-	M	L	H
Avg.	3.00	3.00	3.00	1.00	1.00	1.83	1.83	1.33	2.40	1.80	3.00

C306: Physical Pharmacy-I (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C306.1	H	H	H	H	L	M	M	M	M	M	H
C306.2	H	H	H	H	M	M	M	M	L	H	H
C306.3	H	H	H	H	L	M	L	M	M	L	H
C306.4	H	M	H	H	L	M	-	M	M	L	M
C306.5	H	H	H	H	L	M	-	M	M	L	L
C306.6	H	H	H	H	L	M	L	M	M	L	H
Avg.	3.00	2.83	3.00	3.00	1.16	2.00	1.50	2.00	1.83	1.50	2.50

C307: Pharmaceutical Microbiology (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C307.1	H	-	M	-	-	M	-	H	H	L	M
C307.2	H	-	M	-	-	M	L	H	H	L	M
C307.3	H	-	M	-	-	M	L	H	H	L	M
C307.4	H	-	M	-	-	M	L	H	M	M	M
C307.5	H	-	L	-	-	L	-	M	M	L	M
C307.6	H	-	M	-	-	L	M	M	H	L	M
Avg.	3.00	-	1.83	-	-	1.66	1.25	2.66	2.66	1.16	2.00

C308: Pharmaceutical Engineering (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C308.1	H	-	M	-	M	-	-	-	-	L	L
C308.2	M	L	M	H	L	L	-	-	L	L	M
C308.3	H	-	L	M	-	-	L	-	L	M	M
C308.4	H	H	M	H	L	L	L	-	-	M	M
C308.5	H	M	M	H	-	L	L	-	-	M	M
C308.6	H	-	M	H	-	-	-	-	-	-	M
Avg.	2.83	2.00	1.83	2.80	1.33	1.00	1.00	-	1.00	1.60	1.83



B. PHARM. SEM.-IV**C401: Organic Chemistry-III (TH)**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C401.1	H	-	-	H	L	-	L	L	-	L	M
C401.2	H	L	M	M	-	-	-	L	M	M	H
C401.3	H	M	M	M	-	-	L	L	L	H	H
C401.4	H	M	M	M	-	M	-	L	L	H	H
C401.5	H	M	M	H	M	M	L	L	H	H	H
C401.6	H	L	L	M	-	M	M	M	M	M	H
Avg.	3.00	1.60	1.80	2.33	1.50	2.00	1.25	1.16	1.80	2.33	2.83

C402: Medicinal Chemistry-I (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C402.1	L	L	-	H	L	M	L	L	H	H	H
C402.2	H	L	L	M	-	M	-	L	H	H	H
C402.3	H	L	L	M	L	M	L	L	H	H	H
C402.4	H	L	L	M	-	M	-	M	H	H	H
C402.5	H	L	-	M	-	M	-	L	H	H	H
C402.6	H	L	M	M	-	H	L	L	H	H	H
AVG	2.66	1.00	1.25	2.16	1.00	2.16	1.00	1.16	3.00	3.00	3.00

C403: Physical Pharmaceutics-II (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C403.1	H	M	H	M	L	M	L	H	M	H	H
C403.2	H	M	H	H	L	H	L	M	H	H	H
C403.3	H	M	H	H	L	H	L	H	M	H	H
C403.4	H	M	H	H	L	H	L	M	H	H	H
C403.5	H	H	H	H	-	M	L	H	H	H	H
C403.6	H	H	H	H	L	L	L	H	H	H	H
Avg.	3.00	2.33	3.00	2.83	1.00	2.33	1.00	2.66	2.66	3.00	3.00

C404: Pharmacology-I (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C404.1	H	-	-	L	-	L	H	H	H	H	H
C404.2	H	-	-	L	-	L	H	H	H	H	H
C404.3	H	-	-	L	-	L	H	H	H	H	H
C404.4	H	-	-	L	-	L	H	H	H	H	H
C404.5	H	-	-	L	-	L	H	H	H	H	H
C404.6	H	-	-	L	-	L	H	H	H	H	H
Avg.	3.00	-	-	1.00	-	1.00	3.00	3.00	3.00	3.00	3.00



C405: Pharmacognosy and Phytochemistry (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C 405.1	H	H	M	H	H	M	M	H	L	H	H
C 405.2	H	L	L	H	L	M	M	M	M	M	H
C 405.3	H	H	M	M	L	M	H	H	M	M	H
C 405.4	H	M	L	M	L	L	L	L	L	L	H
C 405.5	H	H	H	H	L	L	L	L	M	L	H
C 405.6	H	L	L	H	L	L	H	L	L	M	H
Avg.	3.00	2.16	1.66	2.66	1.33	1.50	2.00	1.83	1.50	1.83	3.00

C406: Medicinal Chemistry-(PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C406.1	L	L	-	M	H	M	-	L	H	H	L
C406.2	H	L	L	M	-	M	-	L	H	H	H
C406.3	H	L	-	M	L	M	-	L	H	H	H
C406.4	H	L	L	M	-	M	-	L	H	H	H
C406.5	H	L	-	M	-	M	-	L	H	H	H
C406.6	H	L	M	M	H	H	-	M	H	H	M
Avg.	2.66	1.00	1.33	2.00	2.33	2.16	-	1.16	3.00	3.00	2.50

C407: Physical Pharmaceutics-II (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C407.1	H	H	H	H	L	M	M	H	M	L	H
C407.2	H	M	H	H	L	H	M	H	L	L	H
C407.3	H	H	H	H	L	H	M	H	M	M	H
C407.4	H	H	H	H	L	H	M	H	M	H	H
C407.5	H	M	H	H	L	M	L	H	M	M	H
C407.6	H	H	H	H	L	M	L	H	H	M	H
Avg.	3.00	2.66	3.00	3.00	1.00	2.50	1.66	3.00	2.00	1.83	3.00

C408: Pharmacology-I (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C408.1	H	L	-	H	-	L	H	H	H	H	H
C408.2	H	M	H	H	-	L	H	H	H	H	H
C408.3	H	-	H	H	-	L	H	H	H	H	H
C408.4	H	-	H	H	-	L	H	H	H	H	H
C408.5	H	M	H	H	-	L	H	H	H	H	H
C408.6	H	M	H	H	-	L	H	H	H	H	H
Avg.	3.00	1.75	3.00	3.00	-	1.00	3.00	3.00	3.00	3.00	3.00



C409: Pharmacognosy and Phytochemistry-I (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C409.1	H	L	H	H	-	M	L	-	L	H	H
C409.2	H	L	H	H	-	M	-	-	M	H	H
C409.3	H	-	H	M	-	L	-	-	L	M	H
C409.4	H	M	L	M	-	L	-	-	M	M	H
C409.5	M	-	M	M	-	M	-	-	L	M	H
C409.6	M	-	M	M	-	-	-	-	L	M	H
Avg.	2.66	1.33	2.33	2.33	-	1.60	1.00	-	1.33	2.33	3.00

B. PHARM. SEM.-V
C501: Medicinal Chemistry-II (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C501.1	H	-	M	M	-	-	L	H	H	M	H
C501.2	H	-	M	M	L	L	L	H	H	L	M
C501.3	H	-	H	H	L	M	-	H	M	H	H
C501.4	H	-	M	H	L	L	M	H	H	M	H
C501.5	H	L	L	M	-	L	L	H	H	L	M
C501.6	H	H	H	M	-	L	M	M	L	H	H
Avg.	3.00	2.00	2.16	2.33	1.00	1.20	1.40	2.83	2.50	2.00	2.66

C502: Industrial Pharmacy-I (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C502.1	H	M	M	M	-	H	M	M	H	L	M
C502.2	H	H	H	H	M	H	M	H	M	M	H
C502.3	H	H	H	H	M	H	M	H	M	M	H
C502.4	H	M	L	H	M	H	L	H	H	M	H
C502.5	H	H	H	H	M	H	M	H	M	H	H
C502.6	H	M	H	M	M	H	M	H	H	M	H
Avg.	3.00	2.50	2.50	2.66	2.00	3.00	1.83	2.83	2.50	2.00	2.83

C503: Pharmacology-II (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C503.1	H	L	M	M	-	H	L	L	H	M	L
C503.2	H	L	L	M	-	H	L	L	H	L	M
C503.3	H	L	L	H	-	H	L	L	H	L	H
C503.4	H	L	L	H	-	H	L	H	M	M	H
C503.5	H	L	M	M	-	M	L	L	H	L	H
C503.6	H	L	H	H	-	H	L	M	M	L	M
Avg.	3.00	1.00	1.66	2.50	-	2.83	1.00	1.50	2.66	1.33	2.33



C504: Pharmacognosy and Phytochemistry-II (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C504.1	H	H	H	H	L	L	M	M	M	M	H
C504.2	H	H	H	H	M	H	M	L	M	M	H
C504.3	H	H	H	L	L	M	H	L	H	M	H
C504.4	H	H	H	H	L	L	H	L	L	M	H
C504.5	H	H	H	H	H	L	M	M	L	L	H
C504.6	H	H	H	H	L	L	L	L	L	L	H
Avg.	3.00	3.00	3.00	2.66	1.5	1.5	2.16	1.33	1.66	1.66	3.00

C505: Pharmaceutical Jurisprudence (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C505.1	H	M	M	M	L	H	H	L	H	M	L
C505.2	H	L	L	M	L	H	H	L	H	L	M
C505.3	H	L	L	H	L	H	M	L	H	L	H
C505.4	H	L	L	H	H	H	H	H	H	M	H
C505.5	H	M	M	M	H	M	H	L	H	L	H
C505.6	H	H	H	H	M	H	H	M	H	L	M
Avg.	3.00	1.66	1.66	2.50	1.83	2.83	2.83	1.5	3.00	1.33	2.33

C506: Industrial Pharmacy-I (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C506.1	H	M	M	H	M	M	H	H	H	M	M
C506.2	M	H	H	H	M	M	H	H	M	M	H
C506.3	H	H	H	H	M	M	M	H	M	M	H
C506.4	H	M	L	H	M	H	L	H	H	M	M
C506.5	H	H	H	H	M	H	H	H	M	M	M
C506.6	H	M	H	M	M	H	M	H	H	M	H
Avg.	2.83	2.50	2.50	2.83	2.00	2.50	2.33	3.00	2.50	2.00	2.50

C507: Pharmacology-II (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C507.1	H	L	M	M	-	H	-	L	H	M	L
C507.2	H	L	L	M	-	H	-	L	H	L	M
C507.3	H	L	L	H	-	H	-	L	H	L	H
C507.4	H	L	L	H	-	H	-	H	H	M	H
C507.5	H	L	M	M	-	M	-	L	H	L	H
C507.6	H	L	H	H	-	H	-	M	H	L	M
Avg.	3.00	1.00	1.66	2.50	-	2.83	-	1.50	3.00	1.33	2.33



C508: Pharmacognosy and Phytochemistry-II (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C508.1	H	H	H	M	L	L	L	L	L	L	H
C508.2	H	H	H	H	L	L	L	L	L	L	H
C508.3	H	H	H	H	L	L	L	L	L	L	H
C508.4	H	H	H	H	L	L	L	L	L	L	H
C508.5	H	H	H	M	L	L	L	L	L	L	H
C508.6	M	L	L	L	L	L	L	L	L	L	H
Avg.	2.83	2.66	2.66	2.33	1.00	1.00	1.00	1.00	1.00	1.00	3.00

B. PHARM. SEM.-VI**C601: Medicinal Chemistry- III (TH)**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C601.1	M	H	M	L	-	L	-	-	L	L	M
C601.2	H	L	L	L	-	L	L	-	-	M	L
C601.3	M	H	M	M	-	-	M	-	M	L	M
C601.4	H	M	L	L	-	L	-	-	-	L	L
C601.5	H	H	L	M	-	L	L	-	L	L	L
C601.6	M	L	H	L	-	-	-	-	-	M	L
Avg.	2.50	2.16	1.66	1.33	-	1.00	1.33	-	1.33	1.33	1.33

C602: Pharmacology-III (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C602.1	H	M	M	M	L	L	H	L	H	M	L
C602.2	H	L	L	M	L	-	H	L	M	L	M
C602.3	H	L	L	H	L	L	M	L	H	L	H
C602.4	H	L	L	H	H	L	H	H	H	M	H
C602.5	H	M	M	M	H	L	H	L	H	L	H
C602.6	H	H	H	H	M	-	H	M	M	L	M
Avg.	3.00	1.66	1.66	2.50	1.83	1.00	2.83	1.50	2.66	1.33	2.33

C603: Herbal Drug Technology (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C603.1	M	L	L	L	L	L	L	L	L	L	M
C603.2	M	L	L	L	L	L	M	L	L	L	M
C603.3	L	L	L	L	L	L	L	L	L	L	M
C603.4	H	H	H	L	H	H	M	L	L	L	M
C603.5	H	L	L	L	L	L	L	L	L	L	M
C603.6	M	L	L	L	L	L	L	L	L	L	L
Avg.	2.16	1.33	1.33	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.83



C604: Biopharmaceutics and Pharmacokinetics (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C604.1	H	L	M	-	-	M	-	H	H	L	M
C604.2	H	-	M	-	-	M	L	H	H	L	L
C604.3	H	L	M	-	L	M	L	M	H	L	M
C604.4	H	M	M	-	-	M	L	H	M	M	M
C604.5	H	-	L	M	-	L	-	M	M	L	L
C604.6	H	L	M	-	-	L	M	M	H	L	L
Avg.	3.00	1.25	1.83	2.00	1.00	1.66	1.25	2.50	2.66	1.16	1.50

C605: Pharmaceutical Biotechnology (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C605.1	H	L	M	L	-	M	L	-	M	M	H
C605.2	H	H	H	H	-	M	H	M	H	H	H
C605.3	H	H	H	H	M	M	H	M	H	H	H
C605.4	H	L	L	H	L	L	M	M	M	H	H
C605.5	H	H	H	H	H	H	H	H	H	H	H
C605.6	H	H	H	H	H	H	H	H	H	H	H
Avg.	3.00	2.33	2.50	2.66	2.25	2.16	2.50	2.40	2.66	2.83	3.00

C606: Pharmaceutical Quality Assurance (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C606.1	H	M	M	M	L	M	H	M	H	M	H
C606.2	H	H	M	L	-	M	L	L	M	L	M
C606.3	H	H	H	H	M	H	H	H	H	L	M
C606.4	H	L	L	M	L	L	L	L	M	M	M
C606.5	H	H	H	H	H	H	H	M	H	H	H
C606.6	H	H	H	H	M	M	H	M	L	H	H
Avg.	3.00	2.50	2.33	2.33	1.80	2.16	2.33	1.83	2.33	2.00	2.50

C607: Medicinal Chemistry- III (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C607.1	H	H	H	L	-	L	-	-	M	L	M
C607.2	H	L	M	M	-	M	L	-	-	M	L
C607.3	H	-	-	L	-	-	M	-	L	L	M
C607.4	H	H	L	L	-	L	-	-	-	L	L
C607.5	H	L	L	M	-	M	L	-	L	L	M
C607.6	H	M	H	L	-	-	-	-	-	M	L
Avg.	3.00	2.00	2.00	1.33	-	1.50	1.33	-	1.33	1.33	1.50



C608: Pharmacology-III (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C608.1	H	M	M	M	L	L	H	L	H	M	L
C608.2	H	L	L	M	L	L	L	L	H	L	M
C608.3	H	L	L	H	L	L	M	L	H	L	H
C608.4	H	L	L	H	H	L	H	H	H	M	H
C608.5	H	M	M	M	H	L	H	L	H	L	H
C608.6	H	H	H	H	M	L	L	M	H	L	M
Avg.	3.00	1.66	1.66	2.50	1.83	1.00	2.16	1.50	3.00	1.33	2.33

C609: Herbal Drug Technology (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C609.1	H	H	H	H	L	L	L	L	L	L	H
C609.2	M	M	M	M	L	L	L	L	L	L	M
C609.3	H	H	H	M	M	L	H	M	M	M	H
C609.4	H	H	H	H	L	L	M	M	L	L	M
C609.5	H	H	H	H	M	L	M	M	L	L	H
C609.6	M	M	M	M	L	L	L	L	L	L	M
Avg.	2.66	2.66	2.66	2.50	1.33	1.00	1.66	1.50	1.16	1.16	2.50

B. PHARM. SEM.-VII
C701: Instrumental Methods of Analysis (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C701.1	H	H	H	L	-	L	-	-	L	M	M
C701.2	H	M	M	L	-	L	L	-	-	M	L
C701.3	H	-	-	M	-	-	L	-	L	L	M
C701.4	H	M	H	L	-	L	-	-	-	M	L
C701.5	H	L	H	M	-	L	L	-	L	L	M
C701.6	H	H	M	L	-	-	-	-	-	M	L
Avg.	3.00	2.20	2.60	1.33	-	1.00	1.00	-	1.00	1.66	1.50

C702: Industrial Pharmacy II (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C702.1	H	H	H	H	H	H	H	H	M	H	H
C702.2	H	H	H	H	H	H	H	H	M	H	H
C702.3	H	H	H	M	H	H	H	H	M	H	H
C702.4	H	H	H	M	H	H	H	H	M	H	H
C702.5	H	H	H	H	M	H	H	H	M	H	H
C702.6	H	H	H	H	M	H	H	H	M	H	H
Avg.	3.00	3.00	3.00	2.66	2.66	3.00	3.00	3.00	2.00	3.00	3.00



C703: Pharmacy Practice (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C703.1	H	-	-	-	H	H	H	H	H	H	H
C703.2	H	-	-	L	H	H	H	H	H	H	H
C703.3	H	H	M	M	H	H	H	H	H	H	H
C703.4	H	-	M	M	H	H	H	H	H	H	H
C703.5	H	H	H	H	H	H	H	H	H	H	H
C703.6	H	-	-	-	-	H	H	H	H	H	H
Avg.	3.00	3.00	2.33	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

C704: Novel Drug Delivery System (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C704.1	H	H	M	H	L	H	H	H	H	M	H
C704.2	H	H	H	H	L	M	H	M	H	M	M
C704.3	H	H	H	M	-	M	H	M	H	M	M
C704.4	H	H	M	H	-	M	M	M	H	M	M
C704.5	H	H	M	H	-	M	M	M	H	M	M
C704.6	H	M	M	H	-	M	M	M	H	M	H
Avg.	3.00	2.83	2.33	2.83	1.00	2.16	2.50	2.16	3.00	2.00	2.33

C705: Instrumental Methods of Analysis (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C705.1	H	M	H	L	-	L	-	-	M	L	M
C705.2	H	L	M	L	-	M	L	-	-	M	L
C705.3	H	L	-	L	-	-	M	-	M	L	L
C705.4	H	M	M	L	-	L	-	-	-	L	L
C705.5	H	M	L	M	-	M	L	-	L	L	M
C705.6	H	L	H	L	-	-	-	-	-	M	L
Avg.	3.00	1.50	2.20	1.16	-	1.50	1.33	-	1.66	1.33	1.33

C706: Practice School

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C706.1	H	-	-	-	H	H	H	H	H	H	H
C706.2	H	-	-	L	H	H	H	H	H	H	H
C706.3	H	H	M	M	H	H	H	H	H	H	H
C706.4	H	-	M	M	H	H	H	H	H	H	H
C706.5	H	H	H	H	H	H	H	H	H	H	H
C706.6	H	-	-	-	-	H	H	H	H	H	H
Avg.	3.00	3.00	2.33	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00



B. PHARM. SEM.-VIII**C801: Biostatistics and Research Methodology (TH)**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C801.1	H	M	M	H	-	M	M	L	M	L	H
C801.2	H	H	H	H	-	M	M	M	M	L	H
C801.3	H	H	H	H	L	H	H	M	M	M	H
C801.4	H	H	H	H	L	M	L	L	M	L	H
C801.5	H	H	H	H	L	M	L	L	M	L	H
C801.6	H	H	H	H	L	L	L	M	M	L	H
Avg.	3.00	2.83	2.83	3.00	1.00	2.00	1.66	1.50	2.00	1.16	3.00

C802: Social and Preventive Pharmacy (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C802.1	H	M	M	H	M	M	H	H	H	H	H
C802.2	H	L	H	M	L	H	L	H	H	L	H
C802.3	H	H	H	H	L	M	L	H	H	L	H
C802.4	M	M	M	H	M	H	M	H	H	M	H
C802.5	H	M	H	H	M	H	M	H	M	M	M
C802.6	H	M	H	M	M	M	M	H	H	M	M
Avg.	2.83	2.00	2.66	2.66	1.66	2.50	1.83	3.00	2.83	1.83	2.66

C803: Pharma Marketing Management (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C803.1	H	H	H	L	H	H	M	H	M	M	M
C803.2	H	H	H	H	H	M	H	H	H	M	M
C803.3	H	H	H	H	M	L	M	L	L	M	M
C803.4	H	M	M	L	H	M	H	M	H	M	M
C803.5	H	H	M	L	H	M	H	H	M	M	M
C803.6	M	M	M	L	M	H	L	M	M	L	M
Avg.	2.83	2.66	2.50	1.66	2.66	2.16	2.33	2.33	2.16	1.83	2.00

C804: Pharmaceutical Regulatory Science (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C804.1	H	H	H	M	H	H	H	H	H	M	H
C804.2	H	H	H	M	H	H	H	H	H	M	H
C804.3	H	H	H	M	H	H	H	H	M	M	H
C804.4	H	H	H	H	H	H	H	H	H	M	H
C804.5	H	H	H	H	H	H	H	H	H	M	H
C804.6	H	H	H	H	H	H	H	H	H	M	H
Avg.	3.00	3.00	3.00	2.50	3.00	3.00	3.00	3.00	2.83	2.00	3.00



C805: Pharmacovigilance (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C805.1	H	-	-	-	H	H	H	H	H	H	H
C805.2	H	-	-	L	H	H	H	H	H	H	H
C805.3	H	H	M	M	H	H	H	H	H	H	H
C805.4	H	-	M	M	H	H	H	H	H	H	H
C805.5	H	H	H	H	H	H	H	H	H	H	H
C805.6	H	-	-	-	-	H	H	H	H	H	H
Avg.	3.00	3.00	2.33	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

C806: Quality Control and Standardization of Herbals (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C806.1	H	H	H	H	H	H	H	H	H	H	H
C806.2	H	H	H	H	H	H	H	M	M	H	H
C806.3	H	H	H	H	H	H	H	H	H	H	H
C806.4	H	H	H	H	M	H	H	M	M	H	H
C806.5	H	H	H	H	M	H	H	H	H	H	H
C806.6	H	H	H	H	M	H	H	M	H	H	H
Avg.	3.00	3.00	3.00	3.00	2.50	3.00	3.00	2.50	2.66	3.00	3.00

C807: Pharmacological Screening Methods (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C810.1	H	M	M	M	-	H	-	L	H	M	L
C810.2	H	L	L	M	-	H	-	L	H	L	M
C810.3	H	L	L	H	-	H	L	L	M	L	M
C810.4	H	M	L	L	-	H	-	M	H	M	H
C810.5	H	L	M	M	L	M	-	L	H	L	M
C810.6	H	L	H	L	-	H	-	M	M	M	M
Avg.	3.00	1.33	1.66	1.83	1.00	2.83	1.00	1.33	2.66	1.50	2.00

C808: Advanced Instrumentation Techniques (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C808.1	H	M	H	H	H	H	H	M	H	L	H
C808.2	H	H	H	H	H	H	H	M	H	L	H
C808.3	H	H	H	H	H	H	H	M	H	H	H
C808.4	H	H	H	H	M	H	H	M	H	H	H
C808.5	H	H	H	H	M	H	H	M	H	H	H
C808.6	H	H	H	H	M	H	H	M	H	H	H
Avg.	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00



C809: Project Work

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C813.1	H	M	H	H	H	H	H	M	H	L	H
C813.2	H	H	H	H	H	H	H	M	H	L	H
C813.3	H	H	H	H	H	H	H	M	H	H	H
C813.4	H	H	H	H	M	H	H	M	H	H	H
C813.5	H	H	H	H	M	H	H	M	H	H	H
C813.6	H	H	H	H	M	H	H	M	H	H	H
Avg.	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00



ANNEXURE I: PROGRAM OUTCOMES

- 1. Pharmacy Knowledge:** Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioral, social, and administrative pharmacy sciences; and manufacturing practices.
- 2. Planning Abilities:** Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.
- 3. Problem analysis:** Utilize the principles of scientific enquiry, thinking analytically, clearly and critically, while solving problems and making decisions during daily practice. Find, analyze, evaluate and apply information systematically and shall make defensible decisions.
- 4. Modern tool usage:** Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitations.
- 5. Leadership skills:** Understand and consider the human reaction to change, motivation issues, leadership and team-building when planning changes required for fulfillment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and well- being.
- 6. Professional Identity:** Understand, analyze and communicate the value of their professional roles in society (e.g. health care professionals, promoters of health, educators, managers, employers, employees).
- 7. Pharmaceutical Ethics:** Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behavior that recognizes cultural and personal variability in values, communication and lifestyles. Use ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.
- 8. Communication:** Communicate effectively with the pharmacy community and with society at large, such as, being able to comprehend and write effective reports, make effective presentations and documentation, and give and receive clear instructions.
- 9. The Pharmacist and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional pharmacy practice.
- 10. Environment and sustainability:** Understand the impact of the professional pharmacy solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- 11. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. Self-assessed and use feedback effectively from others to identify learning needs and to satisfy these needs on an ongoing basis.



