OUTCOME BASED EDUCATION

Vision

To be the centre of excellence in pharmaceutical education and research, with global partnership and collaborations for students development from all sections of society as competent pharmacist and proficient entrepreneurs with social commitments and human values

Mission

To develop an evolving educational system with optimum infrastructure, competent and dedicated manpower, appropriate interaction with industries and institutes of high reputes, to generate globally competitive pharmacist as entrepreneurs, skilled-technocrats, researchers and health care professionals, to imbibe the philosophy of our founder and mentors for imparting scientific and secular value-added education for social transformation and national development.

Elements of Mission:

M1: To develop an evolving educational system with competent and dedicated manpower.

M2: To provide optimum infrastructure.

M3: Appropriate interaction with industries and institutes of high reputes.

M4: To generate globally competitive pharmacist as entrepreneurs, skilled-technocrats, researchers and healthcare professionals.

M5: To imbibe the philosophy of our founder and mentors for imparting scientific and secular value added education for social transformation and national development

Programs Offered:

BP000: Bachelor of Pharmacy

MP: Master of Pharmacy (Pharmaceutics)

MP: Master of Pharmacy (Pharmaceutical Chemistry)

MP: Master of Pharmacy (Quality Assurance) MP:

Master of Pharmacy (Pharmacology)

Program Educational Objectives:

- **PEO1:** To provide quality education leading to competent Pharmacy graduates and post graduates.
- **PEO2:** To promote the application of technological tools to develop trained human resource to meet the global pharmaceutical and healthcare needs.
- **PEO3:** To provide the fundamental and advanced applied knowledge to the budding pharmacist and researchers.
- **PEO4:** To inculcate entrepreneurship, professionalism and lifelong learning approach in the students.
- **PEO5:** To instil environment consciousness and ethical values in the students.

Alignment of PEO with Mission

PEO	M1	M2	M3	M4	M5
PEO1	H	M	H	H	H
PEO2	H	H	H	M	M
PEO3	H	H	H	H	M
PEO4	H	M	H	H	H
PEO5	M	S	M	M	H

The alignment is measured by analogue scale as: 1-Slight (Low), 2-Moderate (Medium), 3-Substantial (High).

Program Outcomes (PO): (For undergraduate Program- B.Pharm)

PO 01: 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.

PO 02: 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.

PO03: 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.

PO 04: Modern tool usage: Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy -related computing tools with an understanding of the limitations.

PO 05: Leadership skills: Understand and consider the human reaction to change, motivation issues, leadership and team -building when planning changes required for fulfilment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and wellbeing.

PO 06: 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).

PO 07: Pharmaceutical Ethics: Honour personal values and apply ethical principles in Professional and social contexts. Demonstrate behaviour 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.

PO 08: Communication: Communicate effectively with the pharmacy community and with society at large, such as, being able to comprehend an d write effective reports, make effective presentations and documentation, and give and receive clear instructions.

PO 09: 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.

PO 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.

PO 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-assess and use feedback effectively from others to identify learning needs and to satisfy these needs on an ongoing basis.

Alignment of PO with PEO

PO	PEO1	PEO2	PEO3	PEO4	PEO5
PO1	H	H	H	M	H
PO2	M	M	H	H	M
PO3	M	H	H	M	S
PO4	H	H	H	M	S
PO5	M	M	M	H	M
PO6	H	H	H	H	M
PO7	M	S	M	M	H
PO8	H	H	H	H	S
PO9	H	H	M	H	H
PO10	M	M	M	H	H
PO11	M	M	M	H	H

The alignment is measured by analogue scale as: 1-Slight (Low), 2-Moderate (Medium), 3- Substantial (High).

Program Outcome (PO) and Program Specific Outcomes (PSO) for Postgraduate programs:

PO 01: Ability to independently carry out research/ investigation and development work to solve practical problems.

PO 02: Ability to write and present a substantial technical report/ documents.

PO 03: Ability to demonstrate a degree of mastery over the area as per the specialization of the program.

PSO1: Ability to independently develop the business proposal in the specialized area.

PSO2: Ability to use software and technology in research analysis and product/ process design.

Alignment of PO, PSO with PEO

PO	PEO1	PEO2	PEO3	PEO4	PEO5
PO1	H	H	H	H	H
PO2	M	H	H	H	M
PO3	H	H	H	M	S
PSO1	M	H	H	H	S
PSO2	H	H	M	H	S

The alignment is measured by analogue scale as: 1-Slight (Low), 2-Moderate (Medium), 3- Substantial (High)

COURSE OUTCOMES FOR B. PHARM AND M.PHARM COURSES

Course Code: BP 101T	Human Anatomy & Physiology I
Code	**Course outcome**
CO 101.01	Impart the concept of basic life process and levels of structural organization and physiology of human body
CO 101.02	To correlate the concepts of homoeostasis and its significance with different systems
CO 101.03	To relate the pathological changes in various diseases.
CO 101.04	To build the skills for analysing neurological examination
CO 101.05	Make use of the acquired facts and relate them in treatment

Course Code: BP 102T	Pharmaceutical Analysis I
Code	**Course outcome**
CO 102.01	Understand the qualitative and quantitative estimation of chemical compounds
CO 102.02	Preparation and standardization of various standard solutions at different concentrations.
CO 102.03	Calibration of various glassware and equipment
CO 102.04	Quality check of various chemical compounds
CO 102.05	Knowledge of GLP and GMP in quality control lab.
CO 102.06	Understanding the methodology and principle of various types of titrations for estimation of drug content.

Course Code: BP 103T	Pharmaceutics-I
Code	**Course outcome**
CO 103.01	Ability to know the history of profession of pharmacy.
CO 103.02	Ability to understand the basics of different dosage forms, pharmaceutical incompatibilities and pharmaceutical calculations.
CO 103.03	Applying the professional way of handling the prescription.
CO 103.04	Understanding the factors affecting calculation of dose of medicine,how dose of any medicine is derived.
CO 103.05	Ability for preparing various conventional dosage forms.

Course Code: BP104T	Couse: Pharmaceutical Inorganic Chemistry
Code	**Course outcome**
CO 104.01	Explain impurities present in pharmaceuticals and preparation of organic compounds
CO 104.02	Write the properties and uses of inorganic pharmaceutical agents
CO 104.03	Summarize radioisotopes in diagnosis and therapeutics
CO 104.04	Explain applications of buffers, acids and bases in Pharmacy

Course Code: BP 105T	Course: Functional English & Communication Skills
Code	**Course outcome**
CO 105.01	Boost English Communication Skills.
CO 105.02	Develop and understand various styles of communication.
CO 105.03	Refine listening and active listening abilities, improve writing skill with proper English grammar.
CO 105.04	Develop and understand Interview and presentation skills.

Course Code: BP 201T	Human Anatomy and Physiology II
Code	**Course outcome**
CO 201.01	Impart the concept of basic life process and levels of structural organization and physiology of human body
CO 201.02	To correlate the concepts of homoeostasis and its significance with different systems
CO 201.03	To relate the pathological changes in various diseases.
CO201.04	To build the skills for estimation of haematological parameters and its significance
CO 201.05	Make use of the acquired facts and relate them in treatment

Course Code: BP 202T	Pharmaceutical Organic Chemistry I
Code	**Course outcome**
CO 202.01	Classify organic compounds and write their nomenclature
CO 202.02	Write the method for the preparation of organic compound
CO 202.03	Recite the physical properties, qualitative test & uses of the organic compound as per course
CO 202.04	Explain the organic reaction mechanism
CO 202.05	Summarize factors affecting the rate of reaction

Course Code: BP 203T	Biochemistry
Code	**Course outcome**
CO 203T.01	Describe processes taking place at molecular level inside living cells
CO 203T.02	Summarize the metabolic pathway of biomolecules
CO 203T.03	Classify biomolecules and write their structure
CO 203T.04	Explain enzymes and their role in metabolism

Course Code: BP 204T	Pathophysiology
Code	**Course outcome**
CO 204.01	Apply the basic knowledge of system physiology and their correlations with molecular, biochemical and cellular mechanism in disease state.
CO 204.02	Develop the ability to identify and diagnose disease conditions
CO 204.03	Outline and plan the problems for clinical manifestations in diseases
CO 204.04	Categorize the signs and symptoms of different diseases with respect to normal conditions of body.
CO 204.05	Utilization of knowledge for the prophylaxis measures of disease condition

Course Code: BP 205T	Computer Applications in Pharmacy
Code	**Course outcome**
CO 205.01	Ability to classify and use computers and identify various input and output devices
CO 205.02	Gain basic knowledge of various computer languages
CO 205.03	Ability to use Ms-word, Ms-excel, Ms-PowerPoint for creating documents, sheets and presentation
CO 205.04	Ability to operate Emails and browse Internet.

Course Code: BP 206T	Course: Environmental Science
Code	**Course outcome**
CO 206.01	Application of safe and proper use of chemicals, instruments and proper disposal of waste materials used during practice
CO 206.02	Appropriate utilization of electricity and other energy resources
CO 206.03	Discuss issues and aids towards public health care
CO 206.04	Use of safety measures and GLP, GMP in Extraction, isolation, synthesis, purification, identification, and/or standardization.
CO 206.05	Awareness about the role of individual in conservation of natural resources, biodiversity, prevention of pollution, public awareness in health care and human rights

Course Code: BP301T	Pharmaceutical Organic Chemistry II
Code	**Course outcome**
CO 301.01	Identify the structure and recite the reactions and mechanism of the compounds
CO 301.02	Compare the effects of substituent on acidity and basicity of compounds
CO 301.04	To synthesize, characterize and % yield of organic compounds
CO 301.05	Perform analysis of fats, oils and interpret the results

Course Code: BP 302T	Physical Pharmaceutics I
Code	**Course outcome**
CO 302.01	Describe the intra and intermolecular forces that are involved in stabilizing molecular and physical structures and pharmaceutical relevance of the different states of matter to drug delivery systems by reference to specific examples.
CO302.02	Explain the phase rule and describe its application to different systems containing multiple components
CO 302.03	Describe the thermodynamic properties of ideal and real solutions and its applications
CO 302.04	Describe the principle behind complexation and protein binding and describe its application
CO 302.05	Developed skills in procedures and instrumental methods applied in analytical and practical tasks of physical chemistry
CO 302.06	Understand the surface and interfacial phenomenon and application of it in development of stable formulation.
CO 302.07	Understand the importance of pH, buffer and maintenance of isotonicity in pharmaceutical preparations

Course Code: BP 303T	Pharmaceutical Microbiology
Code	**Course outcome**
CO 303.01	Identify the key growth parameters required by micro-organisms and how to identify bacteria and able to cultivation and preservation of various microorganisms.
CO 303.02	Describe the principles and commonly used methods of sterilization and disinfection used in the pharmaceutical industry and to plan out the protocols for sterility checkups in labs and in industries
CO 303.03	Describe laminar air flow technology used to prevent contamination of pharmaceutical parental and ophthalmic products and to focus on health care of common individual.
CO 303.04	Describes and explains Microbiological standardization of Pharmaceuticals and Environmental safety.
CO 303.05	Describe the causes and control of microbial spoilage of pharmaceutical products and understands and highlights cell culture technology and applications in pharmaceutical industries
CO 303.06	To study the importance of how to maintain environment safety by sterility checkup of Labs and Household process and lifelong learning process in day-to-day life while water and food analysis process.

Course Code: BP 304T	Pharmaceutical Engineering
Code	**Course outcome**
CO 304.01	Describe and explain the principles of fluid flow and its applications
CO 304.02	Describe and define the principles and methodology of various unit operation processes and its application in pharmaceutical industry
CO 304.03	Apply academic theory and knowledge to the solution of a real-life research, plant operational or management problem
CO 304.04	Ability to develop a comprehensive process flow diagram for a pharmaceutical process
CO 304.05	Ability to apply engineering principles to address issues in various pharmaceutical processes

Course Code: BP 401T	Pharmaceutical Organic Chemistry III
Code	**Course outcome**
CO 401.01	Explain stereochemistry of organic compounds
CO 401.02	Identify the heterocyclic ring and write their IUPAC nomenclature
CO 401.03	Describe the reaction and mechanism of heterocyclic compounds
CO 401.04	Elaborate the mechanism of oxidation and reduction organic reaction

Course Code: BP 402T	Pharmaceutical Medicinal Chemistry - I
Code	**Course outcome**
CO 402.01	Identify the medicinal compounds and Infer its IUPAC names
CO 402.02	Classify therapeutic agents & relate the structure with biological activity (SAR)
CO 402 .03	Summarize drugs receptor interaction, mode of action therapeutic uses and side effects of medicinal drugs.
CO 402 .04	Write the synthesis of medicinal compounds

Course Code: BP 403T	Physical Pharmaceutics II
Code: 403T	**Course outcome**
CO 403.01	Demonstrate the knowledge of rheology, micromertics and chemical kinetics
CO 403.02	Experiment with different laboratory instruments used in determination of viscosity, derived properties of powder
CO 403.03	Define fundamental principles, concepts in development of suspensions and emulsions
CO 403.04	Solving numerical related to viscosity, particle size, surface area, posrosity, density and order of reaction