**CO-PO Matrices of all Courses from 1st to 8th Semester
Academic Year- 2021-2022
B. Pharm. Sem.-I**

C101: Human Anatomy and Physiology-I (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C101.1	H	-	-	-	-	L	L	H	H	M	M
C101.2	H	-	-	-	-	L	L	H	H	M	M
C101.3	H	-	-	-	-	-	-	M	M	M	M
C101.4	H	-	-	-	-	L	L	H	H	M	L
C101.5	H	-	-	-	-	-	L	H	H	M	L
C101.6	H	-	-	-	-	L	-	H	H	M	M
Avg.	3.00	-	-	-	-	1.00	1.00	2.83	2.83	3.00	1.66

C102: Pharmaceutical Analysis-I (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C102.1	M	H	M	L	-	L	-	-	L	L	M
C102.2	H	L	L	L	-	L	L	-	-	M	L
C102.3	M	H	M	M	-	-	M	-	M	L	M
C102.4	H	M	L	L	-	L	-	-	-	L	L
C102.5	H	H	L	M	-	L	L	-	L	L	L
C102.6	M	L	H	L	-	-	-	-	-	M	L
Avg.	2.50	2.16	1.66	1.33	-	1.00	1.33	-	1.33	1.33	1.33

C103: PHARMACEUTICS (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C103.1	M	M	H	L	L	H	M	L	M	-	M
C103.2	H	M	L	M	-	H	L	M	H	-	H
C103.3	H	H	H	H	H	H	M	H	H	H	H
C103.4	H	H	H	H	M	H	M	H	H	H	H
C103.5	H	H	H	H	L	H	M	M	H	H	H
C103.6	H	H	H	H	M	H	M	M	H	H	H
Avg.	2.83	2.66	2.66	2.50	1.80	3.00	1.83	2.16	2.83	3.00	2.83

C104: Pharmaceutical Inorganic Chemistry (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C104.1	H	-	-	-	-	L	L	H	H	M	M
C104.2	H	-	-	-	-	L	L	H	H	M	M
C104.3	H	-	-	-	-	-	-	M	M	M	M
C104.4	H	-	-	-	-	L	L	H	H	M	L
C104.5	H	-	-	-	-	-	L	H	H	M	L
C104.6	H	-	-	-	-	L	-	H	H	M	M
Avg.	3.00	-	-	-	-	1.00	1.00	2.83	2.83	2.00	1.66



C105 Communication Skills (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C105.1	H	-	L	-	-	M	-	M	-	L	L
C105.2	H	-	-	-	-	M	L	M	M	L	L
C105.3	M	-	L	-	-	M	L	L	H	M	L
C105.4	H	-	L	-	-	-	-	L	M	L	M
C105.5	H	-	-	-	-	-	-	L	-	-	M
C105.6	H	-	-	M	-	M	L	M	H	L	L
Average	2.83	-	1.00	2.00	-	2.00	1.00	1.50	2.50	1.20	1.33

C107: Human Anatomy and Physiology-I (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C101.1	H	-	-	-	-	M	-	M	-	L	L
C101.2	H	-	-	-	-	M	L	M	M	L	L
C101.3	M	-	L	-	-	M	L	M	H	M	L
C101.4	H	-	L	-	-	-	-	L	M	L	M
C101.5	H	-	-	-	-	-	-	L	-	-	L
C101.6	H	-	-	-	-	M	L	M	H	L	L
Avg.	2.83	-	1.00	-	-	2.00	1.00	1.66	2.50	1.20	1.16

C108: Pharmaceutical Analysis I P (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C108.1	H	H	H	L	-	L	-	-	M	L	M
C108.2	H	L	M	M	-	M	L	-	-	M	L
C108.3	H	-	-	L	-	-	M	-	L	L	M
C108.4	H	H	L	L	-	L	-	-	-	L	L
C108.5	H	L	L	M	-	M	L	-	L	L	M
C108.6	H	M	H	L	-	-	-	-	-	M	L
Avg.	3.00	2.00	2.00	1.33	-	1.50	1.33	-	1.33	1.33	1.50

C109: Pharmaceutics (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C109.1	H	H	H	H	M	H	L	M	H	M	H
C109.2	H	H	H	H	M	H	L	M	H	M	H
C109.3	H	H	H	H	M	H	L	M	H	M	H
C109.4	H	H	H	H	M	H	L	H	H	M	H
C109.5	H	H	H	H	M	H	L	H	H	M	H
C109.6	H	H	H	H	M	H	L	M	H	M	H
Avg.	3.00	3.00	3.00	3.00	2.00	3.00	1.00	2.33	3.00	2.00	3.00



C110: Pharmaceutical Inorganic Chemistry (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C110.1	H	-	-	-	-	M	-	M	-	L	L
C110.2	H	-	-	-	-	M	L	M	M	L	L
C110.3	M	-	L	-	-	M	L	M	H	M	L
C110.4	H	-	L	-	-	-	-	L	M	L	M
C110.5	H	-	-	-	-	-	-	L	-	-	L
C110.6	H	-	-	-	-	M	L	M	H	L	L
Avg.	2.83	-	1.00	-	-	2.00	1.00	1.66	2.50	1.20	1.16

C111: Communication Skills (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C111.1	H	H	H	L	-	L	-	-	L	M	M
C111.2	H	M	M	L	-	L	L	-	-	M	L
C111.3	H	-	-	M	-	-	L	-	L	L	M
C111.4	H	M	H	L	-	L	-	-	-	M	L
C111.5	H	L	H	M	-	L	L	-	L	L	M
C111.6	H	H	M	L	-	-	-	-	-	M	L
Avg.	3.00	2.20	2.60	1.33	-	1.00	1.00	-	1.00	1.66	1.50

B. PHARM. SEM.-II
C201: Human Anatomy and Physiology (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C201.1	H	L	-	M	-	M	-	L	H	H	H
C201.2	H	L	-	M	-	M	-	L	H	H	H
C201.3	H	L	-	M	L	M	-	L	H	H	H
C201.4	H	L	L	M	-	M	-	M	H	H	H
C201.5	H	L	-	M	-	M	-	L	H	H	H
C201.6	H	L	M	M	-	H	-	L	H	H	H
Avg.	3.00	1.00	1.5	2.00	1.00	2.16	-	1.16	3.00	3.00	3.00

C202: Pharmaceutical Organic Chemistry (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C202.1	H	-	-	-	-	L	L	M	L	H	H
C202.2	H	-	H	-	-	H	-	M	M	-	H
C202.3	H	H	H	-	-	M	-	-	M	L	H
C202.4	H	H	H	-	-	M	-	-	H	L	H
C202.5	H	-	H	-	-	M	-	-	H	M	H
C201.6	H	-	H	-	-	M	-	-	H	M	H
Avg.	3.00	3.00	3.00	-	-	2.00	1.00	2.00	2.33	1.80	3.00



C203: Biochemistry (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C203.1	H	H	H	L	-	L	-	-	L	M	M
C203.2	H	M	M	L	-	L	L	-	-	M	L
C203.3	H	-	-	M	-	-	L	-	L	L	M
C203.4	H	M	H	L	-	L	-	-	-	M	L
C203.5	H	L	H	M	-	L	L	-	L	L	M
C203.6	H	H	M	L	-	-	-	-	-	M	L
Avg.	3.00	2.20	2.60	1.33	-	1.00	1.00	-	1.00	1.66	1.50

C204: Pathophysiology (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C204.1	H	-	M	-	-	M	-	H	H	L	M
C204.2	H	-	M	-	-	M	L	H	H	L	M
C204.3	H	-	M	-	-	M	L	H	H	L	M
C204.4	H	-	M	-	-	M	L	H	M	M	M
C204.5	H	-	L	-	-	L	-	M	M	L	M
C204.6	H	-	M	-	-	L	M	M	H	L	M
Avg.	3.00	-	1.83	-	-	1.66	1.25	2.66	2.66	1.16	2.00

C205: Computer Application in Pharmacy (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C205.1	H	M	-	L	-	-	-	-	H	H	H
C205.2	H	M	-	M	-	M	-	-	H	H	H
C205.3	H	M	-	L	-	-	-	M	H	H	H
C205.4	H	H	-	L	L	-	-	H	H	H	H
C205.5	H	H	H	H	H	H	H	H	H	H	H
C205.6	H	H	M	H	L	H	-	-	H	H	H
Avg.	3.00	2.50	2.50	1.83	1.66	2.66	3.00	2.66	3.00	3.00	3.00

C206: Environmental Sciences (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C206.1	H	M	H	L	-	L	-	-	M	L	M
C206.2	H	L	M	L	-	M	L	-	-	M	L
C206.3	H	L	-	L	-	-	M	-	M	L	L
C206.4	H	M	M	L	-	L	-	-	-	L	L
C206.5	H	M	L	M	-	M	L	-	L	L	M
C206.6	H	L	H	L	-	-	-	-	-	M	L
Avg.	3.00	1.50	2.20	1.16	-	1.50	1.33	-	1.66	1.33	1.33



C207: Human Anatomy and Physiology (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C207.1	H	M	-	L	-	-	-	-	H	H	H
C207.2	H	M	-	M	-	M	-	-	H	H	H
C207.3	H	M	-	L	-	-	-	M	H	H	H
C207.4	H	H	-	L	L	-	-	H	H	H	H
C207.5	H	H	H	H	H	H	H	H	H	H	H
C207.6	H	H	M	H	L	H	-	-	H	H	H
Avg.	3.00	2.5	2.50	1.83	1.33	2.66	3.00	2.66	3.00	3.00	3.00

C208: Pharmaceutical Organic Chemistry (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C208.1	H	-	H	-	-	-	-	M	-	-	H
C208.2	H	-	H	-	-	-	-	M	M	-	H
C208.3	H	-	H	-	-	M	-	M	H	-	H
C208.4	H	-	H	-	-	M	-	L	M	-	H
C208.5	H	H	H	-	-	-	-	L	-	-	H
C208.6	H	H	H	-	-	M	-	M	H	-	H
Avg.	3.00	3.00	3.00	-	-	2.00	-	1.66	2.50	-	3.00

C 209: Biochemistry (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C209.1	H	M	H	L	-	L	-	-	M	L	M
C209.2	H	L	M	L	-	M	L	-	-	M	L
C209.3	H	L	-	L	-	-	M	-	M	L	L
C209.4	H	M	M	L	-	L	-	-	-	L	L
C209.5	H	M	L	M	-	M	L	-	L	L	M
C209.6	H	L	H	L	-	-	-	-	-	M	L
Avg.	3.00	1.5	2.20	1.16	-	1.50	1.33	-	1.66	1.33	1.33

C210: Computer Application in Pharmacy (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C210.1	H	M	-	L	-	-	-	-	H	H	H
C210.2	H	M	-	M	-	M	-	-	H	H	H
C210.3	H	M	-	L	-	-	-	M	H	H	H
C210.4	H	H	-	L	L	-	-	H	H	H	H
C210.5	H	H	H	H	H	H	H	H	H	H	H
C210.6	H	H	M	H	L	H	-	-	H	H	H
Avg.	3.00	2.5	2.50	1.83	1.66	2.66	3.00	2.66	3.00	3.00	3.00



B. PHARM. SEM.-III**C301: Pharmaceutical Organic Chemistry-II (TH)**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C301.1	H	H	H	L	-	L	-	-	L	M	M
C301.2	H	M	H	L	-	L	L	-	-	M	L
C301.3	H	H	H	M	-	-	L	-	L	L	M
C301.4	H	M	H	L	-	L	-	-	-	M	L
C301.5	H	H	H	M	-	L	L	-	L	L	M
C301.6	H	M	H	L	-	-	-	-	-	M	L
Avg.	3.00	2.50	3.00	1.33	-	1.00	1.00	-	1.00	1.66	1.50

C302: Physical Pharmacy-I (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C302.1	H	M	H	H	L	L	L	M	L	M	H
C302.2	H	H	H	M	L	L	-	L	-	H	H
C302.3	H	M	H	H	L	H	L	L	L	H	H
C302.4	H	M	H	H	L	H	L	M	M	M	H
C302.5	H	H	H	H	-	L	M	M	M	M	M
C302.6	H	H	H	H	L	M	L	L	M	M	H
Avg.	3.00	2.50	3.00	2.83	1.00	1.83	1.20	1.50	1.60	2.33	2.83

C303: Pharmaceutical Microbiology (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C303.1	H	M	H	L	-	L	-	M	M	L	M
C303.2	H	L	M	L	-	M	L	-	-	M	L
C303.3	M	L	-	L	-	-	M	-	M	L	L
C303.4	H	L	M	L	-	L	-	-	-	L	L
C303.5	H	M	L	M	-	M	L	-	L	L	M
C303.6	M	L	H	L	-	-	-	L	-	M	L
Avg.	2.66	1.33	2.20	1.16	-	1.50	1.33	1.50	1.66	1.33	1.33

C304: Pharmaceutical Engineering (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C304.1	H	M	H	H	L	H	H	-	-	-	H
C304.2	H	H	H	H	L	H	M	-	H	-	H
C304.3	H	H	H	H	H	H	H	L	H	H	H
C304.4	H	H	H	H	H	H	M	M	H	H	H
C304.5	H	H	H	M	H	H	M	-	M	H	H
C304.6	H	H	H	H	M	M	M	-	H	H	M
Avg.	3.00	2.83	3.00	2.83	2.16	2.83	2.33	1.50	2.80	3.00	2.83



C305: Pharmaceutical Organic Chemistry (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C305.1	H	H	H	L	L	H	M	L	H	H	H
C305.2	H	H	H	L	L	H	M	L	H	H	H
C305.3	H	H	H	L	L	M	L	M	-	-	H
C305.4	H	H	H	-	-	L	M	-	M	L	H
C305.5	H	H	H	-	-	L	M	-	M	L	H
C305.6	H	H	H	-	-	L	M	-	M	L	H
Avg.	3.00	3.00	3.00	1.00	1.00	1.83	1.83	1.33	2.40	1.80	3.00

C306: Physical Pharmacy-I (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C306.1	H	H	H	H	L	M	M	M	M	M	H
C306.2	H	H	H	H	M	M	M	M	L	H	H
C306.3	H	H	H	H	L	M	L	M	M	L	H
C306.4	H	M	H	H	L	M	-	M	M	L	M
C306.5	H	H	H	H	L	M	-	M	M	L	L
C306.6	H	H	H	H	L	M	L	M	M	L	H
Avg.	3.00	2.83	3.00	3.00	1.16	2.00	1.50	2.00	1.83	1.50	2.50

C307: Pharmaceutical Microbiology (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C307.1	H	-	M	-	-	M	-	H	H	L	M
C307.2	H	-	M	-	-	M	L	H	H	L	M
C307.3	H	-	M	-	-	M	L	H	H	L	M
C307.4	H	-	M	-	-	M	L	H	M	M	M
C307.5	H	-	L	-	-	L	-	M	M	L	M
C307.6	H	-	M	-	-	L	M	M	H	L	M
Avg.	3.00	-	1.83	-	-	1.66	1.25	2.66	2.66	1.16	2.00

C308: Pharmaceutical Engineering (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C308.1	H	-	M	-	M	-	-	-	-	L	L
C308.2	M	L	M	H	L	L	-	-	L	L	M
C308.3	H	-	L	M	-	-	L	-	L	M	M
C308.4	H	H	M	H	L	L	L	-	-	M	M
C308.5	H	M	M	H	-	L	L	-	-	M	M
C308.6	H	-	M	H	-	-	-	-	-	-	M
Avg.	2.83	2.00	1.83	2.80	1.33	1.00	1.00	-	1.00	1.60	1.83



B. PHARM. SEM.-IV**C401: Organic Chemistry-III (TH)**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C401.1	H	-	-	H	L	-	L	L	-	L	M
C401.2	H	L	M	M	-	-	-	L	M	M	H
C401.3	H	M	M	M	-	-	L	L	L	H	H
C401.4	H	M	M	M	-	M	-	L	L	H	H
C401.5	H	M	M	H	M	M	L	L	H	H	H
C401.6	H	L	L	M	-	M	M	M	M	M	H
Avg.	3.00	1.60	1.80	2.33	1.50	2.00	1.25	1.16	1.80	2.33	2.83

C402: Medicinal Chemistry-I (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C402.1	L	L	-	H	L	M	L	L	H	H	H
C402.2	H	L	L	M	-	M	-	L	H	H	H
C402.3	H	L	L	M	L	M	L	L	H	H	H
C402.4	H	L	L	M	-	M	-	M	H	H	H
C402.5	H	L	-	M	-	M	-	L	H	H	H
C402.6	H	L	M	M	-	H	L	L	H	H	H
AVG	2.66	1.00	1.25	2.16	1.00	2.16	1.00	1.16	3.00	3.00	3.00

C403: Physical Pharmaceutics-II (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C403.1	H	M	H	M	L	M	L	H	M	H	H
C403.2	H	M	H	H	L	H	L	M	H	H	H
C403.3	H	M	H	H	L	H	L	H	M	H	H
C403.4	H	M	H	H	L	H	L	M	H	H	H
C403.5	H	H	H	H	-	M	L	H	H	H	H
C403.6	H	H	H	H	L	L	L	H	H	H	H
Avg.	3.00	2.33	3.00	2.83	1.00	2.33	1.00	2.66	2.66	3.00	3.00

C404: Pharmacology-I (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C404.1	H	-	-	L	-	L	H	H	H	H	H
C404.2	H	-	-	L	-	L	H	H	H	H	H
C404.3	H	-	-	L	-	L	H	H	H	H	H
C404.4	H	-	-	L	-	L	H	H	H	H	H
C404.5	H	-	-	L	-	L	H	H	H	H	H
C404.6	H	-	-	L	-	L	H	H	H	H	H
Avg.	3.00	-	-	1.00	-	1.00	3.00	3.00	3.00	3.00	3.00



C405: Pharmacognosy and Phytochemistry (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C 405.1	H	H	M	H	H	M	M	H	L	H	H
C 405.2	H	L	L	H	L	M	M	M	M	M	H
C 405.3	H	H	M	M	L	M	H	H	M	M	H
C 405.4	H	M	L	M	L	L	L	L	L	L	H
C 405.5	H	H	H	H	L	L	L	L	M	L	H
C 405.6	H	L	L	H	L	L	H	L	L	M	H
Avg.	3.00	2.16	1.66	2.66	1.33	1.50	2.00	1.83	1.50	1.83	3.00

C406: Medicinal Chemistry-(PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C406.1	L	L	-	M	H	M	-	L	H	H	L
C406.2	H	L	L	M	-	M	-	L	H	H	H
C406.3	H	L	-	M	L	M	-	L	H	H	H
C406.4	H	L	L	M	-	M	-	L	H	H	H
C406.5	H	L	-	M	-	M	-	L	H	H	H
C406.6	H	L	M	M	H	H	-	M	H	H	M
Avg.	2.66	1.00	1.33	2.00	2.33	2.16	-	1.16	3.00	3.00	2.50

C407: Physical Pharmaceutics-II (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C407.1	H	H	H	H	L	M	M	H	M	L	H
C407.2	H	M	H	H	L	H	M	H	L	L	H
C407.3	H	H	H	H	L	H	M	H	M	M	H
C407.4	H	H	H	H	L	H	M	H	M	H	H
C407.5	H	M	H	H	L	M	L	H	M	M	H
C407.6	H	H	H	H	L	M	L	H	H	M	H
Avg.	3.00	2.66	3.00	3.00	1.00	2.50	1.66	3.00	2.00	1.83	3.00

C408: Pharmacology-I (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C408.1	H	L	-	H	-	L	H	H	H	H	H
C408.2	H	M	H	H	-	L	H	H	H	H	H
C408.3	H	-	H	H	-	L	H	H	H	H	H
C408.4	H	-	H	H	-	L	H	H	H	H	H
C408.5	H	M	H	H	-	L	H	H	H	H	H
C408.6	H	M	H	H	-	L	H	H	H	H	H
Avg.	3.00	1.75	3.00	3.00	-	1.00	3.00	3.00	3.00	3.00	3.00



C409: Pharmacognosy and Phytochemistry-I (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C409.1	H	L	H	H	-	M	L	-	L	H	H
C409.2	H	L	H	H	-	M	-	-	M	H	H
C409.3	H	-	H	M	-	L	-	-	L	M	H
C409.4	H	M	L	M	-	L	-	-	M	M	H
C409.5	M	-	M	M	-	M	-	-	L	M	H
C409.6	M	-	M	M	-	-	-	-	L	M	H
Avg.	2.66	1.33	2.33	2.33	-	1.60	1.00	-	1.33	2.33	3.00

B. PHARM. SEM.-V
C501: Medicinal Chemistry-II (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C501.1	H	-	M	M	-	-	L	H	H	M	H
C501.2	H	-	M	M	L	L	L	H	H	L	M
C501.3	H	-	H	H	L	M	-	H	M	H	H
C501.4	H	-	M	H	L	L	M	H	H	M	H
C501.5	H	L	L	M	-	L	L	H	H	L	M
C501.6	H	H	H	M	-	L	M	M	L	H	H
Avg.	3.00	2.00	2.16	2.33	1.00	1.20	1.40	2.83	2.50	2.00	2.66

C502: Industrial Pharmacy-I (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C502.1	H	M	M	M	-	H	M	M	H	L	M
C502.2	H	H	H	H	M	H	M	H	M	M	H
C502.3	H	H	H	H	M	H	M	H	M	M	H
C502.4	H	M	L	H	M	H	L	H	H	M	H
C502.5	H	H	H	H	M	H	M	H	M	H	H
C502.6	H	M	H	M	M	H	M	H	H	M	H
Avg.	3.00	2.50	2.50	2.66	2.00	3.00	1.83	2.83	2.50	2.00	2.83

C503: Pharmacology-II (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C503.1	H	L	M	M	-	H	L	L	H	M	L
C503.2	H	L	L	M	-	H	L	L	H	L	M
C503.3	H	L	L	H	-	H	L	L	H	L	H
C503.4	H	L	L	H	-	H	L	H	M	M	H
C503.5	H	L	M	M	-	M	L	L	H	L	H
C503.6	H	L	H	H	-	H	L	M	M	L	M
Avg.	3.00	1.00	1.66	2.50	-	2.83	1.00	1.50	2.66	1.33	2.33