CO 403.05	Applying the principles and concepts of colloidal chemistry in design of stable nano drug delivery system
CO 403.06	Apply the knowledge of accelerated stability studies in expiry dating of drug products
CO 403.07	Make use of fundamental principles in designing and evaluating dosage forms

Course Code: BP 404T	**Pharmacology I**
Code	**Course outcome**
CO 404.01	Describe the basic scientific concepts and principles of pharmacology & pharmacokinetics.
CO 404.02	Relate with pharmacodynamics, mechanism of action, adverse drug reactions, drug interactions, drug discovery & clinical evaluation of new drugs.
CO 404.03	Choose and plan the applications, mechanism of action, adverse drug reactions, drug interactions of drugs affecting Peripheral Nervous System
CO 404.04	Demonstrate and find the applications, mechanism of action, adverse drug reactions, drug interactions of drugs affecting Central Nervous System
CO 404.05	Explain the pharmacological and psychological effects of drugs acting n CNS, opioid analgesics & antagonists, drug addiction, drug abuse, tolerance and dependence.

Course Code: BP 405T	**Pharmacognosy and Phytochemistry I**
Code	**Course outcome**
CO 405 .01	Ability to use the techniques in the cultivation and production of crude drugs.
CO 405 . 02	Ability to know the crude drugs, their uses and chemical nature.
CO 405 . 03	Applying the techniques for evaluation of the herbal drugs.
CO 405 .04	Ability to carry out the microscopic and morphological evaluation of crude drugs.
CO 405 .05	Understanding and applying guidelines of WHO for evaluation of crude drugs.

Course Code: BP501T	**Medicinal Chemistry II**
Code	**Course outcome**
CO 501.01	Identify the medicinal compounds and Infer its IUPAC names
CO 501 02	Categories therapeutic agents & relate the structure with biological activity (SAR)
CO 501 03	Summarize drugs receptor interaction, mode of action therapeutic uses and side effects of medicinal drugs.
CO 501 04	Write the synthesis of medicinal compounds

Course Code: BP 502T	Formulative Pharmacy
Code	**Course outcome**
CO 502.01	Describe formulation principles, methodology and evaluation for various cosmetic preparation
CO 502.02	Formulate various dosage forms and differentiate them on the basis of advantages, disadvantages, route of administration, usability and methodology of manufacturing.
CO 502.03	List out raw materials and machinery requirement in manufacturing of different dosage forms.
CO 502.04	Select, use and operate testing process to evaluate various drug dosage forms.
CO 502.05	Explain the appropriateness of packaging material required in line to various dosage forms and knowledge about latest packaging trends.
CO 502.06	Structure out the labeling instructions as per official compendia's and list out examples of various official formulations.
CO 502.07	Appreciate the importance of GLP in manufacturing of dosage forms.

Course Code: BP 503T	Pharmacology II
Code	**Course outcome**
CO 503.01	Choose and plan the applications, mechanism of action, adverse drug reactions, and drug interactions of drugs affecting cardiovascular system.
CO 503.02	Demonstrate and find the applications, mechanism of action, adverse drug reactions, drug interactions of drugs affecting cardiovascular and urinary system
CO 503.03	Choose and plan the biosynthesis, applications, mechanism of action and drugs related to Autocoids.
CO 503.04	Demonstrate and find the applications, mechanism of action, adverse drug reactions, drug interactions of drugs affecting endocrine system.
CO 503.05	Explain the principles and applications with types of Bioassays.

Course code: BP 504T	Pharmacognosy and Photochemistry II
Code	**Course outcome**
CO504.01	Ability to know how the secondary metabolites are prepared in Plants
CO 504.02	Understanding Pharmacognostic account of medicinal plants
CO 504.03	Applying the knowledge of extraction and isolation of active principle responsible for Pharmacological action.
CO 504.04	Understand will apply modern analytical methods for estimation of phytoconstituents qualitatively and quantitatively and phytoconstituents for industrial production.
CO 504.05	Ability to know basics of Phytochemistry and latest methods and techniques in chromatography and spectroscopic analysis.

Course code: BP 505T	Pharmaceutical Jurisprudence
Code	**Course outcome**
CO. 505.01	Describe the significance and relevance of Pharmaceutical laws in India and role of Ethics in pharmacy profession while dealing with patients, public, fellow pharmacist and members of medical profession
CO.505.02	Ability to know various schedules and their applications in pharmacy as well as laws and penalties.
CO.505.03	Ability to apply and knowledge of various drug licenses, registration certificate, cancellation of licenses
CO. 505.04	Describe the Patent, process, advantage, essential documents with patent application amendments to Indian patent act
CO.505. 05	Explain the role of various Regulatory bodies like Advisory, analytical, executive bodies

Course Code: BP601T	Medicinal Chemistry III
Code	**Course outcome**
CO 601.01	Interpretation of IUPAC names of compounds
CO 601.02	To memorize the classification of all therapeutic classes and mechanism of action
CO 601.03	knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional pharmacy practice.
CO 601.04	Knowledge about receptor interaction of drugs with software
CO 601.05	Discovery and ability to develop novel drugs with receptor interaction of drugs in body

Course Code: BP 602	Pharmacology – III
Code	**Course outcome**
CO602.01	Choose and classify the range of medicines used for the effective treatment of Respiratory system and Gastrointestinal Tract.
CO602.02	Relate and translate the applications, mechanism of action, adverse drug reactions, drug interactions, contraindications of chemotherapeutic.
CO 02.03	Make use of the basic skill required to use of chemotherapeutic and Immunological agents.
CO602.04	Relate the scientific concepts of Toxicology and its management.
CO02.05	Summarize the basic scientific concepts and general principles of chronopharmacology.

Course Code: BP 603	Herbal Drug Technology
Code	**Course outcome**
CO 603.01	Learn to obtain raw material for preparing herbal formulations
CO 603.02	Implement good cultivation practices and tools therein in production of medicinal plants
CO 603.03	Apply principles of different traditional practices in modern practices as well as in formulation
CO 603.04	Learn about modern areas of herbal development like Nutraceuticals and their applications
CO 603.05	Know and able to apply knowledge of natural excipients in the preparation of herbal formulations and herbal cosmetics.
CO 603.06	Know main aspects as well as regulatory aspects of herbal industry

Couse Code: BP604T	Biopharmaceuitcs and Pharmacokinetics
Code	**Course outcome**
CO 604.01	Define and describe the basic principles of biopharmaceutics and pharmacokinetics
CO 604.02	Define, describe and explain various mechanism of drug absorption, distribution, biotransformation, excretion and various factors affecting it.
CO 604.03	Interpret plasma drug concentration measurement by application of compartment and non compartmental model and plan strategy for good patient care based on the pharmacokinetic data.
CO 604.04	Assess the Biopharmaceutics and Pharmacokinetics and their role in formulation development and clinical setting.
CO 604.05	Describe the concept of bioavailability and bioequivalence and apply its concept in assessing bioequivalence of the drug product.