C504: Pharmacognosy and Phytochemistry-II (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C504.1	H	H	H	H	L	L	M	M	M	M	H
C504.2	H	H	H	H	M	H	M	L	M	M	H
C504.3	H	H	H	L	L	M	H	L	H	M	H
C504.4	H	H	H	H	L	L	H	L	L	M	H
C504.5	H	H	H	H	H	L	M	M	L	L	H
C504.6	H	H	H	H	L	L	L	L	L	L	H
Avg.	3.00	3.00	3.00	2.66	1.5	1.5	2.16	1.33	1.66	1.66	3.00

C505: Pharmaceutical Jurisprudence (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C505.1	H	M	M	M	L	H	H	L	H	M	L
C505.2	H	L	L	M	L	H	H	L	H	L	M
C505.3	H	L	L	H	L	H	M	L	H	L	H
C505.4	H	L	L	H	H	H	H	H	H	M	H
C505.5	H	M	M	M	H	M	H	L	H	L	H
C505.6	H	H	H	H	M	H	H	M	H	L	M
Avg.	3.00	1.66	1.66	2.50	1.83	2.83	2.83	1.5	3.00	1.33	2.33

C506: Industrial Pharmacy-I (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C506.1	H	M	M	H	M	M	H	H	H	M	M
C506.2	M	H	H	H	M	M	H	H	M	M	H
C506.3	H	H	H	H	M	M	M	H	M	M	H
C506.4	H	M	L	H	M	H	L	H	H	M	M
C506.5	H	H	H	H	M	H	H	H	M	M	M
C506.6	H	M	H	M	M	H	M	H	H	M	H
Avg.	2.83	2.50	2.50	2.83	2.00	2.50	2.33	3.00	2.50	2.00	2.50

C507: Pharmacology-II (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C507.1	H	L	M	M	-	H	-	L	H	M	L
C507.2	H	L	L	M	-	H	-	L	H	L	M
C507.3	H	L	L	H	-	H	-	L	H	L	H
C507.4	H	L	L	H	-	H	-	H	H	M	H
C507.5	H	L	M	M	-	M	-	L	H	L	H
C507.6	H	L	H	H	-	H	-	M	H	L	M
Avg.	3.00	1.00	1.66	2.50	-	2.83	-	1.50	3.00	1.33	2.33



C508: Pharmacognosy and Phytochemistry-II (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C508.1	H	H	H	M	L	L	L	L	L	L	H
C508.2	H	H	H	H	L	L	L	L	L	L	H
C508.3	H	H	H	H	L	L	L	L	L	L	H
C508.4	H	H	H	H	L	L	L	L	L	L	H
C508.5	H	H	H	M	L	L	L	L	L	L	H
C508.6	M	L	L	L	L	L	L	L	L	L	H
Avg.	2.83	2.66	2.66	2.33	1.00	1.00	1.00	1.00	1.00	1.00	3.00

B. PHARM. SEM.-VI
C601: Medicinal Chemistry- III (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C601.1	M	H	M	L	-	L	-	-	L	L	M
C601.2	H	L	L	L	-	L	L	-	-	M	L
C601.3	M	H	M	M	-	-	M	-	M	L	M
C601.4	H	M	L	L	-	L	-	-	-	L	L
C601.5	H	H	L	M	-	L	L	-	L	L	L
C601.6	M	L	H	L	-	-	-	-	-	M	L
Avg.	2.50	2.16	1.66	1.33	-	1.00	1.33	-	1.33	1.33	1.33

C602: Pharmacology-III (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C602.1	H	M	M	M	L	L	H	L	H	M	L
C602.2	H	L	L	M	L	-	H	L	M	L	M
C602.3	H	L	L	H	L	L	M	L	H	L	H
C602.4	H	L	L	H	H	L	H	H	H	M	H
C602.5	H	M	M	M	H	L	H	L	H	L	H
C602.6	H	H	H	H	M	-	H	M	M	L	M
Avg.	3.00	1.66	1.66	2.50	1.83	1.00	2.83	1.50	2.66	1.33	2.33

C603: Herbal Drug Technology (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C603.1	M	L	L	L	L	L	L	L	L	L	M
C603.2	M	L	L	L	L	L	M	L	L	L	M
C603.3	L	L	L	L	L	L	L	L	L	L	M
C603.4	H	H	H	L	H	H	M	L	L	L	M
C603.5	H	L	L	L	L	L	L	L	L	L	M
C603.6	M	L	L	L	L	L	L	L	L	L	L
Avg.	2.16	1.33	1.33	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.83



C604: Biopharmaceutics and Pharmacokinetics (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C604.1	H	L	M	-	-	M	-	H	H	L	M
C604.2	H	-	M	-	-	M	L	H	H	L	L
C604.3	H	L	M	-	L	M	L	M	H	L	M
C604.4	H	M	M	-	-	M	L	H	M	M	M
C604.5	H	-	L	M	-	L	-	M	M	L	L
C604.6	H	L	M	-	-	L	M	M	H	L	L
Avg.	3.00	1.25	1.83	2.00	1.00	1.66	1.25	2.50	2.66	1.16	1.50

C605: Pharmaceutical Biotechnology (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C605.1	H	L	M	L	-	M	L	-	M	M	H
C605.2	H	H	H	H	-	M	H	M	H	H	H
C605.3	H	H	H	H	M	M	H	M	H	H	H
C605.4	H	L	L	H	L	L	M	M	M	H	H
C605.5	H	H	H	H	H	H	H	H	H	H	H
C605.6	H	H	H	H	H	H	H	H	H	H	H
Avg.	3.00	2.33	2.50	2.66	2.25	2.16	2.50	2.40	2.66	2.83	3.00

C606: Pharmaceutical Quality Assurance (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C606.1	H	M	M	M	L	M	H	M	H	M	H
C606.2	H	H	M	L	-	M	L	L	M	L	M
C606.3	H	H	H	H	M	H	H	H	H	L	M
C606.4	H	L	L	M	L	L	L	L	M	M	M
C606.5	H	H	H	H	H	H	H	M	H	H	H
C606.6	H	H	H	H	M	M	H	M	L	H	H
Avg.	3.00	2.50	2.33	2.33	1.80	2.16	2.33	1.83	2.33	2.00	2.50

C607: Medicinal Chemistry- III (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C607.1	H	H	H	L	-	L	-	-	M	L	M
C607.2	H	L	M	M	-	M	L	-	-	M	L
C607.3	H	-	-	L	-	-	M	-	L	L	M
C607.4	H	H	L	L	-	L	-	-	-	L	L
C607.5	H	L	L	M	-	M	L	-	L	L	M
C607.6	H	M	H	L	-	-	-	-	-	M	L
Avg.	3.00	2.00	2.00	1.33	-	1.50	1.33	-	1.33	1.33	1.50



C608: Pharmacology-III (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C608.1	H	M	M	M	L	L	H	L	H	M	L
C608.2	H	L	L	M	L	L	L	L	H	L	M
C608.3	H	L	L	H	L	L	M	L	H	L	H
C608.4	H	L	L	H	H	L	H	H	H	M	H
C608.5	H	M	M	M	H	L	H	L	H	L	H
C608.6	H	H	H	H	M	L	L	M	H	L	M
Avg.	3.00	1.66	1.66	2.50	1.83	1.00	2.16	1.50	3.00	1.33	2.33

C609: Herbal Drug Technology (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C609.1	H	H	H	H	L	L	L	L	L	L	H
C609.2	M	M	M	M	L	L	L	L	L	L	M
C609.3	H	H	H	M	M	L	H	M	M	M	H
C609.4	H	H	H	H	L	L	M	M	L	L	M
C609.5	H	H	H	H	M	L	M	M	L	L	H
C609.6	M	M	M	M	L	L	L	L	L	L	M
Avg.	2.66	2.66	2.66	2.50	1.33	1.00	1.66	1.50	1.16	1.16	2.50

B. PHARM. SEM.-VII
C701: Instrumental Methods of Analysis (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C701.1	H	H	H	L	-	L	-	-	L	M	M
C701.2	H	M	M	L	-	L	L	-	-	M	L
C701.3	H	-	-	M	-	-	L	-	L	L	M
C701.4	H	M	H	L	-	L	-	-	-	M	L
C701.5	H	L	H	M	-	L	L	-	L	L	M
C701.6	H	H	M	L	-	-	-	-	-	M	L
Avg.	3.00	2.20	2.60	1.33	-	1.00	1.00	-	1.00	1.66	1.50

C702: Industrial Pharmacy II (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C702.1	H	H	H	H	H	H	H	H	M	H	H
C702.2	H	H	H	H	H	H	H	H	M	H	H
C702.3	H	H	H	M	H	H	H	H	M	H	H
C702.4	H	H	H	M	H	H	H	H	M	H	H
C702.5	H	H	H	H	M	H	H	H	M	H	H
C702.6	H	H	H	H	M	H	H	H	M	H	H
Avg.	3.00	3.00	3.00	2.66	2.66	3.00	3.00	3.00	2.00	3.00	3.00



C703: Pharmacy Practice (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C703.1	H	-	-	-	H	H	H	H	H	H	H
C703.2	H	-	-	L	H	H	H	H	H	H	H
C703.3	H	H	M	M	H	H	H	H	H	H	H
C703.4	H	-	M	M	H	H	H	H	H	H	H
C703.5	H	H	H	H	H	H	H	H	H	H	H
C703.6	H	-	-	-	-	H	H	H	H	H	H
Avg.	3.00	3.00	2.33	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

C704: Novel Drug Delivery System (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C704.1	H	H	M	H	L	H	H	H	H	M	H
C704.2	H	H	H	H	L	M	H	M	H	M	M
C704.3	H	H	H	M	-	M	H	M	H	M	M
C704.4	H	H	M	H	-	M	M	M	H	M	M
C704.5	H	H	M	H	-	M	M	M	H	M	M
C704.6	H	M	M	H	-	M	M	M	H	M	H
Avg.	3.00	2.83	2.33	2.83	1.00	2.16	2.50	2.16	3.00	2.00	2.33

C705: Instrumental Methods of Analysis (PR)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C705.1	H	M	H	L	-	L	-	-	M	L	M
C705.2	H	L	M	L	-	M	L	-	-	M	L
C705.3	H	L	-	L	-	-	M	-	M	L	L
C705.4	H	M	M	L	-	L	-	-	-	L	L
C705.5	H	M	L	M	-	M	L	-	L	L	M
C705.6	H	L	H	L	-	-	-	-	-	M	L
Avg.	3.00	1.50	2.20	1.16	-	1.50	1.33	-	1.66	1.33	1.33

C706: Practice School

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C706.1	H	-	-	-	H	H	H	H	H	H	H
C706.2	H	-	-	L	H	H	H	H	H	H	H
C706.3	H	H	M	M	H	H	H	H	H	H	H
C706.4	H	-	M	M	H	H	H	H	H	H	H
C706.5	H	H	H	H	H	H	H	H	H	H	H
C706.6	H	-	-	-	-	H	H	H	H	H	H
Avg.	3.00	3.00	2.33	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00



B. PHARM. SEM.-VIII**C801: Biostatistics and Research Methodology (TH)**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C801.1	H	M	M	H	-	M	M	L	M	L	H
C801.2	H	H	H	H	-	M	M	M	M	L	H
C801.3	H	H	H	H	L	H	H	M	M	M	H
C801.4	H	H	H	H	L	M	L	L	M	L	H
C801.5	H	H	H	H	L	M	L	L	M	L	H
C801.6	H	H	H	H	L	L	L	M	M	L	H
Avg.	3.00	2.83	2.83	3.00	1.00	2.00	1.66	1.50	2.00	1.16	3.00

C802: Social and Preventive Pharmacy (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C802.1	H	M	M	H	M	M	H	H	H	H	H
C802.2	H	L	H	M	L	H	L	H	H	L	H
C802.3	H	H	H	H	L	M	L	H	H	L	H
C802.4	M	M	M	H	M	H	M	H	H	M	H
C802.5	H	M	H	H	M	H	M	H	M	M	M
C802.6	H	M	H	M	M	M	M	H	H	M	M
Avg.	2.83	2.00	2.66	2.66	1.66	2.50	1.83	3.00	2.83	1.83	2.66

C803: Pharma Marketing Management (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C803.1	H	H	H	L	H	H	M	H	M	M	M
C803.2	H	H	H	H	H	M	H	H	H	M	M
C803.3	H	H	H	H	M	L	M	L	L	M	M
C803.4	H	M	M	L	H	M	H	M	H	M	M
C803.5	H	H	M	L	H	M	H	H	M	M	M
C803.6	M	M	M	L	M	H	L	M	M	L	M
Avg.	2.83	2.66	2.50	1.66	2.66	2.16	2.33	2.33	2.16	1.83	2.00

C804: Pharmaceutical Regulatory Science (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C804.1	H	H	H	M	H	H	H	H	H	M	H
C804.2	H	H	H	M	H	H	H	H	H	M	H
C804.3	H	H	H	M	H	H	H	H	M	M	H
C804.4	H	H	H	H	H	H	H	H	H	M	H
C804.5	H	H	H	H	H	H	H	H	H	M	H
C804.6	H	H	H	H	H	H	H	H	H	M	H
Avg.	3.00	3.00	3.00	2.50	3.00	3.00	3.00	3.00	2.83	2.00	3.00



C805: Pharmacovigilance (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C805.1	H	-	-	-	H	H	H	H	H	H	H
C805.2	H	-	-	L	H	H	H	H	H	H	H
C805.3	H	H	M	M	H	H	H	H	H	H	H
C805.4	H	-	M	M	H	H	H	H	H	H	H
C805.5	H	H	H	H	H	H	H	H	H	H	H
C805.6	H	-	-	-	-	H	H	H	H	H	H
Avg.	3.00	3.00	2.33	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

C806: Quality Control and Standardization of Herbals (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C806.1	H	H	H	H	H	H	H	H	H	H	H
C806.2	H	H	H	H	H	H	H	M	M	H	H
C806.3	H	H	H	H	H	H	H	H	H	H	H
C806.4	H	H	H	H	M	H	H	M	M	H	H
C806.5	H	H	H	H	M	H	H	H	H	H	H
C806.6	H	H	H	H	M	H	H	M	H	H	H
Avg.	3.00	3.00	3.00	3.00	2.50	3.00	3.00	2.50	2.66	3.00	3.00

C807: Pharmacological Screening Methods (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C810.1	H	M	M	M	-	H	-	L	H	M	L
C810.2	H	L	L	M	-	H	-	L	H	L	M
C810.3	H	L	L	H	-	H	L	L	M	L	M
C810.4	H	M	L	L	-	H	-	M	H	M	H
C810.5	H	L	M	M	L	M	-	L	H	L	M
C810.6	H	L	H	L	-	H	-	M	M	M	M
Avg.	3.00	1.33	1.66	1.83	1.00	2.83	1.00	1.33	2.66	1.50	2.00

C808: Advanced Instrumentation Techniques (TH)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C808.1	H	M	H	H	H	H	H	M	H	L	H
C808.2	H	H	H	H	H	H	H	M	H	L	H
C808.3	H	H	H	H	H	H	H	M	H	H	H
C808.4	H	H	H	H	M	H	H	M	H	H	H
C808.5	H	H	H	H	M	H	H	M	H	H	H
C808.6	H	H	H	H	M	H	H	M	H	H	H
Avg.	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00



C809: Project Work

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C813.1	H	M	H	H	H	H	H	M	H	L	H
C813.2	H	H	H	H	H	H	H	M	H	L	H
C813.3	H	H	H	H	H	H	H	M	H	H	H
C813.4	H	H	H	H	M	H	H	M	H	H	H
C813.5	H	H	H	H	M	H	H	M	H	H	H
C813.6	H	H	H	H	M	H	H	M	H	H	H
Avg.	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00



3.1.3 Course-PO matrix of courses for all four years of study (10)
Academic Year- 2019-2020

Course	Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
HAP-I TH	C101	0.75	-	-	-	-	0.25	0.25	0.70	0.70	0.75	0.41
Pharm. Analysis I TH	C102	1.87	1.62	1.24	0.99	-	0.75	0.99	-	0.99	0.99	0.99
Pceutics I TH	C103	2.83	2.66	2.66	2.5	1.8	3	1.83	2.16	2.83	3	2.83
Pharm. Inorg TH	C104	0.75	-	-	-	-	0.25	0.25	0.70	0.70	0.5	0.41
Comm. Skill TH	C105	2.83	-	1.00	2.00	-	2.00	1.00	1.50	2.50	1.20	1.33
Rem. Bio/Math TH	C106	3.00	1.00	1.00	1.00	-	1.00	1.00	2.66	2.66	1.83	1.66
HAP-I PR	C107	2.83	-	1.00	-	-	2.00	1.00	1.66	2.50	1.20	1.16
Pharm. Analysis PR	C108	3.00	2.00	2.00	1.33	-	1.50	1.33	-	1.33	1.33	1.50
Pceutics I PR	C109	3.00	3.00	3.00	3.00	2.00	3.00	1.00	2.33	3.00	2.00	3.00
Pharm. Inorg PR	C110	2.83	-	1.00	-	-	2.00	1.00	1.66	2.50	1.20	1.16
Comm. Skill PR	C111	3.00	2.20	2.60	1.33	-	1.00	1.00	-	1.00	1.66	1.50
Rem. Bio/Math PR	C112	2.83	1.00	1.00	1.00	-	1.66	1.00	1.66	2.00	1.16	1.33
HAP -II TH	C201	3.00	1.00	1.5	2.00	1.00	2.16	-	1.16	3.00	3.00	3.00
Pharm. Org. Chem TH	C202	3.00	3.00	3.00	-	-	2.00	1.00	2.00	2.33	1.80	3.00
Biochem TH	C203	0.75	0.55	0.65	0.33	-	0.25	0.25	-	0.25	0.41	0.37
Pathophysiology TH	C204	3.00	-	1.83	-	-	1.66	1.25	2.66	2.66	1.16	2.00
Comp. Application TH	C205	3.00	2.50	2.50	1.83	1.66	2.66	3.00	2.66	3.00	3.00	3.00
EVS TH	C206	3.00	1.50	2.20	1.16	-	1.50	1.33	-	1.66	1.33	1.33
HAP II PR	C207	3.00	2.5	2.50	1.83	1.33	2.66	3.00	2.66	3.00	3.00	3.00
Pharm. Org. Chem PR	C208	3.00	3.00	3.00	-	-	2.00	-	1.66	2.50	-	3.00
Biochem PR	C209	3.00	1.5	2.20	1.16	-	1.50	1.33	-	1.66	1.33	1.33
Comp. Application PR	C210	3.00	2.5	2.50	1.83	1.66	2.66	3.00	2.66	3.00	3.00	3.00



Course	Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
Pharm. Org. II TH	C301	2.25	1.87	2.25	0.99	-	0.75	0.75	-	0.75	1.24	1.24
PHYS. PHARM. I TH	C302	0.75	0.62	0.75	0.70	0.25	0.45	0.30	0.37	0.40	0.58	0.70
Pharm. Micro TH	C303	1.99	0.99	1.65	0.87	-	1.12	0.99	1.12	1.24	0.99	0.99
Pharm. Eng TH	C304	0.75	0.70	0.75	0.70	0.54	0.70	0.58	0.37	0.70	0.75	0.70
POC II PR	C305	3.00	3.00	3.00	1.00	1.00	1.83	1.83	1.33	2.40	1.80	3.00
PHYS. PHARM. I PR	C306	3.00	2.83	3.00	3.00	1.16	2.00	1.50	2.00	1.83	1.50	2.50
Pharm. Micro PR	C307	3.00	-	1.83	-	-	1.66	1.25	2.66	2.66	1.16	2.00
Pharm. Eng PR	C308	2.83	2.00	1.83	2.80	1.33	1.00	1.00	-	1.00	1.60	1.83
Pharm. Org. III TH	C401	3.00	1.60	1.80	2.33	1.50	2.00	1.25	1.16	1.80	2.33	2.83
Med. Chem. I TH	C402	2.66	1.00	1.25	2.16	1.00	2.16	1.00	1.16	3.00	3.00	3.00
PHYS. PHARM. II TH	C403	3.00	2.33	3.00	2.83	1.00	2.33	1.00	2.66	2.66	3.00	3.00
Pharmacology I TH	C404	2.49	-	-	0.83	-	0.83	2.49	2.49	2.49	2.49	2.49
Pharm cog & phyto I TH	C405	3.00	2.16	1.66	2.66	1.33	1.50	2.00	1.83	1.50	1.83	3.00
Med. Chem. I PR	C406	2.66	1.00	1.33	2.00	1.16	2.16	-	1.16	3.00	3.00	2.50
PHYS. PHARM. II PR	C407	3.00	2.66	3.00	3.00	1.00	2.50	1.66	3.00	2.00	1.83	3.00
Pharmacology I PR	C408	3.00	1.75	3.00	3.00	-	1.00	3.00	3.00	3.00	3.00	3.00
Pharm cog & phyto PR	C409	2.66	1.33	2.33	2.33	-	1.80	-	-	1.33	2.33	3.00
Med. Chem. II TH	C501	3.00	2.00	2.16	2.33	1.00	1.20	1.40	2.83	2.50	2.00	2.66
Ind. Pharm. I TH	C502	3.00	2.50	2.50	2.66	2.00	3.00	1.83	2.83	2.50	2.00	2.83
Pcology II TH	C503	3.00	1.00	1.66	2.50	-	2.83	1.00	1.50	2.66	1.33	2.33
Pharm cog & phyto II TH	C504	3.00	3.00	3.00	2.66	1.5	1.5	2.16	1.33	1.66	1.66	3.00
P. Juris TH	C505	3.00	1.66	1.66	2.50	1.83	2.83	2.83	1.5	3.00	1.33	2.33
Ind. Pharm. I PR	C506	2.83	2.50	2.50	2.83	2.00	2.50	2.33	3.00	2.50	2.00	2.50
Pcology II PR	C507	3.00	1.00	1.66	2.50	-	2.83	-	1.50	3.00	1.33	2.33
Pharm cog & phyto II PR	C508	2.83	2.66	2.66	2.33	1.00	1.00	1.00	1.00	1.00	1.00	3.00
Med. Chem. III TH	C601	2.50	2.16	1.66	1.33	-	1.00	1.33	-	1.33	1.33	1.33
Pcology III TH	C602	3.00	1.66	1.66	2.50	1.83	1.00	2.83	1.50	2.66	1.33	2.33
HDT TH	C603	2.16	1.33	1.33	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.83
Biopharm. TH	C604	3.00	1.25	1.83	2.00	1.00	1.66	1.25	2.50	2.66	1.16	1.50
Biopharm Biotech TH	C605	3.00	2.33	2.50	2.66	2.25	2.16	2.50	2.00	2.66	2.83	3.00
Quality Assurance TH	C606	3.00	2.50	2.33	2.33	1.80	2.16	2.33	1.83	2.33	2.00	2.50
Med. Chem. III PR	C607	3.00	2.00	2.00	1.33	-	1.50	1.33	-	1.33	1.33	1.50
Pcology III PR	C608	3.00	1.66	1.66	2.50	1.83	1.00	2.16	1.50	3.00	1.33	2.33
HDT PR	C609	2.66	2.66	2.66	2.5	1.33	1.00	1.506	1.5	1.16	1.16	2.5
P ^o ceutics-V TH	C701	1.5	1.1	1.3	0.665	-	0.5	0.5	-	0.5	0.83	0.75
Med.Chem-III TH	C702	3.00	3.00	3.00	2.66	2.66	3.00	3.00	3.00	2.00	3.00	3.00