Couse Code: BP605T	Pharmaceutical Biotechnology
Code	**Course outcome**
CO 605.01	Explain the basic principles and, the tools and techniques of Genetic engineering and its applications.
CO 605.02	Describe the applications of genetic engineering in various fields.
CO 605.03	Illustrate the various aspects of Biotechnological applications in Fermentation Industries.
CO 605.04	Integrate scientific and technological knowledge on the use of bioprocesses for industrial products
CO 605.05	Describe the importance of engineering animal cells for the production of therapeutic proteins

Couse Code: BP606T	Course: Quality Assurance
Code	**Course outcome**
CO 606.01	Ability to understand and apply cGMP principles in a pharmaceutical industry.
CO 606.02	Appreciate value of Total Quality Management and QbD for Pharma industry.
CO 606.03	Explain various regulatory guidelines such as ICH, GLP, GWP and their implementation.
CO 606.04	Ability to address complaints and produce documents like SOPs, Audit reports, Batch Formula Record, Master Formula records, distribution records etc.
CO 606.05	Appreciate quality certifications applicable to pharmaceutical industries including ISO , NABL.
CO606.06	Describe analytical tests, calibration and validation.

Course Code: BP701T	Instrumental Method of Analysis
Course Code	**Course outcome**
CO701T.01	Recall and relate the principle of spectroscopy, chromatography and other commonly used instrumental methods of analysis.
CO 701T.02	Illustrate skills of operation, calibration and inference of results of instruments such as nephalo-turbidimeter, fluorimeter, flame photometer, UV-visible spectrophotometer, and FTIR spectrophotometer.
CO701T.03	Plan and select lab experiments using appropriate analytical skills and generate a comprehensive analytical report on the findings.
CO 701T.04	Construct documentation and interpretation of analytical data
CO 701T.05	Solve numericals related to UV- Vis and IR spectroscopy

Course Code: BP702T	Industrial Pharmacy
Course Code	**Course outcome**
CO 702.01	Explain the pilot Plant Scale Up Techniques in industries and various aspects of quality control and quality assurance aspects of pharmaceutical industries.
CO 702.03	Understand the scope of quality certifications applicable to pharmaceutical industries .
CO 702.04	Understand the principle involved in formulation of various pharmaceutical dosage forms
CO 702.05	Understand the responsibilities of Regulatory Affairs department
CO702.06	Describe the drug regulatory approval process for investigational new drug, new drug and abbreviated new drug.
CO 702.07	Understand Quality Management System and ISO certification.
CO 702.08	Describe Technology Development and Transfer.

Course Code: BP 703T	Pharmacy Practice
Code	**Course outcome**
CO 703.01	To understand hospital and its organization, hospital pharmacy and it's organization, To understand adverse drug reaction reporting and management.
CO703 .02	To understand drug interactions and their methods of detection, community pharmacy setup, drug store management and inventory control, interpretation of clinical laboratory tests.
CO703 .03	To understand the drug distribution system in a hospital, community pharmacy management, patient medication history interview, medication adherence,
CO703 .04	To understand therapeutic drug monitoring, hospital formulary, drug distribution system in a hospital, prescribed medication order and communication skills, education and training program in the hospital, patient counselling.
CO703 .05	To understand, to provide information services, functions in a pharmacy and therapeutic committee, budget preparation and implementation, clinical pharmacy, over the counter (OTC) sales.

Course Code: BP 704T	Novel Drug Delivery System
Code	**Course outcome**
CO 704.01	Ability to understand different concepts in Novel drug delivery systems. Selection of appropriate polymers and API for formulations
CO 704.02	Research ability in formulation of Microencapsulation, Mucosal & Implantable drug delivery system
CO 704.03	Understanding the novel dosage forms in Transdermal, Gastroretentive & nasopulmonary Systems
CO704.04	Exploration of targeted drug delivery
CO704.05	Exploration of targeting delivery of drugs by the ocular & IUD approach. ability for research in the field of advanced drug delivery and innovative

Course Code:BP 801T	Biostatistics and Research Methodology
Code	**Course outcome**
CO 801.01	Ability to use statistical techniques in solving the problem.
CO 801.02	Ability to produce and interpret numerical summary statistics
CO 801.03	Applying the various principals for data collection.
CO 801.04	Ability to use statistical software for analyzing the statistical data.
CO 801.05	Explain and apply principles for Design of Experiments
CO801.06	Ability to produce and interpret graphical summaries of data and Use of various statistical operation in M.S. Excel

Couse Code: BP 802T	Social and Preventive Pharmacy
Code	**Course outcome**
CO 802.01	Describe and explain the Concept of health and disease: Definition, concepts and evaluation of public health.
	Understanding the concept of prevention and control of disease, social causes of diseases and social problems of the sick
	Social and health education: Food in relation to nutrition and health, Balanced diet, Nutritional deficiencies, Vitamin deficiencies, Malnutrition and its prevention.
	Sociology and health: Socio cultural factors related to health and disease, Impact of urbanization on health and disease, Poverty and health
	Hygiene and health: personal hygiene and health care; avoidable habits
CO 802.02	Describe and define the Preventive medicine: General principles of prevention and control of diseases such as cholera, SARS, Ebola virus, influenza, acute respiratory infections, malaria, chicken guinea, dengue, lymphatic filariasis, pneumonia, hypertension, diabetes mellitus, cancer, drug addiction-drug substance abuse
CO 802.03	Describe and define National health programs, its objectives, functioning and outcome of the following:
CO 802.04	Describe and explain National health intervention Programme for mother and child, National family welfare Programme, National tobacco control Programme, National Malaria Prevention Program,
	National Programme for the health care for the elderly, Social Health Programme; role of WHO in Indian national Programme
CO 802.05	Describe and explain Community services in rural, urban and school health: Functions of PHC, Improvement in rural sanitation, national urban health mission, Health promotion and education in school.

Course Code: BP 803ET	Pharmaceutical Marketing
Code	**Course outcome**
CO803ET.01	Understanding of concept , basic principles and ethics of Pharmaceutical Marketing
CO 03ET.02	To develop ability to analyze customer behavior and Market research.
CO803ET.03	Application of knowledge to select target customer and to take appropriate product decision.
CO803ET.04	Develop modern tools, communication skills, Planning skills and leadership skills so as to become successful marketing professional.
CO803ET.05	To understand need of the society with respect to pharmaceutical Products and understand rural marketing and Global Marketing.
CO 03ET.06	To create learning skills with changed market scenario

Pharmaceutics

Course Code: MPH 102T	Drug Delivery Systems
Code	**Course outcome**
CO 102.01	Apply the knowledge for pre-formulation studies of various formulations.
CO 102.02	Understand and apply the optimization techniques and statistics in formulation research.
CO 102.03	Ability to professionally manage various activities in industry
CO 102.04	To understand various concepts and principal in dosage form design
CO 102.05	Ability to validate various processes in pharmaceutical industry

Course Code: MPH 103T	Modern Pharmaceutics
Code	**Course outcome**
CO 103.01	Apply the knowledge for pre-formulation studies of various formulations.
CO 103.02	Understand and apply the optimization techniques and statistics in formulation research.
CO 103.03	Ability to professionally manage various activities in industry
CO 103.04	To understand various concepts and principal in dosage form design
CO 103.05	Ability to validate various processes in pharmaceutical industry

Course Code: MPH 104T	Regulatory Affair
Code	**Course outcome**
CO 104.01	Ability to prepare documentation as per regulatory requirement of various regulatory bodies
CO 104.02	Application of various regulations and guidelines prepared by vari0us agencies in research, quality assurance and marketing approval process of pharmaceutical products.
CO 104.03	Knowledge about ICH guidelines NDA, ANDA, CTD and e.CTD.
CO 104.04	Ability to understand and draft clinical trial protocols.

Pharmaceutical Chemistry

Course Code: MPC 102T	Advanced Organic Chemistry -I
Code	**Course outcome**
CO 102.01	Explain the applications of protecting and deprotecting groups
CO 102.02	Write mechanism & applications of named reactions

CO 102.03	Apply the concept of disconnection to develop synthetic routes for small molecule
CO 102.04	Explain and summarize the chemistry of heterocyclic compounds

Course Code: MPC 103T	**Advanced Medicinal chemistry**
Code	**Course outcome**
CO 103.01	Describe Stages of drug discovery and Biological drug targets
CO 103.02	Demonstrate Prodrug Design and Analog design
CO 103.03	Relate Systematic study, SAR, Mechanism of action and synthesis of New generation molecules
CO 102.04	Explain detailed concepts of Rational Design of Enzyme Inhibitors.
CO 103.04	Elaborate Therapeutic values of Peptidomimetics and design of Peptidomimetics.

Course Code: MPC 104T	**Chemistry of Natural Products**
Code	**Course outcome**
CO 104.01	Describe the chemistry of medicinal compounds from plant origin and Recombinant DNA Technology products.
CO 104.02	Elucidate the structure of medicinally active natural compounds
CO 104.03	Characterize medicinally active natural compounds by physical and spectroscopic methods
CO 104.04	Outline the synthetic plan for the phytoconstituents

Pharmaceutical Quality Assurance

Course Code: MQA 102T	**Quality Management System**
Code	**Course outcome**
CO 102.01	Define and understand the concept of quality, cost involved in quality and keys to customer satisfaction
CO 102.02	Discuss strategic planning for quality and implementation of quality systems
CO 102.03	Explain the concept of quality system, quality management and ISO quality management standards
CO 102.04	Learn different ICH guidelines related to Stability testing and quality risk management
CO 102.05	Describe the concept of statistical process control and benchmarking in pharmaceutical manufacturing

Course Code: MQA 103T	Quality Control and Quality Assurance
Code	**Course outcome**
CO 103.01	Ability to understand and apply Quality management system , regulatory guidelines and tools in a pharmaceutical industry.
CO 103.02	Quality control evaluation of materials
CO 103.03	Ability to address manufacturing operation and control over post manufacturing operations

Course Code: MQA 104T	Product Development and Technology Transfer
Code	**Course outcome**
CO 104.01	Explain the concepts of drug discovery and new product development process.
CO 104.02	Discuss product registration guidelines in India & United States of America.
CO 104.03	Describe Pilot plant scale-up of Pharmaceuticals.
CO 104.04	Explain Pharmaceutical dosage form and their packaging requirements.
CO 104.05	Describe the necessary information to transfer technology from R&D

Pharmacology

Course Code: MPL 102T	Advanced Pharmacology-I
Code	**Course outcome**
CO 102.01	Gain the knowledge of Pharmacokinetics and Pharmacodynamics mechanism and able to correlate it with the effects of drug.
CO 102.02	Understand the role of neurochemicals in drug treatment
CO 102.03	Explain the Molecular and cellular mechanism of the drugs acting on CNS and CVS.
CO 102.04	Understand the physiological and pathological role of Autocoids
CO 102.05	Describe the pharmacology of drugs acting on CNS and CVS with emphasis on recent trends and advances in the drugs action.

Course Code: MPL 103T	Pharmacological and Toxicological Screening Methods-I
Code	**Course outcome**
CO 103.01	Discuss the experimental animal handling, production, guidelines and good laboratory practice.
CO 103.02	Demonstrate various screening models used for Central Nervous System acting drugs.

CO 103.03	Demonstrate various screening models used for drugs acting on respiratory, reproductive, analgesics, anti-inflammatory and Gastrointestinal drugs.
CO 103.04	Demonstrate various screening models used for drugs acting on cardiovascular system, metabolic disorders and cancer.
CO 103.05	Demonstrate various screening models used for drugs acting on Immune system, immunoassay methods evaluation, limitation to animal experimentation and alternate animal experiments, extrapolation of invitro data to preclinical to humans.

Course Code: MPL 104T	**Cellular and Molecular Pharmacology**
Code	**Course outcome**
CO-104.1	Describe Cell biology, genome organization, cell cycles and cell death.
CO-104.2	Demonstrate and find Cell signaling pathways and second messenger systems.
CO-104.3	Relate with principles and applications of genomic and proteomic tools, recombinant DNA technology and gene therapy.
CO-104.4	Explain detailed concepts of Pharmacogenomics and immunotherapeutics.
CO-104.5	Elaborate Cell culture techniques and biosimilars.