P'Cology-III TH	C703	2.25	2.25	1.74	1.5	2.25	2.25	2.25	2.25	2.25	2.25	2.25
P'Cognosy-V TH	C704	2.25	2.12	1.74	2.12	0.75	1.62	1.875	1.62	2.25	1.5	1.74
P'ceutical Analysis TH	C705	3.00	1.50	2.20	1.16	-	1.50	1.33	-	1.66	1.33	1.33
P'ceutical Juris. TH	C706	0.75	0.75	0.58	0.5	0.87	0.75	0.75	0.75	0.75	0.75	0.75
Seminar TH	C707	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00
P'ceutics-V PR	C708	3.00	3.00	2.33	2.00	3.50	3.00	3.00	3.00	3.00	3.00	3.00
Med.Chem-III PR	C709	3.00	3.00	2.33	2.00	3.50	3.00	3.00	3.00	3.00	3.00	3.00
P'Cology-III PR	C710	3.00	3.00	2.33	2.00	3.50	3.00	3.00	3.00	3.00	3.00	3.00
P'Cognosy-V PR	C711	3.00	3.00	2.33	2.00	3.50	3.00	3.00	3.00	3.00	3.00	3.00
P'ceutical AnalysisPR	C712	3.00	3.00	2.33	2.00	3.50	3.00	3.00	3.00	3.00	3.00	3.00
P'ceutics-VI TH	C801	3.00	2.83	2.83	3.00	1.00	2.00	1.66	1.50	2.00	1.16	3.00
Med.Chem-IV TH	C802	2.83	2.00	2.66	2.66	1.66	2.50	1.83	3.00	2.83	1.83	2.66
P'ceutical Analysis-IV TH	C803	2.83	2.66	2.66	1.66	2.66	2.16	2.33	2.33	2.16	1.83	2.00
P'Cognosy-VI TH	C804	0.75	0.25	0.5	0.62	0.25	0.75	0.75	0.75	0.70	0.5	0.75
Clinical P'therapeutics TH	C805	3.00	3.00	2.33	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Communication Skills TH	C806	3.00	3.00	3.00	3.00	2.50	3.00	3.00	2.50	2.66	3.00	3.00
P'ceutics-VI PR	C807	3.00	1.33	1.66	1.83	1.00	2.83	1.00	1.33	2.66	1.50	2.00
Med.Chem-IV PR	C808	3.00	2.83	3.00	3.00	1.00	3.00	3.00	2.00	3.00	2.33	3.00
P'ceutical Analysis-IV PR	C809	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00
P'Cognosy-VI PR	C810	2.25	2.12	2.25	2.25	1.87	2.25	2.25	1.5	2.25	1.74	2.25
Direct Assessment Average		2.65	2.03	2.07	1.96	1.70	1.87	1.71	1.94	2.13	1.81	2.19
80 % of Direct Assessment Average		2.12	1.62	1.65	1.56	1.36	1.49	1.36	1.55	1.70	1.44	1.75
20 % of Indirect Assessment		0.5	0.5	0.4	0.4	0.3	0.35	0.3	0.4	0.3	0.35	0.5
Total		2.62	2.12	2.05	1.96	1.66	1.84	1.66	1.95	2.00	1.79	2.25



Indirect assessment for Academic Year 2019-20

Tools	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
Exit survey	3	3	2	1	1	2	1	1	2	2	2
Employers survey	3	3	2	2	1	2	1	2	2	1	3
Co-curricular activity	3	2	3	3	2	2	2	3	1	2	2
Extracurricular activity	1	2	3	2	2	1	2	2	1	2	3
Indirect Assessment Average	2.5	2.50	2	2	1.5	1.75	1.5	2	1.5	1.75	2.5
20 % of Indirect Assessment	0.5	0.5	0.4	0.4	0.3	0.35	0.3	0.4	0.3	0.35	0.5



Academic Year- 2020-2021

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C101	3.00	-	-	-	-	1.00	1.00	2.83	2.83	3.00	1.66
C102	2.50	2.16	1.66	1.33	-	1.00	1.33	-	1.33	1.33	1.33
C103	2.83	2.66	2.66	2.50	1.80	3.00	1.83	2.16	2.83	3.00	2.83
C104	3.00	-	-	-	-	1.00	1.00	2.83	2.83	2.00	1.66
C105	2.83	-	1.00	2.00	-	2.00	1.00	1.50	2.50	1.20	1.33
C107	2.83	-	1.00	-	-	2.00	1.00	1.66	2.50	1.20	1.16
C108	2.25	1.50	1.50	0.99	-	1.12	0.99	-	0.99	0.99	1.12
C109	3.00	3.00	3.00	3.00	2.00	3.00	1.00	2.33	3.00	2.00	3.00
C110	2.83	-	1.00	-	-	2.00	1.00	1.66	2.50	1.20	1.16
C111	3.00	2.20	2.60	1.33	-	1.00	1.00	-	1.00	1.66	1.50
C201	3.00	1.00	1.5	2.00	1.00	2.16	-	1.16	3.00	3.00	3.00
C202	3.00	3.00	3.00	-	-	2.00	1.00	2.00	2.33	1.80	3.00
C203	3.00	2.20	2.60	1.33	-	1.00	1.00	-	1.00	1.66	1.50
C204	3.00	-	1.83	-	-	1.66	1.25	2.66	2.66	1.16	2.00
C205	3.00	2.50	2.50	1.83	1.66	2.66	3.00	2.66	3.00	3.00	3.00
C206	3.00	1.50	2.20	1.16	-	1.50	1.33	-	1.66	1.33	1.33
C207	3.00	2.5	2.50	1.83	1.33	2.66	3.00	2.66	3.00	3.00	3.00
C208	3.00	3.00	3.00	-	-	2.00	-	1.66	2.50	-	3.00
C209	3.00	1.5	2.20	1.16	-	1.50	1.33	-	1.66	1.33	1.33
C210	3.00	2.5	2.50	1.83	1.66	2.66	3.00	2.66	3.00	3.00	3.00
C301	2.25	1.87	2.25	0.99	-	0.75	0.75	-	0.75	1.24	1.12
C302	3.00	2.50	3.00	2.83	1.00	1.83	1.20	1.50	1.60	2.33	2.83
C303	2.66	1.33	2.20	1.16	-	1.50	1.33	1.50	1.66	1.33	1.33
C304	3.00	2.83	3.00	2.83	2.16	2.83	2.33	1.50	2.80	3.00	2.83
C305	3.00	3.00	3.00	1.00	1.00	1.83	1.83	1.33	2.40	1.80	3.00
C306	3.00	2.83	3.00	3.00	1.16	2.00	1.50	2.00	1.83	1.50	2.50
C307	3.00	-	1.83	-	-	1.66	1.25	2.66	2.66	1.16	2.00
C308	2.83	2.00	1.83	2.80	1.33	1.00	1.00	-	1.00	1.60	1.83
C401	3.00	1.60	1.80	2.33	1.50	2.00	1.25	1.16	1.80	2.33	2.83
C402	2.66	1.00	1.25	2.16	1.00	2.16	1.00	1.16	3.00	3.00	3.00
C403	3.00	2.33	3.00	2.83	1.00	2.33	1.00	2.66	2.66	3.00	3.00
C404	3.00	-	-	1.00	-	1.00	3.00	3.00	3.00	3.00	3.00
C405	3.00	2.16	1.66	2.66	1.33	1.50	2.00	1.83	1.50	1.83	3.00



C406	2.66	1.00	1.33	2.00	2.33	2.16	-	1.16	3.00	3.00	2.50
C407	3.00	2.66	3.00	3.00	1.00	2.50	1.66	3.00	2.00	1.83	3.00
C408	3.00	1.75	3.00	3.00	-	1.00	3.00	3.00	3.00	3.00	3.00
C409	2.66	1.33	2.33	2.33	-	1.60	1.00	-	1.33	2.33	3.00
C501	3.00	2.00	2.16	2.33	1.00	1.20	1.40	2.83	2.50	2.00	2.66
C502	3.00	2.50	2.50	2.66	2.00	3.00	1.83	2.83	2.50	2.00	2.83
C503	3.00	1.00	1.66	2.50	-	2.83	1.00	1.50	2.66	1.33	2.33
C504	3.00	3.00	3.00	2.66	1.5	1.5	2.16	1.33	1.66	1.66	3.00
C505	3.00	1.66	1.66	2.50	1.83	2.83	2.83	1.5	3.00	1.33	2.33
C506	2.83	2.50	2.50	2.83	2.00	2.50	2.33	3.00	2.50	2.00	2.50
C507	3.00	1.00	1.66	2.50	-	2.83	-	1.50	3.00	1.33	2.33
C508	2.83	2.66	2.66	2.33	1.00	1.00	1.00	1.00	1.00	1.00	3.00
C601	2.50	2.16	1.66	1.33	-	1.00	1.33	-	1.33	1.33	1.33
C602	3.00	1.66	1.66	2.50	1.83	1.00	2.83	1.50	2.66	1.33	2.33
C603	2.16	1.33	1.33	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.83
C604	3.00	1.25	1.83	2.00	1.00	1.66	1.25	2.50	2.66	1.16	1.50
C605	3.00	2.33	2.50	2.66	2.25	2.16	2.50	2.40	2.66	2.83	3.00
C606	3.00	2.50	2.33	2.33	1.80	2.16	2.33	1.83	2.33	2.00	2.50
C607	3.00	2.00	2.00	1.33	-	1.50	1.33	-	1.33	1.33	1.50
C608	3.00	1.66	1.66	2.50	1.83	1.00	2.16	1.50	3.00	1.33	2.33
C609	2.66	2.66	2.66	2.50	1.33	1.00	1.66	1.50	1.16	1.16	2.50
C701	3.00	2.20	2.60	1.33	-	1.00	1.00	-	1.00	1.66	1.50
C702	3.00	3.00	3.00	2.66	2.66	3.00	3.00	3.00	2.00	3.00	3.00
C703	3.00	3.00	2.33	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
C704	3.00	2.83	2.33	2.83	1.00	2.16	2.50	2.16	3.00	2.00	2.33
C705	3.00	1.50	2.20	1.16	-	1.50	1.33	-	1.66	1.33	1.33
C706	3.00	3.00	2.33	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
C801	3.00	2.83	2.83	3.00	1.00	2.00	1.66	1.50	2.00	1.16	3.00
C802	2.83	2.00	2.66	2.66	1.66	2.50	1.83	3.00	2.83	1.83	2.66
C803	2.83	2.66	2.50	1.66	2.66	2.16	2.33	2.33	2.16	1.83	2.00
C804	3.00	3.00	3.00	2.50	3.00	3.00	3.00	3.00	2.83	2.00	3.00
C805	3.00	3.00	2.33	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
C806	3.00	3.00	3.00	3.00	2.50	3.00	3.00	2.50	2.66	3.00	3.00
C807	3.00	1.33	1.66	1.83	1.00	2.83	1.00	1.33	2.66	1.50	2.00
C808	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00



C809	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00
Direct Assesme nt Average	2.90	2.20	2.27	2.15	1.73	1.96	1.79	2.10	2.27	1.96	2.37
Direct Assesme nt 80%	2.32	1.76	1.81	1.72	1.38	1.56	1.43	1.68	1.81	1.56	1.89
Indirect Assesme nt 20%	0.5	0.5	0.4	0.4	0.3	0.35	0.3	0.4	0.3	0.75	0.5
Total	2.82	2.26	3.21	2.12	1.68	1.91	1.73	2.08	2.11	2.31	2.39



Academic Year- 2021-2022

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C101	3.00	-	-	-	-	1.00	1.00	2.83	2.83	3.00	1.66
C102	2.50	2.16	1.66	1.33	-	1.00	1.33	-	1.33	1.33	1.33
C103	2.83	2.66	2.66	2.50	1.80	3.00	1.83	2.16	2.83	3.00	2.83
C104	3.00	-	-	-	-	1.00	1.00	2.83	2.83	2.00	1.66
C105	2.83	-	1.00	2.00	-	2.00	1.00	1.50	2.50	1.20	1.33
C106	3.00	1.00	1.00	1.00	-	1.00	1.00	2.66	2.66	1.83	1.66
C107	2.83	-	1.00	-	-	2.00	1.00	1.66	2.50	1.20	1.16
C108	3.00	2.00	2.00	1.33	-	1.50	1.33	-	1.33	1.33	1.50
C109	3.00	3.00	3.00	3.00	2.00	3.00	1.00	2.33	3.00	2.00	3.00
C110	2.83	-	1.00	-	-	2.00	1.00	1.66	2.50	1.20	1.16
C111	3.00	2.20	2.60	1.33	-	1.00	1.00	-	1.00	1.66	1.50
C112	2.83	1.00	1.00	1.00	-	1.66	1.00	1.66	2.00	1.16	1.33
C201	3.00	1.00	1.5	2.00	1.00	2.16	-	1.16	3.00	3.00	3.00
C202	0.75	0.75	0.75	-	-	0.50	0.25	0.50	0.58	0.45	0.75
C203	3.00	2.20	2.60	1.33	-	1.00	1.00	-	1.00	1.66	1.50
C204	2.25	-	1.37	-	-	1.24	0.93	1.99	1.99	0.87	1.50
C205	3.00	2.50	2.50	1.83	1.66	2.66	3.00	2.66	3.00	3.00	3.00
C206	3.00	1.50	2.20	1.16	-	1.50	1.33	-	1.66	1.33	1.33
C207	3.00	2.5	2.50	1.83	1.33	2.66	3.00	2.66	3.00	3.00	3.00
C208	3.00	3.00	3.00	-	-	2.00	-	1.66	2.50	-	3.00
C209	3.00	1.5	2.20	1.16	-	1.50	1.33	-	1.66	1.33	1.33
C210	3.00	2.5	2.50	1.83	1.66	2.66	3.00	2.66	3.00	3.00	3.00
C301	3.00	2.50	3.00	1.33	-	1.00	1.00	-	1.00	1.66	1.50
C302	3.00	2.50	3.00	2.83	1.00	1.83	1.20	1.50	1.60	2.33	2.83
C303	2.66	1.33	2.20	1.16	-	1.50	1.33	1.50	1.66	1.33	1.33
C304	3.00	2.83	3.00	2.83	2.16	2.83	2.33	1.50	2.80	3.00	2.83
C305	3.00	3.00	3.00	1.00	1.00	1.83	1.83	1.33	2.40	1.80	3.00
C306	3.00	2.83	3.00	3.00	1.16	2.00	1.50	2.00	1.83	1.50	2.50
C307	3.00	-	1.83	-	-	1.66	1.25	2.66	2.66	1.16	2.00
C308	2.83	2.00	1.83	2.80	1.33	1.00	1.00	-	1.00	1.60	1.83
C401	3.00	1.60	1.80	2.33	1.50	2.00	1.25	1.16	1.80	2.33	2.83



SUPPLEMENTARY NBA SAR (B.Pharm) 2021-22

C402	1.99	0.75	0.93	1.62	0.75	1.62	0.75	0.87	2.25	2.25	2.25
C403	1.50	1.16	1.50	1.41	0.50	1.16	0.50	1.33	1.33	1.50	1.50
C404	0.75	-	-	0.25	-	0.25	0.75	0.75	0.75	0.75	0.75
C405	1.50	1.08	0.83	1.33	0.66	0.75	1.00	0.91	0.75	0.91	1.50
C406	2.66	1.00	1.33	2.00	2.33	2.16	-	1.16	3.00	3.00	2.50
C407	3.00	2.66	3.00	3.00	1.00	2.50	1.66	3.00	2.00	1.83	3.00
C408	3.00	1.75	3.00	3.00	-	1.00	3.00	3.00	3.00	3.00	3.00
C409	2.66	1.33	2.33	2.33	-	1.60	1.00	-	1.33	2.33	3.00
C501	3.00	2.00	2.16	2.33	1.00	1.20	1.40	2.83	2.50	2.00	2.66
C502	3.00	2.50	2.50	2.66	2.00	3.00	1.83	2.83	2.50	2.00	2.83
C503	3.00	1.00	1.66	2.50	-	2.83	1.00	1.50	2.66	1.33	2.33
C504	3.00	3.00	3.00	2.66	1.5	1.5	2.16	1.33	1.66	1.66	3.00
C505	3.00	1.66	1.66	2.50	1.83	2.83	2.83	1.5	3.00	1.33	2.33
C506	2.83	2.50	2.50	2.83	2.00	2.50	2.33	3.00	2.50	2.00	2.50
C507	3.00	1.00	1.66	2.50	-	2.83	-	1.50	3.00	1.33	2.33
C508	2.83	2.66	2.66	2.33	1.00	1.00	1.00	1.00	1.00	1.00	3.00
C601	2.50	2.16	1.66	1.33	-	1.00	1.33	-	1.33	1.33	1.33
C602	3.00	1.66	1.66	2.50	1.83	1.00	2.83	1.50	2.66	1.33	2.33
C603	1.62	0.99	0.99	0.75	0.99	0.99	0.99	0.75	0.75	0.75	1.37
C604	3.00	1.25	1.83	2.00	1.00	1.66	1.25	2.50	2.66	1.16	1.50
C605	3.00	2.33	2.50	2.66	2.25	2.16	2.50	2.40	2.66	2.83	3.00
C606	3.00	2.50	2.33	2.33	1.80	2.16	2.33	1.83	2.33	2.00	2.50
C607	3.00	2.00	2.00	1.33	-	1.50	1.33	-	1.33	1.33	1.50
C608	3.00	1.66	1.66	2.50	1.83	1.00	2.16	1.50	3.00	1.33	2.33
C609	2.66	2.66	2.66	2.50	1.33	1.00	1.66	1.50	1.16	1.16	2.50
C701	3.00	2.20	2.60	1.33	-	1.00	1.00	-	1.00	1.66	1.50
C702	3.00	3.00	3.00	2.66	2.66	3.00	3.00	3.00	2.00	3.00	3.00
C703	3.00	3.00	2.33	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
C704	3.00	2.83	2.33	2.83	1.00	2.16	2.50	2.16	3.00	2.00	2.33
C705	3.00	1.50	2.20	1.16	-	1.50	1.33	-	1.66	1.33	1.33
C706	3.00	3.00	2.33	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
C801	1.50	1.41	1.41	1.50	0.5	1.00	0.83	0.75	1.00	0.58	1.50
C802	2.83	2.00	2.66	2.66	1.66	2.50	1.83	3.00	2.83	1.83	2.66
C803	2.83	2.66	2.50	1.66	2.66	2.16	2.33	2.33	2.16	1.83	2.00
C804	3.00	3.00	3.00	2.50	3.00	3.00	3.00	3.00	2.83	2.00	3.00



C805	3.00	3.00	2.33	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
C806	3.00	3.00	3.00	3.00	2.50	3.00	3.00	2.50	2.66	3.00	3.00
C807	3.00	1.33	1.66	1.83	1.00	2.83	1.00	1.33	2.66	1.50	2.00
C808	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00
C809	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00
Direct Assessment Average	2.77	2.08	2.15	2.03	1.68	1.86	1.68	1.96	2.16	1.84	2.20
Direct Assessment 80%	2.21	1.66	1.72	1.62	1.34	1.48	1.34	1.56	1.72	1.47	1.76
Indirect assessment 20%	0.50	0.50	0.40	0.40	0.30	0.35	0.30	0.40	0.30	0.35	0.50
Total	2.71	2.16	2.12	2.02	1.64	1.83	1.64	1.96	2.02	1.82	2.26



3.2 Attainment of Course Outcomes (40)

3.2.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based (10)

(Examples of data collection processes may include, but are not limited to, specific exam/tutorial questions, assignments, laboratory tests, project evaluation, student portfolios (A portfolio is a collection of artifacts that demonstrate skills, personal characteristics, and accomplishments created by the student during study period), internally developed assessment exams, project presentations, oral exams, focus groups etc. It is expected that each theory subject taught should impart specific knowledge and make a foundation for a set of Basic Concepts related to it. Similarly the laboratory experiments should have some predetermined and predefined skills which can be developed during the study)

Weightage distribution and Justification

The assessment process for the evaluation of course outcomes is divided into two parts.

- 1) Internal Assessment
- 2) University Exam Assessment

The total weightage of each subject is 100 marks as pre university curriculum for theory subjects and 50 marks for practical subjects; out of which 25 marks are contributed by sessional examination and 75 marks are from end semester examination, for theory subjects and 15 marks for internal assessment and 35 marks for university assessments in practicals. According to marks distribution system by university 75% weightage is given to the scores obtain by the students in the end semester examination and 25% weightage is given to the marks scored by the students in the internal (semester) examination.

Internal Assessment: The course outcomes are assessed by the performance of students in the internal exams. The internal exams are divided into two periodic tests. The questions are planned in such a way that they cover all the course outcomes (Three course outcomes per test). This comprises of 20% of direct assessment as per NBA specifications.

End Semester Examination: It is an important tool for assessment of course outcomes. This examination consists of objective/MCQ, Short answer questions and long answer type questions and is conducted by the University. **As the University does not provide average or median marks, we have set University pass percentage (50% as the target level for theory courses and 50% marks as the target level for practical courses.**

1. If 50% of students have obtained marks above target then the level is considered as low level (1).
2. If 60% of students have obtained marks above target then the level is considered as medium level (2).



3. If 70% of students have obtained marks above target then the level is considered as high level (3).

3.2.2 Record the attainment of Course Outcomes of all courses with respect to set attainment levels (30)

Program shall have set Course Outcome attainment levels for all courses. (The attainment levels shall be set considering average performance levels in the university examination or any higher value set as target for the assessment years. Attainment level is to be measured in terms of student performance in internal assessments with respect the course outcomes of a course in addition to the performance in the University examination)

Measuring Course Outcomes attained through University Examinations

Target may be stated in terms of percentage of students getting more than the university average marks or more as selected by the Program in the final examination. For cases where the university does not provide useful indicators like average or median marks etc., the program may choose an attainment level on its own with justification.

Example related to attainment levels Vs. targets: (The examples indicated are for reference only. Program may appropriately define levels)

Attainment Level 1: 60% students scoring more than University average percentage marks or set attainment level in the final examination is considered to be attainment of "1"

Attainment Level 2: 70% students scoring more than University average percentage marks or set attainment level in the final examination is considered to be attainment of "2"

Attainment Level 3: 80% students scoring more than University average percentage marks or set attainment level in the final examination is considered to be attainment of "3" Attainment is measured in terms of actual percentage of students getting set percentage of marks.

If targets are achieved then all the course outcomes are attained for that year. Program is expected to set higher targets for the following years as a part of continuous improvement. If targets are not achieved the program should put in place an action plan to attain the target in subsequent years.

Measuring CO attainment through Internal Assessments: (The examples indicated are for reference only. Program may appropriately define levels)

Target may be stated in terms of percentage of students getting more than class average marks or set by the program in each of the associated COs in the assessment instruments (midterm tests, assignments, mini projects, reports and presentations etc. as mapped with the COs)



Example

Mid-term test 1 addresses C202.1 and C202.2. Out of the maximum 20 marks for this test 12 marks are associated with C202.1 and 8 marks are associated with C202.2. Examples related to attainment levels Vs. targets:

Attainment Level 1: **60%** students scoring more than 60% marks out of the relevant maximum marks is considered to be attainment of “1”

Attainment Level 2: **70%** students scoring more than 60% marks out of the relevant maximum marks is considered to be attainment of “2”

Attainment Level 3: **80%** students scoring more than 60% marks out of the relevant maximum marks is considered to be attainment of “3” Attainment is measured in terms of actual percentage of students getting set percentage of marks. If targets are achieved then the C202.1 and C202.2 are attained for that year. Program is expected to set higher targets for the following years as a part of continuous improvement.

If targets are not achieved the program should put in place an action plan to attain the target in subsequent years.