Course Code: MPC 101T,MPH 101T,MPL 101T, MQA101T	**Modern Pharmaceutical Analytical Techniques**
Code	**Course outcome**
CO 101.01	Explain the advance methods of analysis of pharmaceuticals
CO 101.02	Select appropriate analytical technique for a given analytical problem
CO 101.03	Corelate analytical data with quantitative analytical result
CO 101.04	Interprete spectroscopic date and propose structure features present in compound

PHARMACEUTICS

Course Code: MPH 201T	**Molecular Pharmaceutics (Nano Tech and Targeted DDS)**
Code	**Course outcome**
CO 201.01	To remember, understand, apply the Concepts, Events and biological processinvolved in drug targeting, tumor and Brain targeting
CO 201.02	To analyse various methods of targeting. Apply for the preparation & evaluation of Nano Particles, Liposomes andNiosomes.
CO 201.03	Apply, analyse and evaluate the Microspheres, Aquasomes, Phytosomes, Electrosomes.
CO 201.04	To remember and understand the various methods of aerosol fillings, components for pulmonary and nasal dosage forms and its evaluation thereof.

CO 201.05	Remember the importance of Gene therapy, and understand the potential target diseases for gene therapy and its expression

Course Code: MPH 202T	**Advanced Biopharmaceutics & Pharmacokinetics**
Code	**Course outcome**
CO 202.01	Define, describe and explain various mechanism of drug absorption, various factors affecting it and correlation of in vivo data with in vitro dissolution.
CO 202.02	Understand biopharmaceutics consideration in designing of drug product and in vitro product performance.
CO 202.03	Interpret plasma drug concentration measurement by application of compartment and non compartmental model and plan strategy for good patient care based on the pharmacokinetic data
CO 202.04	Describe the concept of bioavailability and bioequivalence and apply its concept in assessing bioequivalence of the drug product.
CO 202.05	Apply the knowledge of biopharmaceutics and pharmacokinetics in novel and biotechnological product development and understand the basics of drug interactions and pharmacokinetic and pharmacodynamics of drugs.

Course Code: MPH 203T	**Computer Aided Drug Delivery System**
Code	**Course outcome**
CO 203.01	Ability to comprehend the concept of QbD and computer aided formulation development and the ethics of computing.
CO 203.02	Application of computers in Pharmaceutical Research and Devlopment and Market Analysis
CO 203.03	Knowledge about Computer aided modelling in drug disposition, clinical research , biopharmaceutics and computer simulations in Pharmacokinetics and Pharamcodynamics.
CO 203.04	Ability to understand pharmaceutical applications of pharmaceutical intelligence(AI), Robotics and Computational Fluid dynamics.

Course Code: MPH 204T	**Cosmetic and Cosmeceuticals**
Code	**Course outcome**
CO 204.01	Apply the knowledge for pre-formulation studies to cosmetic formulations.
CO 204.02	Understanding of various regulatory aspects of cosmetics manufacturing, Export and Import and sales.
CO 204.03	Ability of designing and formulations of cosmetics
CO 204.04	To understand various concepts and principal in Design of cosmeceuticals

Pharmaceutical Chemistry

Course Code: MPC 201T	Advanced Spectral Analysis
Code	**Course outcome**
CO 201.01	Explain the applications of analytical techniques in pharmaceuticals
CO 201.02	Select appropriate analytical technique for a given analytical problem
CO 201.03	Describe thermal method of analysis, radioimmuno assay and their applications
CO 201.04	Interprete spectroscopic date and propose structure features present in compound

Course Code: MPC 202T	Advanced Organic Chemistry -II
Code	**Course outcome**
CO 202.01	Explain the applications of green chemistry
CO 202.02	Write mechanism & applications of photocyclic and pericyclic reaction
CO 202.03	Apply the concept of stereochemistry, asymmetric synthesis in medicinal chemistry
CO 202.04	Write the application of catalysts in organic reactions

Course Code: MPC 203T	Computer Aided Drug Design
Code	**Course outcome**
CO 203.01	Describe techniques and applications Quantitative Structure Activity Relationships
CO 203.02	Demonstrate QSAR, 3D-QSAR, contour map analysis and Statistical methods used in QSAR
CO 203.03	Relate Molecular Modeling, Docking and drug receptor interactions with drug
CO 203.04	Explain Molecular Properties, Drug Design concepts. Ppredict and analysed ADMET.
CO 203.05	Elaborate Pharmacophore Mapping and Virtual Screening.

Course Code: MPC 204T	Pharmaceutical Process Chemistry
Code	**Course outcome**
CO 204.01	Differentiate between unit operation and unit process of API industry
CO 204.02	Design the synthetic routes for organic compounds involving unit process reaction
CO 204.03	Explain the strategies of scale up process of API's & intermediates including impurities in API.
CO 204.04	Understand industrial safety measure, possible hazards, health and safety assessments.

Pharmaceutical Quality Assurance

Course Code: MQA 201T	Hazards and Safety Management
Code	**Course outcome**
CO 201T	Define and understand the concept of ecosystem and environmental hazards
CO 202T	Describe different air based hazards and chemical hazards, their control and regulation
CO 203T	Explain different fire protection systems and the management of fire in industry
CO 204T	Learn different ICH guidelines related to risk assessment and quality risk management

Course Code: MQA 202T	Pharmaceutical Validation
Code	**Course outcome**
CO-1	Discuss about the concept and types of validation
CO-2	Demonstrate qualification and calibration of instruments and equipment.
CO-3	Explain the concepts of process validation of dosage forms.
CO-4	Explain the procedure of analytical method validation and cleaning validation.
CO-5	Discuss the concepts of Intellectual Property Rights.

Course Code: MQA 203T	Audits and Regulatory Compliance
Code	Course outcome
CO 203.1	Discuss briefly about audit objectives and their management
CO 203.2	Understand the role of quality systems and audits in pharmaceutical manufacturing environment
CO 203.3	Frame a checklist for auditing pharmaceutical industries and learn about audit report
CO 203.4	Understand the basics of auditing various engineering systems in a manufacturing plant
CO 203.5	Learn the requirements for auditing vendors supplying various materials and equipment's

Course Code: MQA 204T	Pharmaceutical Manufacturing Technology
Code	**Course outcome**
C0 204.01	Able to Interpret and apply knowledge in regulatory requirements, production planning and operations for manufacturing of product in a pharmaceutical industry.

C0 204.02	Able to relate to technological advances and automation in manufacturing operations and packaging science.
C0 204.03	Able to appreciate and implement concept of Quality by design (QbD) and process analytical technology (PAT) in pharmaceutical manufacturing

Pharmacology

Course Code: MPL 201T	Advanced Pharmacology II
Code	**Course outcome**
CO201.01	Gain the knowledge of Pharmacokinetics and Pharmacodynamics mechanism and able to correlate it with the effects of drug.
CO201.02	Understand the Molecular and cellular mechanism of action of hormones
CO201.03	Explain the Molecular and cellular mechanism and its pharmacology of the drugs used in management of various types of infections and cancer chemotherapy.
CO201.04	Understand the role of free radicals in etiopathology of various diseases
CO201.05	Describe the pharmacology of drugs acting on GIT with emphasis on recent trends and advances in the drugs action.