Similar targets and achievement are to be stated for the other mid term tests/internal assessment instruments

Course Outcome Attainment:

Table 3.2
CO attainment for Academic Year 2019-20

Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Average	Attainment Level	Attainment %
Human Anatomy and Physiology-I TH	C101	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	25%
		University	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Pharmaceutical analysis- I TH	C102	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25	75%
		University	50	1.5	1.5	1.5	1.5	1.5	1.5	1.5		
Pharmaceutics-I TH	C103	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma. Inorganic chemistry TH	C104	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	25%
		University	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Communication skills TH	C105	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Remedial Maths.-TH	C106	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Remedial Bio-TH	C106	Internal	50	-	-	-	-	-	-	-	-	
		University	50	-	-	-	-	-	-	-		



Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Average	Attainment Level	Attainment %
Human Anatomy and Physiology-I PR	C107	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutical analysis- I PR	C108	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutics-I PR	C109	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma Inorganic chemistry PR	C110	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Communication skills PR	C111	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Rem. bio PR	C112	Internal	50	-	-	-	-	-	-	-	-	
		University	50	-	-	-	-	-	-	-		

Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Average	Attainment Level	Attainment %
HAP -II TH	C201	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma. organic chemistry-I TH	C202	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Biochemistry TH	C203	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	25%
		University	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Pathophysio TH	C204	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Computer TH	C205	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
EVS TH	C206	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		



Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Avg	Attainment Level	Attainment %
HAP-II PR	C207	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma. organic chemistry-I PR	C208	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Biochemistry PR	C209	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Computer PR	C210	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Avg	Attainment Level	Attainment %
Pharma.organic chemistry-II TH	C301	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25	75%
		University	50	1.50	1.50	1.50	1.50	1.50	1.50	1.50		
Physical pharma. - ITH	C302	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	25%
		University	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Pharma. micro TH	C303	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25	75%
		University	50	1.5	1.5	1.5	1.5	1.5	1.5	1.5		
Pharmaceutical engineering TH	C304	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	25%
		University	50	00	00	00	00	00	00	00		

Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Avg	Attainment Level	Attainment %
Pharmaceutical Organic chemistry-II PR	C305	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Phy. pharma-I PR	C306	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharm. micro PR	C307	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutical engineering PR	C308	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		



Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Avg	Attainment Level	Attainment %
Pharma.Organic chem..-III TH	C401	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Medicinal chemistry-I TH	C402	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Phy. ceutics-II TH	C403	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacol-I TH	C404	Internal	50	0.25	0.25	0.25	0.50	0.50	0.50	0.50	2.50	83%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
P'cognosy and phyto-I TH	C405	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Avg	Attainment Level	Attainment %
Medicinal chemistry-I PR	C406	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Phy pharma-II PR	C407	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacology-I PR	C408	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
P'cognosy and phyto-I PR	C409	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		



Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Avg	Attainment Level	Attainment %
Medicinal chemistry-II TH	C501	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Industrial pharmacy-I TH	C502	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacology-II TH	C503	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
P'cognosy and phyto-II TH	C504	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutical jurisprudence TH	C505	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Avg	Attainment Level	Attainment %
Industrial pharmacy-I PR	C506	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacology-II PR	C507	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
P'cognosy and phyto-II TH	C508	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		



Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Avg	Attainment Level	Attainment %
Medicinal chemistry-III TH	C601	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacology-III TH	C602	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Herbal drug technology TH	C603	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Biopharm and pcokinetics TH	C604	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma biotech TH	C605	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Quality assurance TH	C606	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Avg	Attainment Level	Attainment %
Medicinal chemistry-III PR	C607	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacology-III PR	C608	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Herbal drug technology PR	C609	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		



Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Avg	Attainment Level	Attainment %
Pharmaceutics-V TH	C701	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.50	50%
		University	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75		
Medicinal Chemistry-III TH	C702	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacology-III TH	C703	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25	75%
		University	50	1.5	1.5	1.5	1.5	1.5	1.5	1.5		
Pharmacognosy-VTH	C 704	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25	75%
		University	50	1.5	1.5	1.5	1.5	1.5	1.5	1.5		
Pharmaceutical Analysis-III TH	C705	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Pharmaceutical Jurisprudence TH	C706	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	25%
		University	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Avg	Attainment Level	Attainment %
Seminar	C707	Internal	50	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	100%
		University										
Pharmaceutics-V PR.	C708	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Medicinal Chemistry-III PR	C710	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacology-III PR	C709	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacognosy-V PR	C710	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutical Analysis-III PR.	C711	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		



Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Avg	Attainment Level	Attainment %
Pharmaceutics-VI TH	C801	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Medicinal Chemistry TH	C802	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutical Analysis TH	C803	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacognosy-VI TH	C804	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	25%
		University	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Clinical Pharmacotherapeutics TH	C805	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Communication Skills	C806	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Avg	Attainment Level	Attainment %
Pharmaceutics-VI PR	C807	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Medicinal Chemistry-IV PR	C808	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutical Analysis-IV PR	C809	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacognosy-VI PR	C810	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25	75%
		University	50	1.5	1.5	1.5	1.5	1.5	1.5	1.5		



3.1.3 Course-PO matrix of courses for all four years of study (10)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C101	3.00	0	0	0	0	0.75	0.75	2.83	2.83	2	1.506
C102	2.5	2.16	1.506	1.33	00	0.756	0.756	00	0.756	1.33	1.33
C103	2.83	2.66	2.66	2.5	1.5	3.00	1.83	2.16	2.83	2.00	2.83
C104	3.00	0.00	0.00	0.00	0.00	0.756	0.756	2.83	2.83	2.00	1.506
C105	2.83	0.00	0.50	0.33	0.00	1.33	0.50	1.50	1.506	1.00	1.506
C106	3.00	0.30	0.30	0.75	0.00	1.50	1.20	2.70	2.30	1.90	1.80
C107	3.00	0.00	0.33	0.00	0.00	1.33	0.50	1.506	1.506	1.00	1.16
C108	3.00	1.506	1.50	1.33	0.00	1	0.756	0	0.756	1.50	1.50
C109	3.00	3.00	3.00	3.00	2.00	3.00	1.00	2.33	3.00	2.00	3.00
C110	2.83	0.00	0.33	0.00	0.00	1.33	0.50	1.506	1.506	1.00	1.16
C111	3.00	1.83	2.16	1.33	0.00	0.756	0.50	0.00	0.50	1.506	1.50
C112	3.00	0.30	0.30	0.75	0.00	1.80	1.00	2.70	2.30	1.50	1.80
C201	3.00	1.00	0.5	2.00	0.166	2.16	0.00	1.16	3.00	3.00	3.00
C202	3.00	1.00	2.50	0.00	0.00	2.00	0.16	0.756	2.33	1.50	3.00
C203	3.00	2.00	1.506	1.33	0.00	0.756	0.5	0.00	0.5	1.506	1.5
C204	3.00	0.00	1.83	0.00	0.00	1.506	0.753	2.66s	2.66	1.16	2.00
C205	3.00	2.5	0.753	1.83	0.753	1.33	0.5	1.33	3.00	3.00	3.00
C206	3.00	1.50	1.83	1.16	0.00	1.00	0.756	0.00	0.753	1.33	1.33
C207	3.00	2.5	0.753	1.83	0.753	1.33	0.5	1.33	3.00	3.00	3.00
C208	3.00	1.00	3.00	0.00	0.00	1.00	0.00	1.506	1.506	0.00	3.00
C209	3.00	1.5	1.7	1.3	0.00	1	0.756	0.00	0.75	0.756	0.756
C210	3.00	2.5	0.753	1.83	0.753	1.33	0.5	1.33	3.00	3.00	3.00
C301	3.00	1.506	3.00	1.33	0	0.75	0.5	0	0.5	1.506	1.50
C302	3.00	2.50	3.00	2.83	0.753	1.83	1.00	1.50	1.33	2.33	2.83
C303	2.66	1.5	1.88	1.17	0.00	1.00	0.757	0.50	0.757	1.34	1.34
C304	3.00	2.83	3.00	2.83	2.16	2.83	2.33	0.50	2.33	2.00	2.83
C305	3.00	3.00	3.00	0.50	0.50	1.83	1.83	0.756	2.00	1.50	3.00
C306	3.00	2.83	3.00	3.00	1.16	2.00	1.00	2.00	1.83	1.50	2.50
C307	3.00	0.00	1.50	0.00	0.00	1.506	0.753	2.66	1.506	1.16	2.00
C308	2.50	1.00	1.83	2.33	0.33	0.33	0.50	0.00	0.33	1.33	1.50
C401	3.00	1.33	1.50	2.33	0.50	1.00	0.753	1.16	1.50	2.33	2.83
C402	2.66	1.00	0.753	2.16	0.33	2.16	0.50	1.16	3.00	3.00	3.00
C403	3.00	2.33	3.00	2.83	0.753	2.33	1.00	2.66	2.66	3.00	3.00
C404	3.00	0.0	0.0	1.00	0.0	1.00	3.00	3.00	3.00	3.00	3.00
C405	3.00	2.16	1.83	2.66	1.33	1.5	2.00	1.83	1.5	1.83	3.00
C406	3.00	2.66	3.00	3.00	1.00	2.50	1.506	3.00	2.00	1.50	3.00
C407	3.00	2.66	3.00	3.00	1.00	2.50	1.506	3.00	2.00	1.50	3.00
C408	3.00	1.16	2.50	3.00	0.00	1.00	3.00	3.00	3.00	3.00	3.00
C409	2.33	0.756	2.33	2.33	0.00	2.33	0.16	0.00	2.33	2.33	3.00
C501	3.00	0.756	2.16	2.33	0.5	1.00	1.16	2.83	2.50	2.00	2.66
C502	3.00	1.50	2.50	2.66	1.506	3.00	1.83	2.83	2.50	2.00	2.83



C503	3.00	1.00	2.10	2.25	0.00	2.90	1.00	1.20	2.70	1.50	2.20
C504	3.00	3.00	3.00	2.66	1.5	1.5	2.16	1.33	1.506	1.506	3.00
C505	3.00	1.507	1.507	2.50	1.84	2.84	2.84	1.50	3.00	1.34	2.34
C506	2.83	2.50	2.50	2.83	2.00	2.50	2.33	3.00	2.50	2.00	2.50
C507	3.00	1.10	1.83	1.90	0.50	2.90	0.50	1.16	1.90	1.90	2.20
C508	2.83	2.66	2.66	2.33	1.00	1.00	1.00	1.00	1.00	1.00	3.00
C601	1.5	2.16	1.83	1.33	00	0.756	0.756	00	0.756	1.33	1.33
C602	3.00	2.10	1.83	2.70	2.00	0.90	2.70	1.30	2.70	1.50	2.20
C603	2.16	1.33	1.33	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.83
C604	3.00	0.753	1.83	0.33	0.16	1.506	0.753	2.50	2.66	1.16	1.50
C605	3.00	2.33	2.50	2.66	1.50	2.16	2.50	2.00	2.66	2.83	3.00
C606	3.00	2.50	2.33	2.33	1.50	2.16	2.33	1.83	2.33	2.00	2.50
C607	3.00	1.506	1.33	1.506	0	1.33	0.756	00	0.756	1.33	1.50
C608	3.00	1.10	1.83	1.90	0.50	1.00	.50	1.16	1.90	1.90	2.20
C609	2.66	2.66	2.66	2.5	1.33	1.00	1.506	1.5	1.16	1.16	2.5
C701	3.00	1.83	2.16	2.00	0.00	0.756	0.50	0.00	0.50	1.506	2.50
C702	3.00	3.00	3.00	2.66	2.66	3.00	3.00	3.00	2.00	3.00	3.00
C703	3.00	1.00	0.756	0.753	2.50	3.00	3.00	3.00	3.00	3.00	3.00
C704	3.00	2.83	2.33	2.83	0.33	2.16	2.50	2.16	3.00	2.00	2.33
C705	3.00	1.50	1.50	1.3	0	1	0.75	0	0.9	1.2	1.506
C706	3.00	1.00	0.756	0.753	2.50	3.00	3.00	3.00	3.00	3.00	3.00
C801	3.00	2.83	2.83	3.00	0.756	2.00	1.506	1.5	2.00	1.16	3.00
C802	2.83	2.00	2.66	2.66	1.506	2.00	1.83	3.00	2.83	1.83	2.66
C803	2.83	2.66	2.66	1.506	2.66	2.16	2.33	2.33	2.16	1.83	3.00
C804	3.00	3.00	3.00	2.50	3.00	3.00	3.00	3.00	2.83	2.00	3.00
C805	3.00	0.50	1.16	1.33	2.50	3.00	3.00	3.00	3.00	3.00	3.00
C806	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00
C807	3.00	1.10	1.83	1.90	0.50	2.90	0.50	1.16	1.90	1.90	2.20
C808	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00
C809	3.00	3.00	3.00	2.50	3.00	3.00	3.00	3.00	2.83	2.00	3.00



Table 3.1.1

CO-PO matrices of courses selected in 3.1.1 (four matrices to be mentioned; one per semester from 1st to 8th semester; at least one per year) (05)

Human Anatomy and Physiology-I C101	CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
C101.1	H	-	-	-	-	-	L	L	H	H	M	M
C101.2	H	-	-	-	-	-	L	L	H	H	M	M
C101.3	H	-	-	-	-	-	-	-	M	M	M	M
C101.4	H	-	-	-	-	-	L	L	H	H	M	L
C101.5	H	-	-	-	-	-	-	L	H	H	M	L
C101.50	H	-	-	-	-	-	L	-	H	H	M	M
Average		3	0	0	0	0	0.756	0.756	2.83	2.83	2	1.506

Note: Correlation levels 1, 2 or 3 as defined below:

1: Slight (Low)

2: Moderate (Medium)

3: Substantial (High)

Pharmaceutical Microbiology	CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C303.1	H	M	H	L	-	L	-	M	M	L	M	M
C303.2	H	L	M	L	-	M	L	-	-	M	L	L
C303.3	M	L	-	L	-	-	M	-	M	L	L	L
C303.4	H	L	M	L	-	L	-	-	-	L	L	L
C303.5	H	M	L	M	-	M	L	-	L	L	M	M
C303.6	M	L	H	L	-	-	-	L	-	M	L	L
Average		2.66	1.5	1.88	1.17	0.00	1.00	0.757	0.50	0.757	1.34	1.34

Pharmacology-II C505	CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C505.1	H	M	M	M	L	H	H	L	H	M	L	L
C505.2	H	L	L	M	L	H	H	L	H	L	M	M
C505.3	H	L	L	H	L	H	M	L	H	L	H	H
C505.4	H	L	L	H	H	H	H	H	H	M	H	H
C505.5	H	M	M	M	H	M	H	L	H	L	H	H
C505.6	H	H	H	H	M	H	H	M	H	L	M	M
Average		3.00	1.507	1.507	2.50	1.84	2.84	2.84	1.50	3.00	1.34	2.34

Medicinal Chemistry-III C702	CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C701.1	H	M	H	L	-	L	-	-	M	L	M	M
C701.2	H	L	M	L	-	M	L	-	-	M	L	L
C701.3	H	L	-	L	-	-	M	-	M	L	L	L
C701.4	H	M	M	L	-	L	-	-	-	L	L	L
C701.5	H	M	L	M	-	M	L	-	L	L	M	M
C701.50	H	L	H	L	-	-	-	-	-	M	L	L
Average		3.00	1.50	1.84	1.17	0.00	1.00	0.757	0.00	0.754	1.34	1.34



3.1.3 Course-PO matrix of courses for all four years of study (10)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C101	3	0	0	0	0	0.756	0.756	2.83	2.83	2	1.506
C102	2.5	2.16	1.506	1.33	00	0.756	0.756	00	0.756	1.33	1.33
C103	2.83	2.66	2.66	2.5	1.5	3.00	1.83	2.16	2.83	2.00	2.83
C104	3.00	0.00	0.00	0.00	0.00	0.756	0.756	2.83	2.83	2.00	1.506
C105	2.83	0.00	0.50	0.33	0.00	1.33	0.50	1.50	1.506	1.00	1.506
C106	3.00	0.30	0.30	0.75	0.00	1.50	1.20	2.70	2.30	1.90	1.80
C107	3.00	0.00	0.33	0.00	0.00	1.33	0.50	1.506	1.506	1.00	1.16
C108	3.00	1.506	1.50	1.33	0.00	1	0.756	0	0.756	1.50	1.50
C109	3.00	3.00	3.00	3.00	2.00	3.00	1.00	2.33	3.00	2.00	3.00
C110	2.83	0.00	0.33	0.00	0.00	1.33	0.50	1.506	1.506	1.00	1.16
C111	3.00	1.83	2.16	1.33	0.00	0.756	0.50	0.00	0.50	1.506	1.50
C112	3.00	0.30	0.30	0.75	0.00	1.80	1.00	2.70	2.30	1.50	1.80
C201	3.00	1.00	0.5	2.00	0.166	2.16	0.00	1.16	3.00	3.00	3.00
C202	3.00	1.00	2.50	0.00	0.00	2.00	0.16	0.756	2.33	1.50	3.00
C203	3.00	2.00	1.506	1.33	0.00	0.756	0.5	0.00	0.5	1.506	1.5
C204	3.00	0.00	1.83	0.00	0.00	1.506	0.753	2.66	2.66	1.16	2.00
C205	3.00	2.5	0.753	1.83	0.753	1.33	0.5	1.33	3.00	3.00	3.00
C206	3.00	1.50	1.83	1.16	0.00	1.00	0.756	0.00	0.753	1.33	1.33
C207	3.00	2.5	0.753	1.83	0.753	1.33	0.5	1.33	3.00	3.00	3.00
C208	3.00	1.00	3.00	0.00	0.00	1.00	0.00	1.506	1.506	0.00	3.00
C209	3.00	1.5	1.7	1.3	0.00	1	0.756	0.00	0.75	0.756	0.756
C210	3.00	2.5	0.753	1.83	0.753	1.33	0.5	1.33	3.00	3.00	3.00
C301	3.00	1.506	3.00	1.33	0	0.75	0.5	0	0.5	1.506	1.50
C302	3.00	2.50	3.00	2.83	0.753	1.83	1.00	1.50	1.33	2.33	2.83
C303	2.66	1.5	1.88	1.17	0.00	1.00	0.757	0.50	0.757	1.34	1.34
C304	3.00	2.83	3.00	2.83	2.16	2.83	2.33	0.50	2.33	2.00	2.83
C305	3.00	3.00	3.00	0.50	0.50	1.83	1.83	0.756	2.00	1.50	3.00
C306	3.00	2.83	3.00	3.00	1.16	2.00	1.00	2.00	1.83	1.50	2.50
C307	3.00	0.00	1.50	0.00	0.00	1.506	0.753	2.66	1.506	1.16	2.00
C308	2.50	1.00	1.83	2.33	0.33	0.33	0.50	0.00	0.33	1.33	1.50
C401	3.00	1.33	1.50	2.33	0.50	1.00	0.753	1.16	1.50	2.33	2.83
C402	2.66	1.00	0.753	2.16	0.33	2.16	0.50	1.16	3.00	3.00	3.00
C403	3.00	2.33	3.00	2.83	0.753	2.33	1.00	2.66	2.66	3.00	3.00
C404	3.00	0.0	0.0	1.00	0.0	1.00	3.00	3.00	3.00	3.00	3.00
C405	3.00	2.16	1.83	2.66	1.33	1.5	2.00	1.83	1.5	1.83	3.00
C406	3.00	2.66	3.00	3.00	1.00	2.50	1.506	3.00	2.00	1.50	3.00
C407	3.00	2.66	3.00	3.00	1.00	2.50	1.506	3.00	2.00	1.50	3.00
C408	3.00	1.16	2.50	3.00	0.00	1.00	3.00	3.00	3.00	3.00	3.00
C409	2.33	0.756	2.33	2.33	0.00	2.33	0.16	0.00	2.33	2.33	3.00
C501	3.00	0.756	2.16	2.33	0.5	1.00	1.16	2.83	2.50	2.00	2.66
C502	3.00	1.50	2.50	2.66	1.506	3.00	1.83	2.83	2.50	2.00	2.83



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C503	3.00	1.00	2.10	2.25	0.00	2.90	1.00	1.20	2.70	1.50	2.20
C504	3.00	3.00	3.00	2.66	1.5	1.5	2.16	1.33	1.506	1.506	3.00
C505	3.00	1.507	1.507	2.50	1.84	2.84	2.84	1.50	3.00	1.34	2.34
C506	2.83	2.50	2.50	2.83	2.00	2.50	2.33	3.00	2.50	2.00	2.50
C507	3.00	1.10	1.83	1.90	0.50	2.90	0.50	1.16	1.90	1.90	2.20
C508	2.83	2.66	2.66	2.33	1.00	1.00	1.00	1.00	1.00	1.00	3.00
C601	1.5	2.16	1.83	1.33	00	0.756	0.756	00	0.756	1.33	1.33
C602	3.00	2.10	1.83	2.70	2.00	0.90	2.70	1.30	2.70	1.50	2.20
C603	2.16	1.33	1.33	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.83
C604	3.00	0.753	1.83	0.33	0.16	1.506	0.753	2.50	2.66	1.16	1.50
C605	3.00	2.33	2.50	2.66	1.50	2.16	2.50	2.00	2.66	2.83	3.00
C606	3.00	2.50	2.33	2.33	1.50	2.16	2.33	1.83	2.33	2.00	2.50
C607	3.00	1.506	1.33	1.506	0	1.33	0.756	00	0.756	1.33	1.50
C608	3.00	1.10	1.83	1.90	0.50	1.00	.50	1.16	1.90	1.90	2.20
C609	2.66	2.66	2.66	2.5	1.33	1.00	1.506	1.5	1.16	1.16	2.5
C701	3.00	1.83	2.16	2.00	0.00	0.756	0.50	0.00	0.50	1.506	2.50
C702	3.00	3.00	3.00	2.66	2.66	3.00	3.00	3.00	2.00	3.00	3.00
C703	3.00	1.00	0.756	0.753	2.50	3.00	3.00	3.00	3.00	3.00	3.00
C704	3.00	2.83	2.33	2.83	0.33	2.16	2.50	2.16	3.00	2.00	2.33
C705	3.00	1.50	1.50	1.3	0	1	0.75	0	0.9	1.2	1.506
C706	3.00	1.00	0.756	0.753	2.50	3.00	3.00	3.00	3.00	3.00	3.00
C801	3.00	2.83	2.83	3.00	0.756	2.00	1.506	1.5	2.00	1.16	3.00
C802	2.83	2.00	2.66	2.66	1.506	2.00	1.83	3.00	2.83	1.83	2.66
C803	2.83	2.66	2.66	1.506	2.66	2.16	2.33	2.33	2.16	1.83	3.00
C804	3.00	3.00	3.00	2.50	3.00	3.00	3.00	3.00	2.83	2.00	3.00
C805	3.00	0.50	1.16	1.33	2.50	3.00	3.00	3.00	3.00	3.00	3.00
C806	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00
C807	3.00	1.10	1.83	1.90	0.50	2.90	0.50	1.16	1.90	1.90	2.20
C808	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00
C809	3.00	3.00	3.00	2.50	3.00	3.00	3.00	3.00	2.83	2.00	3.00



Table 3.2
CO attainment for Batch 2018-22

Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Average	Attainment Level
Human Anatomy and Physiology-I TH	C101	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
		University	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pharmaceutical analysis- I TH	C102	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
		University	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pharmaceutics-I TH	C103	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.50
		University	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	
Pharma. Inorganic chemistry TH	C104	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25
		University	50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	
Communication skills TH	C105	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Remedial maths- TH	C106	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Remedial Bio-TH	C106	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Human Anatomy and Physiology-I PR	C107	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmaceutical analysis- I PR	C108	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmaceutics-I PR	C109	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharma Inorganic chemistry PR	C110	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Communication skills PR	C111	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Rem. bio PR	C112	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	



HAP -II TH	C201	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.50
		University	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	
Pharma. organic chemistry-I TH	C202	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.50
		University	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	
Biochemistry TH	C203	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
		University	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pathophysio TH	C204	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
		University	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Computer TH	C205	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
EVS TH	C206	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
HAP-II PR	C207	Internal	50	0.50	0.50	0.50	0.00	0.00	0.00	0.25	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharma. organic chemistry-I PR	C208	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Biochemistry PR	C209	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Computer PR	C210	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharma.organic chemistry-II TH	C301	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25
		University	50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	
Physical pharma. -I TH	C302	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
		University	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pharma. micro TH	C303	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25
		University	50	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Pharmaceutical engineering TH	C304	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
		University	50	00	00	00	00	00	00	00	
Pharmaceutical Organic chemistry-II PR	C305	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Phy. pharma-I PR	C306	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharm. micro PR	C307	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmaceutical engineering PR	C308	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	



Pharma.Organic chem.-III TH	C401	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Medicinal chemistry-I TH	C402	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Phy. ceutics-II TH	C403	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmacol-I TH	C404	Internal	50	0.25	0.25	0.25	0.50	0.50	0.50	0.38	2.63
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
P'cognosy and phyto-II TH	C405	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Medicinal chemistry-I PR	C406	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Phy pharma-II PR	C407	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmacology-I PR	C408	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
P'cognosy and phyto-II TH PR	C409	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Medicinal chemistry-II TH	C501	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Industrial pharmacy-I TH	C502	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmacology-II TH	C503	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
P'cognosy and phyto-II TH	C504	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmaceutical jurisprudence TH	C505	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Industrial pharmacy-I PR	C506	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmacology-II PR	C507	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
P'cognosy and phyto-II TH	C508	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	



Medicinal chemistry-III TH	C601	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmacology-III TH	C602	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Herbal drug technology TH	C603	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Biopharm and pcokinetics TH	C604	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharma biotech TH	C605	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Quality assurance TH	C606	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Medicinal chemistry-III PR	C607	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmacology-III PR	C608	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Herbal drug technology PR	C609	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Instrumental methods of analysis TH	C701	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Industrial pharmacy-II TH	C702	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmacy practice TH	C703	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Novel drug delivery system TH	C 704	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Instrumental methods of analysis PR	C705	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Practice school PR	C706	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	



Biost TH	C801	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.50
		University	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	
SOC. & Prev. Pharm. TH	C802	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharma marketing management TH	C803	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharma regulatory science TH	C804	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
P'covigilanceTH	C805	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
QC and std of herbs TH	C806	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Experimental pharmacology TH	C807	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Advanced instrumentation techniques TH	C808	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Project work PR	C809	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	



CO attainment for Batch 2017-21

Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Average	Attainment Level
Human Anatomy and Physiology-I TH	C101	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
		University	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pharmaceutical analysis- I TH	C102	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25
		University	50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	
Pharmaceutics-I TH	C103	Internal	50	0.250	0.250	0.250	0.00	0.00	0.00	0.13	0.13
		University	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pharma. Inorganic chemistry TH	C104	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25
		University	50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	
Communication skills TH	C105	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Remedial bio/math-TH	C106	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
		University	50	00	00	00	00	00	00	00	
Human Anatomy and Physiology-I PR	C107	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmaceutical analysis- I PR	C108	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmaceutics-I PR	C109	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharma Inorganic chemistry PR	C110	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Communication skills PR	C111	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	



HAP -II TH	C201	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.50
		University	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	
Pharma. organic chemistry-I TH	C202	Internal	50	0.50	0.50	0.50	0.75	0.75	0.75	0.63	1.38
		University	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	
Biochemistry TH	C203	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
		University	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pathophysio TH	C204	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
		University	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Computer TH	C205	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
EVS TH	C206	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
HAP-II PR	C207	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.50
		University	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	
Pharma. organic chemistry-I PR	C208	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Biochemistry PR	C209	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Computer PR	C210	Internal	50	0.25	0.250	0.25	0.50	0.50	0.50	0.37	2.62
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharma.organic chemistry-II TH	C301	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.50
		University	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	
Physical pharma. -I TH	C302	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.50
		University	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	
Pharma. micro TH	C303	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25
		University	50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	
Pharmaceutical engineering TH	C304	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25
		University	50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	
Pharmaceutical organicchemistry-II PR	C305	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Phy. pharma-I PR	C306	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharm. micro PR	C307	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmaceutical engineering PR	C308	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharma.Organic	C401	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75



chem..-III TH		University	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Medicinal chemistry-I TH	C402	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
		University	50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Phy. ceutics-II TH	C403	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
		University	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pharmacol-I TH	C404	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
		University	50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
P'cognosy and phyto-II TH	C405	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.25
		University	50	0.75	0.75	0.75	0.00	0.00	0.00	0.50	
Medicinal chemistry-I PR	C406	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Phy pharma-II PR	C407	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmacology-I PR	C408	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
P'cognosy and phyto-II TH PR	C409	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Medicinal chemistry-II TH	C501	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25
		University	50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	
Industrial pharmacy-I TH	C502	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25
		University	50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	
Pharmacology-II TH	C503	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
P'cognosy and phyto-II TH	C504	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25
		University	50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	
Pharmaceutical jurisprudence TH	C505	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
I P-I PR	C506	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmacology-II PR	C507	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
P'cognosy and phyto-II TH	C508	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	



Medicinal chemistry-III TH	C601	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmacology-IIITH	C602	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Herbal drug technology TH	C603	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Biopharm and peokinetics TH	C604	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharma biotech TH	C605	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Quality assurance TH	C606	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Medicinal chemistry-III PR	C607	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmacology-IIIPR	C608	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Herbal drug technology PR	C609	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Instrumental methods of analysis TH	C701	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Industrial pharmacy-II TH	C702	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharmacy practice TH	C703	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Novel drug delivery system TH	C 704	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Instrumental methods of analysis PR	C705	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Practice school PR	C706	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	



Biost TH	C801	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
SOC. & Prev. Pharm. TH	C802	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharma marketing management TH	C803	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Pharma regulatory science TH	C804	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
P'covigilanceTH	C805	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
QC and std of herbs TH	C806	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Experimental pharmacology TH	C807	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Advanced instrumentation techniques TH	C808	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Project work PR	C809	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	



Attainment of Program Outcomes (40)**Describe assessment tools and processes used for assessing the attainment of each PO (10)**

(Describe the assessment tools and processes used to gather the data upon which the evaluation of each the Program Outcome is based indicating the frequency with which these processes are carried out. Describe the assessment processes that demonstrate the degree to which the Program Outcomes are attained and document the attainment levels)

Direct Attainment Tools

The various direct assessment tools for assessing the students and the PO attained are as follows:

Assessing Tool	Aim	Frequency	Program Outcome
Periodic Sessional examination	Assessing the understanding of the fundamental concepts and expression of the knowledge gained	Two per semester per Course at the Institute level.	All POs
Semester/Term End Examination	Assessing the understanding of the fundamental concepts and expression of the practical skills and knowledge gained.	One at the end of the semester at the University level.	All POs



Indirect Attainment Tools

The various indirect assessment tools for assessing the students and the PO attained are as follows:

Assessing Tool	Aim	Frequency	Program Outcome
Practice School & Student Projects	To assess the application of various pharmaceutical subject knowledge gathered to analyse a problem. It also helps in assessing the development in leadership and communication skills	At the end of B. Pharm. 7 th and 8 th semester respectively	All POs
Co-curricular Activities	It assesses the relevance of these activities in using pharmacy knowledge in promoting problem analysis, planning abilities and a life-long interest in the area. It also helps in assessing the improvement in operating modern computer tools and software as well as their leadership and communication skills	After every co-curricular activity	All POs
Extra-Curricular Activities	To assess the overall development in the personality of the students	After every extra-curricular activity	PO2, PO5, PO8 and PO9
Guest Lectures	To assess the impact of the lecture in relation to knowledge, problem solving ability, communication skills and pharmacy practice.	After every guest lecture	PO1, PO3, PO6, PO8 and PO9
Alumni Survey	To assess the effectiveness of Program for the career development of the graduates	Every year during Alumni Meet	PO1, PO5 and PO11
In-Plant Training	To assess the observation skills and ability to relate class room studies to the industrial scenario.	Once during the Program	PO1, PO4, PO6, PO7, PO8, PO9 and PO10
Industrial Visit	To assess the observation skills and ability to relate class room studies to industrial scenario.	Once during the Program	PO1, PO4, PO6, PO7, PO9 and PO10



Provide results of evaluation of each PO (30)

Program shall set Program Outcome attainment levels for all POs. (The attainment levels by direct (student performance) and indirect (surveys) are to be presented through Program level Course-PO matrix as indicated).

Direct assessment of PO from course outcomes (2018-22)

Course	Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
HAP-I TH	C101	3	0	0	0	1.5	0.756	0.756	2.83	2.83	2	1.506
Pharm. Analysis I TH	C102	2.5	2.16	1.506	1.33	1.33	0.756	0.756	00	0.756	1.33	1.33
Pceutics I TH	C103	2.83	2.66	2.66	2.5	1.5	3.00	1.83	2.16	2.83	2.00	2.83
Pharm. Inorg TH	C104	3.00	0.00	0.00	0.00	1.33	0.756	0.756	2.83	2.83	2.00	1.506
Comm. Skill TH	C105	2.83	0.00	0.50	0.33	0.75	1.33	0.50	1.50	1.506	1.00	1.33
Rem. Bio/Math TH	C106	3.00	0.30	0.30	0.75	1.16	1.50	1.20	2.70	2.30	1.90	1.80
HAP-I PR	C107	3.00	0.00	0.33	0.00	2.66	1.33	0.50	1.506	1.506	1.00	1.16
Pharm. Analysis I R	C108	3.00	1.506	1.50	1.33	2.00	1	0.756	0	0.756	1.50	1.50
Pceutics I PR	C109	3.00	3.00	3.00	3.00	2.00	3.00	1.00	2.33	3.00	2.00	3.00
Pharm. Inorg PR	C110	2.83	0.00	0.33	0.00	0.00	1.33	0.50	1.506	1.506	1.00	1.16
Comm. Skill PR	C111	3.00	1.83	2.16	1.33	0.00	0.756	0.50	0.00	0.50	1.506	1.50
Rem. Bio/Math PR	C112	3.00	0.30	0.30	0.75	0.00	1.80	1.00	2.70	2.30	1.50	1.80
HAP -II TH	C201	3.00	1.00	0.5	2.00	0.166	2.16	0.00	1.16	3.00	3.00	3.00
Pharm. Org. Chem TH	C202	3.00	1.00	2.50	0.00	0.00	2.00	0.16	0.756	2.33	1.50	3.00
Biochem TH	C203	3.00	2.00	1.506	1.33	0.00	0.756	0.5	0.00	0.5	1.506	1.5
Pathophysiology TH	C204	3.00	0.00	1.83	0.00	0.00	1.506	0.753	2.66	2.66	1.16	2.00
Comp. Application TH	C205	2.83	0.00	0.50	0.33	0.00	1.33	0.50	1.50	1.506	1.00	1.33
EVS TH	C206	3.00	1.50	1.83	1.16	0.00	1.00	0.756	0.00	0.753	1.33	1.33
HAP II PR	C207	3.00	2.5	0.753	1.83	0.753	1.33	0.5	1.33	3.00	3.00	3.00
Pharm. Org. Chem PR	C208	3.00	1.00	3.00	0.00	0.00	1.00	0.00	1.506	1.506	0.00	3.00
Biochem PR	C209	3.00	1.5	1.7	1.3	0.00	1	0.756	0.00	0.75	0.756	0.756
Comp. Application PR	C210	2.83	0.00	0.50	0.33	0.00	1.33	0.50	1.50	1.506	1.00	1.33



Course	Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
Pharm. Org. II TH	C301	3.00	1.506	3.00	1.33	0	0.75	0.5	0	0.5	1.506	1.50
PHYS. PHARM. I TH	C302	3.00	2.50	3.00	2.83	0.753	1.83	1.00	1.50	1.33	2.33	2.83
Pharm. Micro TH	C303	2.66	1.5	1.88	1.17	0.00	1.00	0.757	0.50	0.757	1.34	1.34
Pharm. Eng TH	C304	3.00	2.83	3.00	2.83	2.16	2.83	2.33	0.50	2.33	2.00	2.83
POC II PR	C305	3.00	3.00	3.00	0.50	0.50	1.83	1.83	0.756	2.00	1.50	3.00
PHYS. PHARM. I PR	C306	3.00	2.83	3.00	3.00	1.16	2.00	1.00	2.00	1.83	1.50	2.50
Pharm. Micro PR	C307	3.00	0.00	1.50	0.00	0.00	1.506	0.753	2.66	1.506	1.16	2.00
Pharm. Eng PR	C308	2.50	1.00	1.83	2.33	0.33	0.33	0.50	0.00	0.33	1.33	1.50
Pharm. Org. III TH	C401	3.00	1.33	1.50	2.33	0.50	1.00	0.753	1.16	1.50	2.33	2.83
Med. Chem. I TH	C402	2.66	1.00	0.753	2.16	0.33	2.16	0.50	1.16	3.00	3.00	3.00
PHYS. PHARM. II TH	C403	3.00	2.33	3.00	2.83	0.753	2.33	1.00	2.66	2.66	3.00	3.00
Pharmacology I TH	C404	3.00	0.0	0.0	1.00	0.0	1.00	3.00	3.00	3.00	3.00	3.00
Pharm cog & phyto I TH	C405	3.00	2.16	1.83	2.66	1.33	1.5	2.00	1.83	1.5	1.83	3.00
Med. Chem. I PR	C406	3.00	2.66	3.00	3.00	1.00	2.50	1.506	3.00	2.00	1.50	3.00
PHYS. PHARM. II PR	C407	3.00	2.66	3.00	3.00	1.00	2.50	1.506	3.00	2.00	1.50	3.00
Pharmacology I PR	C408	3.00	1.16	2.50	3.00	0.00	1.00	3.00	3.00	3.00	3.00	3.00
Pharm cog & phyto PR	C409	2.33	0.756	2.33	2.33	0.00	2.33	0.16	0.00	2.33	2.33	3.00
Med. Chem. II TH	C501	3.00	0.756	2.16	2.33	0.5	1.00	1.16	2.83	2.50	2.00	2.66
Ind. Pharm. I TH	C502	3.00	1.50	2.50	2.66	1.506	3.00	1.83	2.83	2.50	2.00	2.83
Pcology II TH	C503	3.00	1.00	2.10	2.25	0.00	2.90	1.00	1.20	2.70	1.50	2.20
Pharm cog & phyto II TH	C504	3.00	3.00	3.00	2.66	1.5	1.5	2.16	1.33	1.506	1.506	3.00
P. Juris TH	C505	3.00	1.507	1.507	2.50	1.84	2.84	2.84	1.50	3.00	1.34	2.34
Ind. Pharm. I PR	C506	2.83	2.50	2.50	2.83	2.00	2.50	2.33	3.00	2.50	2.00	2.50
Pcology II PR	C507	3.00	1.10	1.83	1.90	0.50	2.90	0.50	1.16	1.90	1.90	2.20
Pharm cog & phyto II PR	C508	2.83	2.66	2.66	2.33	1.00	1.00	1.00	1.00	1.00	1.00	3.00
Med. Chem. III TH	C601	1.5	2.16	1.83	1.33	1.50	0.756	0.756	00	0.756	1.33	1.33
Pcology III TH	C602	3.00	2.10	1.83	2.70	2.00	0.90	2.70	1.30	2.70	1.50	2.20
HDT TH	C603	2.16	1.33	1.33	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.83
Biopharm. TH	C604	3.00	0.753	1.83	0.33	1.50	1.506	0.753	2.50	2.66	1.16	1.50
Biopharm Biotech TH	C605	3.00	2.33	2.50	2.66	1.50	2.16	2.50	2.00	2.66	2.83	3.00
Quality Assurance TH	C606	3.00	2.50	2.33	2.33	1.50	2.16	2.33	1.83	2.33	2.00	2.50
Med. Chem. III PR	C607	3.00	1.506	1.33	1.506	1.50	1.33	0.756	00	0.756	1.33	1.50
Pcology III PR	C608	3.00	1.10	1.83	1.90	1.33	1.00	.50	1.16	1.90	1.90	2.20
HDT PR	C609	2.66	2.66	2.66	2.5	1.33	1.00	1.506	1.5	1.16	1.16	2.5
Inst. Method Analysis TH	C701	3.00	1.83	2.16	2.00	0.00	0.756	0.50	0.00	0.50	1.506	2.50
IP II TH	C702	3.00	3.00	3.00	2.66	2.66	3.00	3.00	3.00	2.00	3.00	3.00



Pharm. Practice TH	C703	3.00	1.00	0.756	0.753	2.50	3.00	3.00	3.00	3.00	3.00	3.00
NDDS TH	C704	3.00	2.83	2.33	2.83	0.33	2.16	2.50	2.16	3.00	2.00	2.33
Inst. Method Analysis PR	C705	3.00	1.50	1.50	1.3	1.5	1	0.75	0	0.9	1.2	1.506
Practice school	C706	3.00	3.00	3.00	2.50	3.00	3.00	3.00	3.00	2.83	2.00	3.00
Bio stast & Reasearch Method TH	C801	3.00	2.83	2.83	3.00	0.756	2.00	1.506	1.5	2.00	1.16	3.00
Social & preventive Pharm. TH	C802	2.83	2.00	2.66	2.66	1.506	2.00	1.83	3.00	2.83	1.83	2.66
Pharm. Marketing Management TH	C803	2.83	2.66	2.66	1.506	2.66	2.16	2.33	2.33	2.16	1.83	3.00
Pharm. Reg. Science TH	C804	3.00	3.00	3.00	2.50	3.00	3.00	3.00	3.00	2.83	2.00	3.00
P'vigilance TH	C805	3.00	0.50	1.16	1.33	2.50	3.00	3.00	3.00	3.00	3.00	3.00
QC & Std of herbals TH	C806	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00
Exp Pcology TH	C807	3.00	1.10	1.83	1.90	1.50	2.90	0.50	1.16	1.90	1.90	2.20
Adv. Instrumentation Tech TH	C808	3.00	2.83	3.00	3.00	2.50	3.00	3.00	2.00	3.00	2.33	3.00
Project Work	C809	3.00	3.00	3.00	2.50	3.00	3.00	3.00	3.00	2.83	2.00	3.00
Direct Assessment Average		2.9	1.63	1.92	1.76	1.08	1.77	1.35	1.62	1.98	1.77	2.33
75 % of Direct Assessment Average		2.18	1.22	1.44	1.32	0.81	1.32	1.01	1.21	1.49	1.33	1.75
25 % of Indirect Assessment		0.63	0.63	0.50	0.50	0.38	0.44	0.38	0.50	0.38	0.44	0.63
Total		2.81	1.85	1.94	1.82	1.19	1.76	1.39	1.71	1.87	1.77	2.38

Indirect assessment of PO for Batch 2018-22

Tools	PO 1	PO2	PO3	PO 4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
Exit survey	3	3	2	1	1	2	1	1	2	2	2
Employers survey	3	3	2	2	1	2	1	2	2	1	3
Co-curricularactivity	3	2	3	3	2	2	2	3	1	2	2
Extracurricular activity	1	2	3	2	2	1	2	2	1	2	3
Indirect Assessment Average	2.5	2.50	2	2	1.5	1.75	1.5	2	1.5	1.75	2.5
25 % of Indirect Assessment	0.63	0.63	0.50	0.50	0.38	0.44	0.38	0.50	0.38	0.44	0.63



C101, C102 are indicative courses in the first semester. Similarly C801 is course in eight semester of study.

C101, C102 are indicative courses in the first year. Similarly, C409 is final year course. First numeric digit indicates year of study and remaining two digits indicate course nos. in the respective year of study. Direct attainment level of a PO is determined by taking average across all courses addressing that PO. Fractional numbers may be used for example 1.55. Indirect attainment level of a PO is determined based on the student exit surveys, employer surveys, co-curricular activities, extracurricular activities etc.

Example:

1. It is assumed that a particular PO has been mapped to four courses C201, C302, C303, C401
2. The attainment level for each of the four courses will be as per the examples shown in 2.2.2
3. PO attainment level will be based on attainment levels of direct assessment and indirect assessment
4. It is assumed that while deciding on overall attainment level 80% weightage may be given to direct assessment and 20% weightage to indirect assessment through surveys from students (largely), employers (to some extent). Program may have different weightages with appropriate justification.
5. Assuming following actual attainment levels:

Direct Assessment

C201 – High (3) C302 – Medium (2) C303 – Low (1) C401 – High (3)

Attainment level will be summation of levels divided by no. of courses $3+2+1+3/4 = 9/4 = 2.25$

Indirect Assessment

Surveys, Analysis, customized to an average value as per levels 1, 2 & 3.