Course Code: MPL 202T	Pharmacological and Toxicological Screening Methods-II
Code	**Course outcome**
CO 202.01	Discuss the various regulatory guidelines for toxicity studies and good laboratory practice.
CO 202.02	Demonstrate various toxicity studies as per the OECD guidelines.
CO 202.03	Demonstrate various advanced toxicity studies such as reproductive, teratogenicity, genotoxicity and carcinogenicity.
CO 202.04	Demonstrate various IND studies needed for IND submission, safety pharmacological studies (Tier 1 and Tier 2 studies).
CO 202.05	Demonstrate various Toxicokinetic studies, their importance and application. Demonstrate alternative methods to animal toxicity testing.

Course Code: MPL 203T	Principles of Drug Discovery
Code	**Course outcome**
CO 203.01	To provide students with an understanding of the process of drug discovery and development from the identification of novel drug targets
CO 203.02	Demonstrate and find new drugs into clinical practice.
CO 203.03	Relate with principles and applications of genomic and proteomic tools.
CO 203.04	Explain detailed concepts of computer aided drug design in drug discovery process.
CO 203.05	Elaborate the techniques in computer aided drug design in drug discovery.

Course Code: MPL 204T	Clinical Research and Pharmacovigilance
Code	**Course outcome**
CO-204.1	Describe regulatory perspectives of clinical trials, informed consent process.
CO-204.2	Illustrate Clinical Trials: Types and Design.
CO-204.3	Determine and find Clinical Trial Documentation and Adverse Drug Reactions.
CO-204.4	Explain detailed concepts of Basic aspects, terminologies and establishment of
CO 203.05	pharmacovigilance.

Course Code: MRM 301 T	Research Methodology & Biostatistics
Code	**Course outcome**
CO301.01	To understand basic concept and methodology of research
CO301.02	Ability to use statistical techniques in data interpretation and analysis.
CO301.03	To understand various ethical aspects in Medical Research
CO301.04	To create appropriate research design
CO 301.05	To apply standard Operating Procedures for medical research

CALCULATION OF ATTAINMENT OF COURSE OUTCOME

The Institution has a set method of measuring program outcomes, program specific outcomes and course outcomes that ultimately improves the education quality of the college and graduate outcome. This is attained by taking inputs from the faculty, Student, Alumni, Industry and professional bodies linking into the positive outcomes.

The Attainment is calculated by direct and indirect methods.

Direct method:

- Initially the listed program outcomes and course outcomes are gathered for different courses
- The target levels are set.
- Calculations are done for attainment of course outcomes to program outcomes.
- Each CO is mapped to PO to make a (CO PO) matrix.

The Attainment of course outcome is calculated by using the following formula;

Attainment of Course = 80% (Attainment Level in end term exam) + 20% (Attainment Level in Internal exam)

And this method is, evaluating the attainment of COs by using student's marks, where the student marks consists of final exam and internal sessional exam.

The attainment level for course outcome are defined as follows:

Level 1: 40% students scored more than university average.

Level 2:50% students scored more than university average.

Level 3: 60% students scored more than university average.

CALCULATION OF ATTAINMENT OF PROGRAM OUTCOME

CO-PO matrix is generated for each individual course and the Program Attainment is calculated . Calculations are done for attainment of course outcomes to program outcomes. Each CO is mapped to PO to make a CO-PO matrix. The mapping is done at three levels. The alignment is measeured by analogue scale as : 1-Sligh (Low); 2-Moderate (Medium); 3- Substantial (High)

Course Code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO101.01	M		S			M					M
CO101.02	M		S			S			S		M
CO101.03	M	S	S	S		S					M
CO101.04	M	S	M								M
CO101.05	M		S	S		S			S		M

Course code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
102CO.01	H									M	
102CO.02	H			M							
102CO.03	H										
102CO.04	H		M			S					
102CO.05	S		M			S				M	
102CO.06	M		M	M							

Course Code (CO)			PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
103.01	H	H	H	H	M	M	H	H	H	H	H
103.02	H	H	H	H	M	M	H	H	H	H	H
103.03	H	H	H	H	M	M	H	H	H	H	H
103.04	H	H	H	H	M	M	H	H	H	H	H

Course code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO 104.01	H	S	S	--	-	S	M	M	S	S	M
CO 104.02	H	S	S	-	-	S	S	M	S	M	M
CO 104.03	H	S	S	H	-	M	S	M	S	H	M
CO 104.04	H	M	S	-	-	S	S	M	M	M	M
Course code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO 105.01	H				S	H	M	H	H		H
CO 105.02	H	M			H	H	M	H	M		H
CO 105.03	H		S		M	H	H	H	H		H
CO 105.04	H		S		H	H	M	H	M		H
CO 105.05	H		S		M	H	H	H	M		H

Course code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO201.01	M					S					M
CO201.02	M					S			S		M
CO201.03	S		S	S		S					S
CO201.04	M	S	S			__					M
CO201.05	M		S	S		S			S		M

(CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11
CO 202.01	H		H	L	L		L	L		M	M
CO 202.02	H	H	M	M				L	L		M
CO 202.03	L	H	L	L	M			L	L	L	M
CO 202.04	M		M	M	L	M	L	L	H	H	M
CO 202.05	H	M	M	H		L		L	L	L	M

CO Code	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO 203.01	H	M	M	S	--	S	S	--	S	S	S
CO 203.02	H	M	M	S	S	M	S	S	H	M	M
CO 203.03	H	M	M	S	---	M	M	S	H	M	M
CO 203.04	H	M	M	M	--	H	M	--	H	M	S

Course code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO204.01	H	-	-	S	-	H	-	-	-	-	-
CO 204.02	H	-	M	-	-	M	-	S	S	-	-
CO 204.03	H	M	-	-	-	S	-	S	-	-	-
CO 204.04	H	-	S	-	-	S	S	M	-	-	M
CO 204.05	H	-	-	-	-	S	-	M	S	M	H
Course code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO206.01			M		S	S				H	H
CO 206.02			M		S					H	H
CO 206.03			M		S	S	H			H	H
CO 206.04			M		S					H	H
CO 206.05			M		S	S			H	H	H

Course code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO 301.01	H		M					S		S	M
CO 301.02	M		H					S			M
CO 301.03	H		M		S			M			S
CO 301.04	H	H	M	H	M			S	M	S	M
CO 301.05	M	H	M	H	M			S	M	S	M