Assumed level - 2

PO Attainment level will be 80% of direct assessment + 20% of indirect assessment i.e. $1.8 + 0.50 = 2.2$



Table 3.2
CO attainment for AY- 2020-21

Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Average	Attainment Level	% Attainment
Human Anatomy and Physiology-I TH	C101	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutical analysis- I TH	C102	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutics-I TH	C103	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma. Inorganic chemistry TH	C104	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Communication skills TH	C105	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
		University	50	-	-	-	-	-	-	-		
Human Anatomy and Physiology-I PR	C107	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutical analysis- I PR	C108	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25	75%
		University	50	1.5	1.5	1.5	1.5	1.5	1.5	1.5		
Pharmaceutics-I PR	C109	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma Inorganic chemistry PR	C110	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Communication skills PR	C111	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		



HAP -II TH	C201	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma. organic chemistry-I TH	C202	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Biochemistry TH	C203	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pathophysio TH	C204	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Computer TH	C205	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
EVS TH	C206	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

HAP-II PR	C207	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma. organic chemistry-I PR	C208	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Biochemistry PR	C209	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Computer PR	C210	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		



Pharma.organic chemistry-II TH	C301	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25	75%
		University	1.5	1.5	1.5	1.5	1.5	1.5	1.5		
Physical pharma. -I TH	C302	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma. micro TH	C303	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutical engineering TH	C304	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Pharmaceutical Organic chemistry- II PR	C305	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Phy. pharma-I PR	C306	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharm. micro PR	C307	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutical engineering PR	C308	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		



Pharma.Organic chem.-III TH	C401	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Medicinal chemistry-I TH	C402	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Phy. ceutics-II TH	C403	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacol-I TH	C404	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
P'cognosy and phyto-II TH	C405	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Medicinal chemistry-I PR	C406	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Phy pharma-II PR	C407	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacology-I PR	C408	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
P'cognosy and phyto-II TH PR	C409	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		



Medicinal chemistry-II TH	C501	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Industrial pharmacy-I TH	C502	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacology-II TH	C503	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
P'cognosy and phyto-II TH	C504	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutical jurisprudence TH	C505	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Industrial pharmacy-I PR	C506	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacology-II PR	C507	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
P'cognosy and phyto-II PR	C508	Internal	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Medicinal chemistry-III TH	C601	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacology-III TH	C602	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25		
Herbal drug technology TH	C603	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25		
Biopharm and pckinetics TH	C604	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma biotech TH	C605	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25		
Quality assurance TH	C606	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25		



Medicinal chemistry-III PR	C607	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacology-III PR	C608	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Herbal drug technology PR	C609	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Instrumental methods of analysis TH	C701	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Industrial pharmacy-II TH	C702	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacy practice TH	C703	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Novel drug delivery system TH	C704	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Instrumental methods of analysis PR	C705	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Practice school PR	C706	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		



Biost TH	C801	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
SOC. & Prev. Pharm. TH	C802	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma marketing management TH	C803	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma regulatory science TH	C804	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
P'covigilance TH	C805	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
QC and std of herbs TH	C806	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.0	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Experimental pharmacology TH	C807	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Advanced instrumentation techniques TH	C808	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Project work PR	C809	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		



Table 3.2
CO attainment for Academic Year-2021-22

Course	Code	Exam	Target (%)	CO1	CO2	CO3	CO4	CO5	CO6	Average	Attainment Level	% Attainment
Human Anatomy and Physiology-I TH	C101	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutical analysis- I TH	C102	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutics-I TH	C103	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma. Inorganic chemistry TH	C104	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Communication skills TH	C105	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Remedial Maths- TH	C106	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Remedial Bio-TH	C106	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Human Anatomy and Physiology-I PR	C107	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutical analysis- I PR	C108	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutics-I PR	C109	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma Inorganic chemistry PR	C110	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Communication skills PR	C111	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Rem. Bio PR	C112	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		



HAP -II TH	C201	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma. organic chemistry-I TH	C202	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	25%
		University	50	0	0	0	0	0	0	0		
Biochemistry TH	C203	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pathophysio TH	C204	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25	75%
		University	50	1.5	1.5	1.5	1.5	1.5	1.5	1.5		
Computer TH	C205	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
EVS TH	C206	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

HAP-II PR	C207	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma. organic chemistry-I PR	C208	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Biochemistry PR	C209	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Computer PR	C210	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		



Pharma.organic chemistry-II TH	C301	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Physical pharma. -I TH	C302	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma. micro TH	C303	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutical engineering TH	C304	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Pharmaceutical Organic chemistry-II PR	C305	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Phy. pharma-I PR	C306	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharm. micro PR	C307	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutical engineering PR	C308	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Pharma.Organic chem..-III TH	C401	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Medicinal chemistry-I TH	C402	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25	75%
		University	50	1.5	1.5	1.5	1.5	1.5	1.5	1.5		
Phy. Pceutics-II TH	C403	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.5	50%
		University	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75		
Pharmacol-I TH	C404	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	25%
		University	50	0	0	0	0	0	0	0		
P'cognosy and phyto-I TH	C405	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.5	50%
		University	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75		



Medicinal chemistry-I PR	C406	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Phy pharma-II PR	C407	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacology-I PR	C408	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
P'cognosy and phyto-I TH PR	C409	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Medicinal chemistry-II TH	C501	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Industrial pharmacy-I TH	C502	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacology-II TH	C503	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
P'cognosy and phyto-II TH	C504	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmaceutical Jurisprudence TH	C505	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Industrial pharmacy-I PR	C506	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacology-II PR	C507	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
P'cognosy and phyto-II PR	C508	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		



Medicinal chemistry-III TH	C601	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacology-III TH	C602	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Herbal drug technology TH	C603	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	2.25	75%
		University	50	1.5	1.5	1.5	1.5	1.5	1.5	1.5		
Biopharm and pckinetics TH	C604	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma biotech TH	C605	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Quality assurance TH	C606	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Medicinal chemistry-III PR	C607	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacology-III PR	C608	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Herbal drug technology PR	C609	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Instrumental methods of analysis TH	C701	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Industrial pharmacy-II TH	C702	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharmacy practice TH	C703	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Novel drug delivery system TH	C 704	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		



Instrumental methods of analysis PR	C705	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Practice school PR	C706	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Biost TH	C801	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.5	50%
		University	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75		
SOC. & Prev. Pharm. TH	C802	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma marketing management TH	C803	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Pharma regulatory science TH	C804	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
P'covigilance TH	C805	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
QC and std of herbs TH	C806	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Experimental pharmacology TH	C807	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		
Advanced instrumentation techniques TH	C808	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		

Project work PR	C809	Internal	50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	3.00	100%
		University	50	2.25	2.25	2.25	2.25	2.25	2.25	2.25		



CRITERION 4	STUDENT'S PERFORMANCE	180
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4. Students Performance (180)

4.1 Enrolment Ratio (20)

Enrolment Ratio= N1/N

Academic Session	Sanction Intake	Total number of students admitted in first year (N1)	Number of students admitted in 2 nd year in the same batch via lateral entry (N2)	Total number of students admitted (N1+N2)
2015-16	100	101	12	112
2016-17	100	100	10	110
2017-18	100	96	16	112
2018-19	100	99	14	113
2019-20	100	101	24	125
2020-21	100	102	22	124
2021-22	100	111	15	126



Item	2021-22	2020-21	2019-20	2018-19
Sanction Intake of the programme (N)	100	100	100	100
Total number of students admitted in first year (N1)	112	102	101	99
Number of students admitted in 2 nd year in the same batch via lateral entry (N2)	15	22	24	14
Total number of students admitted in the programme (N1+N2)	126	124	125	113

4.2.1- Success rate without backlog in any semester / year of study

Item	Graduation year 2021-22	Graduation year 2020-21	Graduation year 2019-20	Graduation year 2018-19
Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry	113	112	110	113
Number of students who have graduated without backlogs in the stipulated period	52	50	46	51
Success index (SI)	0.460	0.446	0.418	0.451

Average SI = 0.441

Success Rate =13.24



$SI = (\text{Number of students who graduated from the program without backlog}) / \{(\text{Number of students admitted in the first year of that batch}) \text{ plus } (\text{lateral entry students admitted in second year of study})\}$

Average SI = Mean of success index (SI) for past three batches

Success rate without backlogs in any year of study = 30 × Average SI

4.2.2- Success rate with backlog in any semester / year of study

Item	Graduation year 2021-22	Graduation year 2020-21	Graduation year 2019-20	Graduation year 2018-19
Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry	113	112	110	113
Number of students who have graduated with backlog in the stipulated period	52	33	49	19
Success index (SI)	0.460	0.294	0.445	0.168

Average SI = 0.400

Success Rate = 8.00

$SI = (\text{Number of students who graduated from the program in the stipulated period of course duration}) / \{(\text{Number of students admitted in the first year of that batch}) \text{ plus } (\text{lateral entry students admitted in second year of study})\}$

Average SI = mean of success index (SI) for past three batches

Success rate = 20 × Average SI



Criteria 4.3 – Academic Performance in Final Year

Academic Performance = Average API

Academic Performance Index(API) = ((Mean of Final Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Final Year/10)) x (successful students/number of students appeared in the examination)

Successful students are those who passed in all the final year courses

Academic Performance	2021-22	2020-21	2019-20	2018-19
Mean of CGPA or Mean Percentage of all successful students (X)	8.735	9.545	8.536	7.048
Total no. of successful students (Y)	113	86	75	78
Total no. of students appeared in the examination (Z)	124	86	109	112
API = x* (Y/Z)	7.960	9.545	5.873	4.906
Academic Performance= Average API =(AP1 + AP2 + AP3)/3	7.793			



Criteria 4.3 Academic Performance in Third Year

Academic Performance = Average API

Academic Performance Index = ((Mean of 3rd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Third Year/10))
x (successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the final year

Academic Performance	2021-22	2020-21	2019-20	2018-19
Mean of CGPA or Mean Percentage of all successful students (X)	7.971	9.689	7.504	5.718
Total no. of successful students (Y)	122	126	86	114
Total no. of students appeared in the examination (Z)	122	126	86	114
API = x* (Y/Z)	7.971	9.689	7.504	5.718
Academic Performance= Average API =(AP1 + AP2 + AP3)/3	8.388			



Criteria 4.3 Academic Performance in Second Year

Academic Performance = Average API

Academic Performance Index = (API) = ((Mean of 2nd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Second Year/10)) x (successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the third year

Academic Performance	2021-22	2020-21	2019-20	2018-19
Mean of CGPA or Mean Percentage of all successful students (X)	7.624	9.846	7.084	5.818
Total no. of successful students (Y)	124	122	104	109
Total no. of students appeared in the examination (Z)	124	122	104	109
API = x* (Y/Z)	7.624	9.846	7.084	5.818
Academic Performance= Average API =(AP1 + AP2 + AP3)/3	8.185			



Criteria 4.3 Academic Performance in First Year

Academic Performance=2.0*Average API

Academic Performance Index (API) =((Mean of 1st Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in first Year/ 10)) x (successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the second year

Academic Performance	2021-22	2020-21	2019-20	2018-19
Mean of CGPA or Mean Percentage of all successful students (X)	8.381	9.881	7.265	5.181
Total no. of successful students (Y)	111	102	101	99
Total no. of students appeared in the examination (Z)	111	102	101	99
API = x* (Y/Z)	8.381	9.881	7.265	5.818
Average API =(AP1 + AP2 + AP3)/3	8.509			
Academic Performance=2*Average API	17.018			



CRITERION 5

Faculty Information and Contributions

175

5.3 Faculty Retention (20)

Faculty members retained during the period of assessment keeping CAYm3 (2018-19) as base year

Sr. No.	Name of Faculty	Date of Joining	Status during Academic Year 2021-22	Status during Academic Year 2020-21	Status during Academic Year 2019-20
1	Dr. K.R. Biyani	25-07-2005	Retained	Retained	Retained
2	Mr. U.M. Joshi	25-08-1994	Retained	Retained	Retained
3	Dr. R.R. Pagore	05-10-2005	Not Retained	Not Retained	Not Retained
4	Dr. A. A. Gawai	08-12-2011	Retained	Retained	Retained
5	Dr. A.A. Sheikh	23-06-2009	Retained	Retained	Retained
6	Dr. V.J. Chaware	18-06-2008	Not Retained	Not Retained	Retained
7	Dr. S.V. Deshmane	08-01-2003	Not Retained	Not Retained	Retained
8	Dr. S.C. Kale	25-07-2012	Retained	Retained	Retained
9	Mr. D.P. Ambhore	08-08-2004	Retained	Retained	Retained
10	Ms. S.G. Phalphale	18-08-2004	Retained	Retained	Retained
11	Mr. S.D. Sagrule	11-11-2014	Retained	Retained	Retained
12	Mr. P.N. Folane	01-01-2017	Retained	Retained	Retained
13	Mrs. R.A. Ingle	03-01-2017	Retained	Retained	Retained
14	Mrs. S.S. Deshmane	10-11-2014	Not Retained	Retained	Retained
15	Mrs. M.G. Chitte	03-01-2017	Retained	Retained	Retained
16	Mr. S.R. Kamble	01-07-2012	Not Retained	Not Retained	Not Retained
17	Ms. P.P. Udupurkar	01-07-2010	Not Retained	Not Retained	Not Retained
18	Mr. P.R. Tathe	08-06-2012	Not Retained	Not Retained	Not Retained
19	Mr. P.R. Laddha	25-06-2003	Not Retained	Not Retained	Retained
20	Ms. B.P. Chaudhari	18-07-2008	Not Retained	Not Retained	Retained
21	Mr. G.R. Sitaphale	07-11-2007	Not Retained	Not Retained	Retained
22	Mr. D.T. Panjwani	08-03-2010	Not Retained	Retained	Retained
23	Mr. N.M. Gawai	26-06-2006	Not Retained	Not Retained	Retained
24	Mr. K.B. Charhate	07-09-2008	Not Retained	Not Retained	Retained
25	Mr. R.D. Pawar	01-01-2019	Retained	Retained	Retained
26	Ms. V.D. Deshmane	01-01-2019	Retained	Retained	Retained
27	Ms. P.V. Bodkhe	01-01-2019	Retained	Retained	Retained
28	Mr. K.S. Tayde	05-02-2016	Retained	Retained	Retained
29	Mr. C.P. Nagwani	05-02-2016	Retained	Retained	Retained
30	Mr. S.S. Bharad	05-02-2016	Retained	Retained	Retained
31	Mrs. J.B. Khedekar	25-07-2018	Retained	Retained	Retained
32	Ms. P.R. Gawandar	27-07-2018	Retained	Retained	Retained
33	Mr. S.S. Harlalka	01-01-2019	Retained	Retained	Retained
Number of faculty members retained			20	22	29
% Faculty members retained during the period of assessment			60.60%	66.67 %	87.88 %
Avg % Faculty members retained during the period of assessment keeping CAYm3 as base year			71.71 %		



5.5 Faculty as participants in Faculty Development/Training Activities (15)

- A Faculty scores maximum five points for participation
- Participant in 2 to 5 days Workshop/Faculty Development Program: 3 Points
- Participant >5 days Workshop/Faculty Development Program: 5 points

Sr. No.	Name of the Faculty	Max. 5 per Faculty		
		CAY (2021-22)	CAY _{m1} (2020-21)	CAY <i>m2</i> (2019-20)
1	Dr. K. R. Biyani	05	05	--
2	Prof. U. M. Joshi	--	05	--
3	Dr. Gopal V. Bihani	05	--	--
4	Dr. A. A. Shaikh	05	05	05
5	Dr. Ashish A. Gawai	05	05	--
6	Dr. P. B. Dudhe	03	--	05
7	Prof. D. P. Ambhore	--	05	03
8	Dr. S.C. Kale	--	05	05
9	Ms. S.G. Phalphale	05	03	--
10	Ms. P.R. Gawandar	03	05	03
11	Mr. P.N. Folane	05	05	05
12	Ms. M. G. Chitte	--	05	--
13	Ms. P.D. Gadekar	03	05	05
14	Mrs. J. B. Khedekar	03	03	--
15	Mr. Suraj D. Segrule	--	05	--
16	Mrs. S. P. Dudhe	--	05	--
17	Ms. P.P. Dusad	03	--	--
18	Mr. R.D. Pawar	03	03	--
19	Mr. R.D. Kalwe	03	--	05
20	Ms. V. D. Deshmane	03	03	
21	Ms. R. A. Ingale	03	03	03
22	Mr. Suchit S. Bharad	03	03	--
23	Mr. Shubham B. Patil	03	03	--
24	Ms. Priyanka C. Rathi	03	05	--
25	Mr. Vrushabh S. Dhote	03	03	--
26	Mr. Sachin P. Popalghat	03	--	05
27	Ms. Manisha D. Usar	03	05	--
28	Mr. Nandip S. Waghmare	03	03	--
29	Ms. P.V. Sonune	03	05	--
30	Mrs. A.R. Kale	03	03	--



31	Mr. C.P. Nagwani	03	03	--
32	Mr. D.S. Belokar	03	--	--
33	Mr. K.S. Tayde	03	--	--
34	Mr. P.S. Lambe	03	--	--
35	Mr. S.R. Solanke	03	--	--
36	Mr. S.S. Harlalka	03	--	--
37	Mr. A.N. Sulakhe	03	--	--
38	Mr. G.V. Theng	03	--	--
39	Mr. G.S. Bhojane	03	--	--
40	Mr. Firoj Abdul Hadi Deshmukh	03	--	--
		114	108	44
	RF=Number of Faculty required to comply with 15:1 Student-Faculty ratio as per 5.1	39.8	35.87	33.87
	Assessment = $3 \times \text{Sum}/(0.5$ RF)	17.16	18.06	7.77
Average assessment over three years (Marks limited to 15) =14.33				



5.6 Research and Development (40)

5.6.1: Academic Research

- **Ph.D. Guided / Awarded during assessment periods while working in the institutes**

Name of Faculty	Number of Student/Faculty		
	2019-2020	2020-2021	2021-2022
Dr. K.R. Biyani	02	00	02

Ph.D. Awarded during assessment periods while working in the institutes

Name of Faculty	Name of Student/Faculty	Ph.D. awarded year
Dr. K.R. Biyani	Dr. Dinesh R. Chandak	2019-2020
	Dr. Purushottam R. Laddha	2019-2020
	Dr. Sharad V. Usnale	2021-2022
	Dr. Abhaykumar D. Sakhare	2021-2022

Ph.D. Students thesis examined and taken viva-voce:

Sr. No.	Name of Faculty	Name of Ph.D. Scholar	Ph.D. Thesis Topic	Name of University
1.	Dr. K.R. Biyani	Mr. Vikas Bhausahab Gawali	Preclinical Evaluation of Poly-Herbal Formulation for its Anti-Diabetic Effect and its Interaction with Synthetic Anti-Diabetic Drugs.	Savitribai Phule Pune University, Amravati (M.S.)



Ph.D. Awarded during assessment periods while working in the institutes

Sr. No.	Name of Student/Faculty	Ph.D. Thesis entitled	Year of Ph.D. Degree Awarded	Name of University
01.	Dr. Dinesh R. Chandak	“Development and Evaluation of Analgesic and Anti-Inflammatory Activity of A Poly Herbal Formulation”	August 26, 2019	PAHER University, Udaipur (Raj.)
02.	Dr. Purushottam R. Laddha	“Synthesis and Pharmacological Screening of derivatives of Aryloxy Moiety for Antimicrobial Activity”	February 29, 2020	S.G.B. Amravati University, Amravati (M.S.)
03.	Dr. Sharad V. Usnale	“Pharmacological Evaluation of Some Indian Medicinal Plants and their Combination for Aphrodisiac Activity”	July 2021	S.R.T.M.U. Nanded (M.S.)
04.	Dr. Abhaykumar D. Sakhare	Design and Evaluation of Novel Transdermal Drug Delivery System	September 2021	JJTU, Rajasthan

Visiting/Adjunct Faculty (5)

Adjunct faculty also includes experts from Industry, Research Organizations/Universities and other Government Organizations.

Provide details of participation and contributions in teaching and learning and /or research by visiting/adjunct faculty for all the assessment years.

- Provision of visiting/adjunct faculty (2)
- Minimum 50 hours interaction in a year will result in 1 mark for that year;
1 marks x 3years=3marks.

Assessment Year 2021-2022				
Class	Semester	Subject	Name of Visiting Faculty	No. of Interaction
B.Pharm	I	Remedial Mathematics	Mr. A. Ailani	32
B.Pharm	I	Communication Skill	Mr. TusharDodia	60
B.Pharm	II	Computer Applications in Pharmacy	Mr. S. Narwade	60
Total				152



Assessment Year 2020-2021				
Class	Semester	Subject	Name of Visiting Faculty	No. of Interaction
B.Pharm	I	Remedial Mathematics	Mr. A. Ailani	31
B.Pharm	I	Communication Skill	Mr. B.M. Jadhao	62
B.Pharm	II	Computer Applications in Pharmacy	Mr. S. Bhusari	60
Total				153

Assessment Year 2019-2020				
Class	Semester	Subject	Name of Visiting Faculty	No. of Interaction
B.Pharm	I	Remedial Mathematics	Mr. A. Ailani	32
B.Pharm	I	Communication Skill	Mr. B.M. Jadhao	61
B.Pharm	II	Computer Applications in Pharmacy	Mr. S. Bhusari	60
Total				153



CRITERION

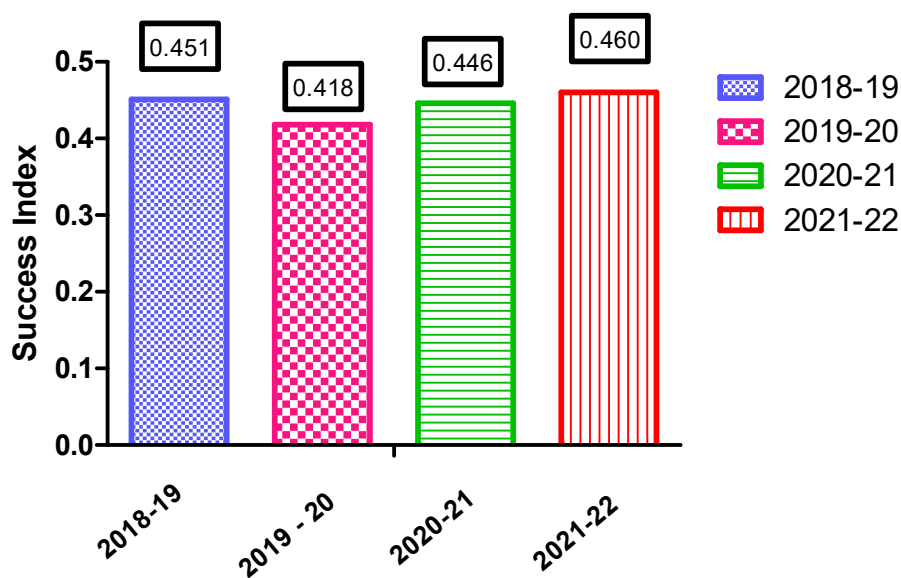
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Continuous Improvement

75

7.1 Improvement in Success Index of Students without the backlog

$SI = (\text{Number of students who graduated from the program without backlog}) / (\text{Number of students admitted in the first year of that batch and admitted in 2nd year via lateral entry})$. Assessment shall be based on improvement trends in success indices. Marks are awarded accordingly.



Item	<i>Last Year of Graduation minus 3 (LYGm3)</i>	<i>Last Year of Graduation minus 2 (LYGm2)</i>	<i>Last Year of Graduation minus 1 (LYGm1)</i>	<i>Last Year of Graduation (LYG)</i>
Entry year	<i>2015-16</i>	<i>2016-17</i>	<i>2017-18</i>	<i>2018-19</i>
Pass out Year	<i>2018-19</i>	<i>2019-20</i>	<i>2020-21</i>	<i>2021-22</i>
Number of students admitted in corresponding First year + Admitted in 2nd year via lateral entry	113	110	112	113
Number of students who have graduated without backlogs in the stipulated period	51	46	50	52
Success index (SI)	0.451	0.418	0.446	0.460



7.2 Improvement in Placement and Higher Studies (15)

Assessment is based on improvement in:

- Placement: number, quality placement, core industry, pay packages etc.
- Higher studies: performance in GPAT etc., and admissions in premier institutions

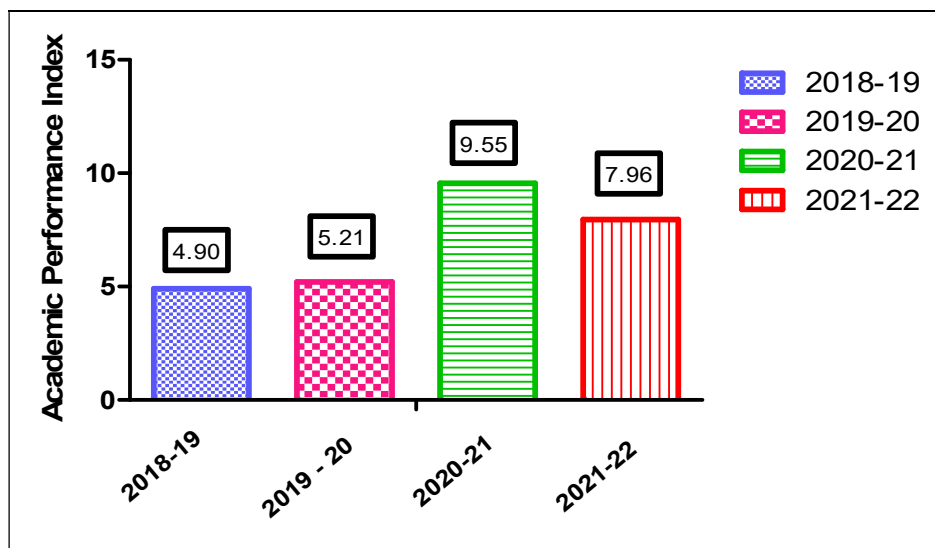
Year	GPAT	No. of student qualified in GPAT	No. of students opted for higher studies
2021-22	2022	18	14
2020-21	2021	33	19
2019-20	2020	22	10

Items	LYG (Entry Year 2017-18)	LYGm1 (Entry Year 2016-17)	LYGm2 (Entry Year 2015-2016)
Items	Passout Year 2021-22	Passout Year 2020-21	Passout Year 2019-20
Placement Index (from 4.7)	0.707	0.872	1



7.3 Improvement in the Academic Performance Index (API) of the Final Year Students

Academic Performance Index = (Mean of Final Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Final Year/10)) x successful students/number of students appeared in the examination) Successful students are those who passed in all the final year courses.



Academic Performance	CAYm3 2018-19	CAYm2 2019-20	CAYm1 2020-21	CAY 2021-22
Mean Percentage of all successful students (X)	7.04	8.54	9.55	8.74
Total number of successful students (Y)	78	75	86	113
Total number of students appeared in the examination (Z)	112	123	86	124
API = X*(Y/Z)	4.90	5.21	9.55	7.96



7.4 Improvement in the quality of students admitted to the program.

Item		CAY m1 2021-22	CAY m2 2020-21	CAY m3 2019-20	CAY m4 2018-19
National level entrance examination (Name of entrance examination) NEET.	No. of students admitted	08	08	07	07
	Opening score/rank	70.0986	90.43	78.89	79.96
	Closing score/rank	24.4175	57.34	50.81	74.03
State/University level entrance examination/others (MH-CET)	No. of students admitted	101	93	93	92
	Opening score/rank	95.1708	97.9885	98.12	119
	Closing score/rank	5.3097	0.1674	1.43	39
Name of entrance examination for lateral entry or lateral entry details (Diploma Examinations).	No. of students admitted	22	24	14	16
	Opening score/rank	94.00	98.10	86.70	85
	Closing score/rank	68.00	67.70	58.40	60.80
Average CBSE/ any other board result of admitted students (Physics, Chemistry & Maths)		249.53	203.31	198.51	205.50



CRITERION 9	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	100
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9.1. Organization, Governance and Transparency (50)**9.1.1. Governing body, administrative setup, functions of various bodies, service rules****Procedures, recruitment and promotional policies (10)**

The following aspects are dealt and recorded below under different headings, for governance and transparency.

- A) Governing Body
- B) College Development committee. (CDC)
- C) Organizational chart
- D) Rules, procedures, recruitment and promotional policies

Governing Body (Till April 2022)

The following is the composition of the Governing Body Anuradha College of Pharmacy, Chikhli till

Sr. No.	Name of the Member	Designation	Position Held
1.	Shri.Siddhivinayakji K. Bondre	Chairman	Chairman of the Trust
2.	Dr.V.R.Yadav	Member	Trust Nominee
3.	Shri. Rahulbhai S. Bondre	Member	Secretary of the Trust
4.	Shri.S.M.Wanere	Member	Trust Nominee
5.	Shri. Harishbhai Shah	Member	Industrialist
6.	Dr.Tatyraoji Lahane	Member	Academician
7.	Shri.Omprakashji Shete	Member	Social Worker
8.	Dr.K.R.Biyani	Secretary (Ex- Officio)	Principal



Composition of new Governing Body (April 2022 onwards)

Sr. No.	Name of the Member	Designation	Position Held
1.	Shri.Rahulbhau S. Bondre	Chairman	Chairman of the Trust
2.	Dr.V.R.Yadav	Member	Trust Nominee
3.	Mrs. Vrushalitai R. Bondre	Member	Trust Nominee
4.	Shri.S.M.Wanere	Member	Trust Nominee
5.	Shri.Anilji Nawander	Member	Trust Nominee
6.	Dr.Tatyaraoji Lahane	Member	Academician
7.	Shri. Harishbhai Shah	Member	Industrialist
8.	Shri.Omprakashji Shete	Member	Social Worker
9.	University Nominee	Member (Ex- Officio)	Ex- Officio
10.	D.T.E Nominee	Member (Ex- Officio)	Ex- Officio
11.	Dr.K.R.Biyani	Secretary (Ex- Officio)	Principal

Powers and Functions of the Governing Body:

The Governing Body, besides being the supreme administrative authority of the college, shall have the following functions:

- i) To consider the important communications, policy decisions received from the University, Government, etc.
- ii) To make recommendations on the planning and monitoring the college.
- iii) Fixation of the fee and other charges that are payable by the students to the college based on then recommendations of the Fees Regulating Authority, Mumbai, Govt. of Maharashtra.
- iv) To make recommendations on the planning and monitoring the college.
- v) To consider and approve the proposals for creation of infrastructure such as building, equipment, library on continuous basis.



Scheduled Meetings of the Body

2022-23	2021-2022	2020-21
15/10/2022	04/09/2021	29/08/2020
-	16/04/2022	10/01/2022

A. College Development Committee (CDC)

Sr.No.	Designation in CDC	Name of Member	Position Held
1.	Chairperson of the management / his Nominee	Honorable Shri. Rahulbhai S. Bondre	Chairman
2.	Secretary of the Management / his Nominee	Dr. V. R. Yadav	Trust Nominee
3.	Local member nominated by the Management	Mr. S. M. Wanere	Trust Nominee
4.	Teacher Representative	Mr. U. M. Joshi	HOD Nominated by the Principal
5.	Teacher Representative	Mrs. S. D. Tupkar	Assistant Professor
6.	Non-Teaching Representative	Mr. V. D. Patil	Senior Technician
7.	Industrial Nominee	Mr. V. S. Parhad	Industry Expert
8.	Ex.Officio Secretary	Dr. K. R. Biyani	Principal ACP, Chikhli

Powers and Functions of the CDC:

1. To monitor the academic and other related activities of the college.
2. To consider the recommendations of the staff selection committee.
3. To monitor the development programmes of students and faculty. Institute scholarships, Fellowships, studentships, medals, prizes and certificates based on the recommendations of the Institutional Development and Monitoring Committee (IDMC).
4. To pass the annual budget of the college.
5. To approve the budget estimates- recurring and non- recurring expenses for the financial year in advance.
6. To check the audited statement and expenditure accounts and approve the same for the college annually.



2022-23	2021-2022	2020-21
03/12/2022	04/012/2021	05/12/2020
-	04/06/2022	05/06/2021

B. Internal Quality Assurance Cell

Sr.No.	Name	Position Held	Designation
1.	Prof. Dr. K. R. Biyani	Principal	Chairperson
2.	Dr. A. A. Gawai	Faculty Member	Faculty Representative
3.	Mr. D. P. Ambhore	Faculty Member	Faculty Representative
4.	Mr. S. M. Bondre	Accountant	Non-Teaching Representative
5.	Mr. Vinod Nagwani	Alumni	External Member
6.	Mr. V.S.Parhad	Employer	External Member
7.	Mr. U. M. Joshi	IQAC- Coordinator	Member Secretary

Functions of IQAC

Objective

The primary aim of IQAC is

- To develop a system for conscious, consistent and catalytic action to improve the academic and administrative performance of the institution.
- To promote measures for institutional functioning towards quality enhancement through internalization of quality culture and institutionalization of best practices.



Strategies

IQAC shall evolve mechanisms and procedures for

- a) Ensuring timely, efficient and progressive performance of academic, administrative and financial tasks;
- b) The relevance and quality of academic and research programmes;
- c) Equitable access to and affordability of academic programmes for various sections of society;
- d) Optimization and integration of modern methods of teaching and learning;
- e) The credibility of evaluation procedures;
- f) Ensuring the adequacy, maintenance and proper allocation of support structure and services;
- g) Sharing of research findings and networking with other institutions in India and abroad.

Functions

Some of the functions expected of the IQAC are:

- a) Development and application of quality benchmarks/parameters for various academic and administrative activities of the institution;
- b) Facilitating the creation of a learner-centric environment conducive to quality education and faculty maturation to adopt the required knowledge and technology for participatory teaching and learning process;
- c) Arrangement for feedback response from students, parents and other stakeholders on quality related institutional processes;
- d) Dissemination of information on various quality parameters of higher education;
- e) Organization of inter and intra institutional workshops, seminars on quality related themes and promotion of quality circles;
- f) Documentation of the various programmes/activities leading to quality improvement;
- g) Acting as a nodal agency of the Institution for coordinating quality-related activities, including adoption and dissemination of best practices;
- h) Development and maintenance of institutional database through MIS for the purpose of maintaining /enhancing the institutional quality;
- i) Development of Quality Culture in the institution;



Scheduled Meetings of the Body:-

2022-23	2021-2022	2020-21
017/12/2022	18/12/2021	19/12/2020
-	18/06/2022	19/06/2021

Finance Committee

S. No.	Name of the Members	Designation
1.	Shri. Rahulbhau S. Bondre	Chairman
2.	Prof. (Dr.) K. R. Biyani	Member
3.	Shri. S. M. Wanere	Member
4.	Shri.S. M. Bondre	Member

Equipment Committee

S. No.	Name of the Members	Designation
1.	Prof. (Dr.) K. R. Biyani	Chairman
2.	Prof. (Dr.) A. A. Gawai	Member
3.	Prof. (Dr) A. A. Shaikh	Member
4.	Prof. (Ms.) S. G. Phalphale	Member

Building Committee

S. No.	Name of the Members	Designation
1.	Shri. Rahulbhau S. Bondre	Chairman
2.	Prof. (Dr.) K. R. Biyani	Member
3.	Shri. S. M. Wanere	Member
4.	Shri. Narayan Patil	Site Engineer

Staff Selection Committee

S. No.	Name of the Members	Designation
1.	Shri. Rahulbhau S. Bondre	Chairman
2.	Shri. S. M. Wanere	Member
3.	Prof. (Dr.) K. R. Biyani	Member
4.	Shri.U. M. Joshi	Member



Grievance Redressal Committee

S. No.	Name of the Members	Designation
1.	Prof. (Dr.) K. R. Biyani	Chairman (Principal)
2.	Dr. S. C. Kale	Member (Teaching staff representative)
3.	Mr. D. P. Ambhore	Member (Teaching staff representative)
4.	Miss. S. D. Tupkar	Member (Teaching staff representative)
5.	Mr. V. D. Patil	Member(Non teaching staff representative)
6.	Mr. Santosh Hake	Member (Parent Representative)
7.	Miss. Pranjal Tupkar	Member(Student Representative)
8.	Mr. Mahesh Kale	Member(Student Representative)

Anti - Ragging Committee

S. No.	Name of the Members	Designation
1.	Prof. (Dr.) K. R. Biyani	Chairman (Principal)
2.	Prof. U. M. Joshi	Faculty Member
3.	Mr. D. P. Ambhore	Faculty Member
4.	Mr. V. F. Kakad	Police Representative
5.	Mr. Samadhan Gadekar	Media Representative
6.	Mr. V. D. Patil	Non-teaching staff
7.	Mr. D. N. Tupkar	Civil Representative
8.	Mr. Mohanappa Bondre	Parent Representative
9.	Miss. Snehal Kedar	Student Representative
10.	Mr. Saurabh Bondre	Student Representative

Anti-Ragging Squad

S. No.	Name of the Members
1.	Prof. U. M. Joshi
2.	Prof. D. P. Ambhore
3.	Miss. S. G. Phalphale
4.	Miss. P. R. Gawandar
5.	Mr. V. D. Patil



Committee for SC & ST

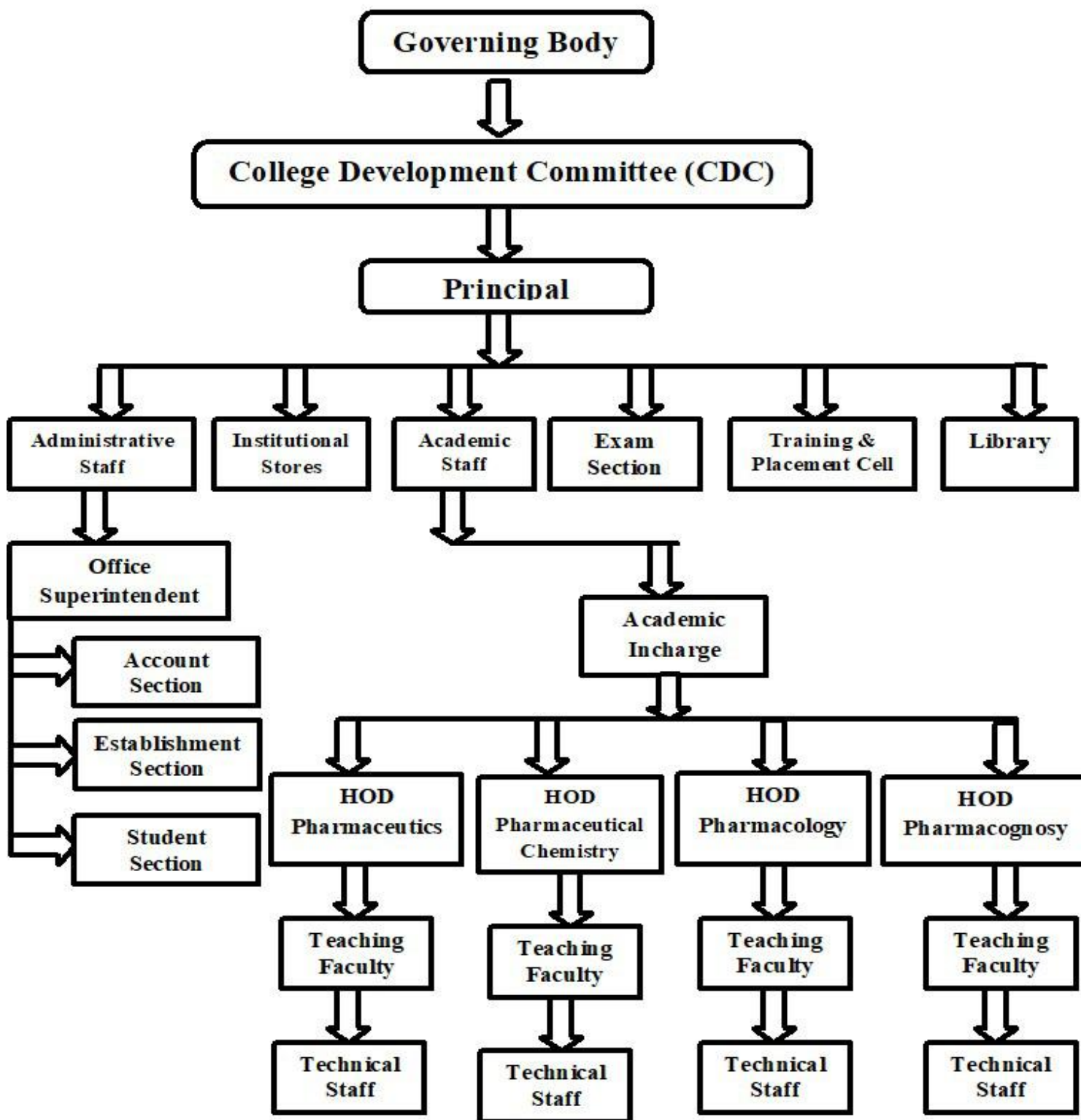
S. No.	Name of the Members	Designation
1.	Prof. (Dr.) K. R. Biyani	Chairman (Principal)
2.	Adv. Mr. Vilas N. Nanhai	Liaison Officer
3.	Prof. (Dr.) A. A. Gawai	Member
4.	Prof. Dr. A. A. Shaikh	Member
5.	Mr. N. G. Jadhao	Member
6.	Mr. S. B. Jadhao	Member
7.	Miss. Renuka Zarekar	Student Representative
8.	Mr. Shubham Mahajan	Student Representative

Women Development Cell (Internal Complaint Committee)

S. No.	Name of the Members	Designation
1.	Miss. S. G. Phalphale	Chairperson
2.	Prof. S. P. Dudhe	Faculty Member
3.	Prof. R. A. Ingle	Faculty Member
4.	Mr. S. P. Nikalje	Non teaching staff Member
5.	Adv. Sau. Vrushalitai Bondre	Member
6.	Miss. Snehal Chavhan	Student nominee
7.	Renuka Zarekar	Student nominee



B. The organization chart of the Institution:-



C. Defined rules, procedures, recruitment, and promotional policies, etc.

Following acts and rules are adopted as guidelines for procedures, recruitment, promotional policies, code of conduct issued from time to time by the regulatory bodies:

- Rules for Affiliation by SGBAU University, Amravati
- All other applicable state/central government rules/regulations
- Rules and By-laws of Society
- Norms of Pharmacy Council of India (PCI)

Rules for Recruitment for Teaching Staff

Cadre Structure

- (a) Principal
- (c) Professor
- (d) Associate Professor
- (e) Assistant Professors

Qualifications

Faculty is recruited based on the qualifications prescribed by the PCI and SGBAU University from time to time.

Mode of Selection of Teaching Staff

Direct recruitment to all cadres is based strictly on merit. Invariably in almost all cases, the following procedure is followed:

- a) Advertisements are issued in leading newspapers.
- b) Applications are scrutinized 30 days after the last day for receipt of application.
- c) The lists of applications and resumes with relevant details are prepared for Selection Committee nominated by SGBAU University.
- d) The Registrar, SGBAU University appoints the subject experts and Vice Chancellor nominee for the posts of Assistant Professors, Associate Professors, & Professors.
- e) Call letters are sent to eligible candidates, for attending interviews specifying place, date and time of interview.
- f) Selection Committee interviews and recommends candidates.
- g) Letters of appointment are issued to selected candidates.
- h) The selection list along with supporting documents are sent to the Registrar, SGBAU University for approval.



Selection Committee

1. Vice Chancellor/nominee as the Chairman of the selection committee
2. President/Nominee of President of the Anuradha College of Pharmacy
3. Expert Members (Nominated by University)
4. Commissioner/nominee from the Director Technical Education, Govt. of Maharashtra.
5. Principal.

Cadre Structure

a) Office

- (i) Administrative Officer (Graduate with experience)
- (ii) Senior Assistant (Graduate with experience)
- (iii) Junior Assistant (Graduate)
- (iv) Peon (below or equal to SSC)

b) Laboratories (other than computer Labs)

- i) Lab Technician (Diploma in Pharmacy / DMLT / B.Sc.)
- ii) Lab Attendant (below or equal to SSC)

c) Computer Labs

- i) System Administrator
- ii) Lab Technician (Graduate with experience)

Qualifications

Non-teaching staff are recruited on the qualifications prescribed by the State Government.

Mode of Selection of Non – Teaching Staff

All positions are advertised in the news papers or notified in the local notice boards. After scrutiny of received applications, a short list is made by Anuradha College of Pharmacy, Secretary/Principal; Interview call letters are sent to eligible candidates to appear for personal interview. The selection committee consists of some or all of the following:



(a) President/nominee of President of the Educational Society

(b) Principal

(c) Administrative Head

- All appointments (Teaching and Non-teaching staff) made after selection, are forwarded to the Chairman for approval and to the Governing Body.
- Management is a single term used to collectively represent the society through President of Anuradha College of Pharmacy, Chikhli

Probation Period Policy

Probation: Probation means an appointment made on trial on specified conditions for a stipulated period to a post for determining one's fitness for the job. With the exception of certain employees, all regular employees serve the first two years of employment on probation.

Temporary appointment: It means appointment made purely on temporary basis either for a permanent post or in tenure post or against a temporary post. With the exception of certain employees, all regular employees serve the first twelve months of employment on a temporary basis.

Evaluation in Probation Period: Probation period allows the employee's department head to evaluate the ability, suitability, and potential for success of the employee. It also allows time for the employee to decide their job satisfaction. Fifteen days prior to the completion of probation period, the Head of the Department, based on his / her evaluation, will intimate an employee about his performance / non-performance to the Principal. The Management decide to continue service or he / she may be terminated from service.

Continuance of Probation: If the employee's service during the probationary period is deemed unsatisfactory but if it is determined that the employee should continue in a probation status rather than being terminated, the recommendation that the employee remain in a probationary status should be forwarded by the Head of the Institute to the Management. In all such instances, the employee must be counseled and notified in writing regarding the extension of the probationary period.

Voluntary Resignations: It may be accepted in lieu of termination. Unless notified all job offers are on a permanent requirement with a probation period. Termination of employment, or other disciplinary action, during the probationary period, is not subject to progressive discipline and the grievance procedure.



Salary Policy

Type & fixation of Initial salary: In general, the type and fixation of initial salary is subject to statutory requirements like those of the government pay scales (Current is 6th pay rule), University of Amravati norms. Salary is fixed at the discretion of management.

a. Consolidated salary Usually non-teaching staff is paid consolidated salary at the time of joining till regularization of salary on the basis of individual performance. Salary fixation is dependent upon post, qualifications, experience as well as employees service at Anuradha College of Pharmacy institutes. It is fixed as per management decision,

Salary and Increments as per pay

Salary Increments (Rationalization):

i. Time scale of pay: Time scale of pay means a scale in which the salary raises subject to the conditions prescribed in the statutes of 6th pay rules by periodical increments, from a minimum to maximum. Every employee is entitled to an annual increment in salary subject to the recommendations of the Head of the Institute as per the requirements of government pay scales, as per the norms SGBAU, Amravati etc. The recommendations based on the performance appraisal of the employee are reviewed by the Principal and Executive.

ii. Payroll Schedules: Employees are paid for all the days of the month. Payment is directly deposited with a designated bank in the individual's account or given in cash for employees who are paid for visits or whose job is menial in nature of employment. All employees are advised to open a savings bank account in designated bank and intimate the account number to Accounts Department in writing within 7 days from the date of joining.

Payment mode of salary: Every employee opens a salary through bank and the salaries are transferred to employees account.

Payroll Deductions: Income-tax, professional tax and contributory provident funds are deducted wherever applicable. An employee may also authorize deductions for institute-sponsored health benefits, insurance, and employee's emergency fund wherever applicable. All other deductions will be notified to the employees. Employees are not allowed to commit any deductions from salary directly to any outside agency / bank / financial institution / co-operative society, etc without explicit written permission by the Management / Principal.

i. Income-tax: It is mandatory that all staff must present their deduction scheme to the Administration by the end of May, and final proof for savings by the end of December of each calendar year in order to finalize tax deducted at source for the year.



ii. Contributory Provident Fund Scheme: Contributory provident fund facility is available to grade III cadre employees from the starting date of their employment. This facility is granted to those employees having university pay scale only after completing 3 years of service.

Promotion and Transfer Policy

1. A promotion is the shift of an employee from one position to another with more responsible duties or requiring more skills. Promotions are based on merit and qualifications required for the higher position. A pay rise is eminent in case of promotions but the Management reserves the right to do so.

2. A lateral transfer is when an employee moves from one position to another position that is on the same pay scale regardless of the title of the new position.

3. Transfers and promotions during probation period are subject to an administrative approval for the same, by Principal.

4. Employees are encouraged to apply for any position for which they are qualified and should contact the Principal for specific information.

5. When an employee is promoted either on applying for an advertised position or via the reclassification process the employee may receive remuneration based on an employee's exceptional experience and/or education and job responsibility.

6. A faculty desiring of promotion to a higher post has to face the Selection Committee appointed by the SGBAU and only on the recommendations of the committee he /she is granted promotion.

iii) Promotion Policy for Teaching Staff

□ Career Advancement Scheme is implemented strictly as per the Government norms. Higher posts such as Professor and Associate Professor are offered through selection committee constituted by the Registrar, SGBAU University.



Sr.No.	Name of Staff Member	Date of Promotion
Assistant Professor to Associate Professor		
1.	Mr. Suchit S. Bharad	01/12/2020
2.	Ms. Anita R. Kale	01/12/2021
3	Mr. Chetan P. Nagwani	01/12/2020
4	Mr. Kishore S. Tayade	01/12/2019
5	Mr. Pawan N. Folane	01/12/2020
6	Mr. Dipak P. Ambhore	01/12/2019
7	Mr. Suraj D. Sagrule	01/12/2020
8	Dr. Sachin C. Kale	01/12/2020
9	Ms. Shivanee. D. Tupkar	01/12/2020
10	Ms. Jyoti. B. Khedekar	01/12/2022
11	Dr. Aijaz. A. Shaikh	01/06/2017
12	Dr. Ashish A. Gawai	01/12/2012
13	Mr. Unmesh M. Joshi	24/12/2009

Promotion Policy for Non-Teaching Staff

- Time bound promotions given to Non-Teaching Staff.
- Promotion to higher post through selection procedure.

Leaves and Vacations Policy

General Principle for granting leaves is to follow the guideline issued by University of SGBAU, Government of Maharashtra etc.



1. Continuous Service means a service rendered by an employee without any break under the same competent authority. Leave of any kind mentioned (as under Section 11.2) does not constitute to a break in service. The Management maintains a permanent record of leaves granted and used by each employee. The Institute functions on a six-day week basis running from Monday through Saturday.

2. Leaves can be broadly classified:

i) Casual Leave [CL]	ii) Medical Leave [ML]
iii) On-Duty Leave [DL]	iv) Maternity Leave [MA]/Paternity Leave [PA]
v) Compensatory Leave [CO]	vi) Study Leave [SL]
vii) Earned Leave [EL]	viii) Sabbatical Leave [SA]
ix) Special Leave [SP]	x) Leave Without Pay [LWP]