Course code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO 302.01	H		M	M					M	S	M
CO302.02	H		M	M					M	S	M
CO 302.03	H		M	M		M			M	S	M
CO 302.04	H		M	M		S			M	S	M
CO 302.05	H	S	M	H		-			M	S	M
CO 302.06	H	-	M	M		M			M	S	M
CO 302.07	H	S	M	M		M			M	S	M

Course Code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO303.01		S	M	S	--	S	S	--	S	S	S
CO303.02	M	S	M	S	S	M	S	S	M	M	M
CO303.03	S	S	M	S	---	M	M	S	M	M	M
CO303.04	S	S	M	M	--	S	M	--	3	M	S
CO303.05	M	S	S	H	--	M	M	S	M	M	M
CO303.06	M	M	M	M	--	M	M	S	M	M	H

Course code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO401.01	H	S	H	M		M			H	M	H
CO401.02	M	S	M	H		S			S		H
CO401.03	M	S	S	M					S	M	M
CO401.04	M	S	S	S				S	S	S	M

Course Code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO402.01	H	M	H	S	S	S	S	M	S	S	M
CO402.02	H	M	H	S	S	S	S	M	S	S	M
CO402.03	H	M	S	M	S	S	S	M	S	S	M
CO402.04	H	M	M	H	S	-	S	M	S	S	M

Course code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO403.01	H	--	--	---	S	---	----	----	----	M	M
CO403.02	H	--	H	H	---	---	S	M	----	M	H
CO403.03	H	--	H	H	----	---	S	M	----	H	H
CO403.04	H	H	H	H	M	S	S	M	----	H	H
CO403.05	H	--	H	H	--	--	--	--	S	H	S
CO403.06	H	--	H	S	--	--	--	H	H	H	S
CO403.07	H	M	M	M	M	M	M	M	M	M	M

Course code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO404.01	H	-	-	-	-	H	-	-	H	-	H
CO404.02	H	M	-	H	-	H	M	-	H	H	H
CO404.03	H	-	S	-	-	H	-	-	H	-	H
CO404.04	H	-	S	-	-	H	-	-	H	-	H
CO404.05	H	-	S	-	-	H	-	-	H	-	H

Course Code(CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO405.01	H	H	H	H			H		H	H	H
CO405.02	H	M	H	H			H		H	H	H
CO405.03	H	H	H	H			H		H	H	H
CO405.04	H	H	H	H	M	M	H		H	H	H

CO Code	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO501.01	H	S	H	S	M	M	M	S	S	M	
CO501.02	H	H	H	S	S	S	M	S	S	M	S
CO501.03	H	H	S	H	M	S	S	H	H	M	H
CO501.04	H	H	H	H	H		M	M	M	M	S

CO Code	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO 502.01	H				S					M	M
CO 502.02	H		H	H			S	M		M	H
CO 502.03	H		H	H			S	M		H	H
CO 502.04	H	H	H	H	M	S	S	M		H	H
CO 502.05	H		H	H					S	H	S
CO 502.06	H		H	S				H	H	H	S
CO 502.07	H	M	M	M	M	M	M	M	M	M	M

CO Code	**Program Outcome (PO)**										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO503.01	H					H			H		H
CO503.02	H					H			H		H
CO503.03	H	S	S			H			H		H
CO503.04	H					H			H		H
CO503.05	H	M	M	H		H	M		H	M	H

CO Code	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
504.01	M	M	M	M			S		S	M	S
504.02	H	M	M	H		S	S		S	H	S
504.03	H	H	M	H	S		S				S
504.04	H	M	S	M						M	M
504.05	H	S	S	H	M				S	M	S

Course code (CO)	Program Outcome										
	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO505.01	M					S	H		M		M
CO505.02	H					M	H		M		M
CO505.03	H		S	S		M	H		M	S	H
CO505.04	H	H	M	M			H		M		S
CO505.05	M		M		S	S	H		S		H

Course code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO601.01	H	L	H	L	M	M	M	L	L	M	
CO601.02	H	H	H	L	L	L	M	L	L	M	L
CO601.03	H	M	L	H	M	L	L	H	H	L	H
CO601.04	H	M	H	L	M		M	L	L	M	
CO601.05	L	M	L	M	H	L	M	L	L		

CO Code	**Program Outcome (PO)**										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO602.01	H					H			H		H
CO602.02	H	M		H		H	M		H	H	H
CO602.03	H		S			H			H		H
CO602.04	H		S			H			H		H
CO602.05	H		S			H			H		H

Course Code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO603 1	H	M	M	H			S		S	M	S
CO603 2	H	M	M	H		S	S		S	H	S
CO603 3	H		M	H			S				S
CO603 4	H		S	M							S
CO603 5	H	S	S	H							S
CO603 6	H		M	S		S	S		H	S	S

Course Code (CO)	**Program Outcome (PO)**										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO604.01	H		M	S					M	S	M
CO604.02	H		M	M					M	S	M
CO604.03	H		M	M		M			M	S	M
CO604.04	H		M	M		S			M	S	M
CO604.05	H	S	M	H		-			M	S	M

	Program Outcome (PO)										
CO Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO605.01	H		H	H			S	M		M	H
CO605.02	H		H	H			S	M		H	H
CO605.03	H		H	S				H	H	H	S
CO605.04	H	M	M	M	M	M	M	M	M	M	M
CO605.05	H		H	H					S	H	S

CO Code	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO606.01	H	H	H	M	M	H	H	S	H	S	S
CO606.02	M	H	H	H	H	H	H	H	H	M	H
CO606.03	M	H	H	M	S	M	S	H	H	M	M
CO606.04	H	H	M	M	M	H	H	H	S	S	S
CO606.05	M	H	M	M	M	H	H	M	S	H	M
CO606.06	H	H	H	H					S	S	S

Course code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO701.01	H	M	H	H	S	S	S	M	H	H	H
CO701.02	H	M	H	H	S	S		S	H	H	H
CO701.03	H	H	H	S	H	H	H	M	H	H	H
CO701.04	H	H	H	S	H	H	H	M	H	H	H
CO701.05	H	H	H	M	H	H	S	S	H	H	H

Course code (CO)	Program Outcome (PO)										
CO Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO702.01	H				S					M	M
CO702.02	H		H	H			S	M		M	H
CO702.03	H		H	H			S	M		H	H
CO702.04	H	H	H	H	M	S	S	M		H	H
CO702.05	H		H	H					S	H	M
CO702.06	H		H	S				H	H	H	S
CO702.07	H	M	M	M	M	M	M	M	M	M	M
CO702.08	H	H	H	H	H	S	S	S			M

Course code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO703.01	H	-	H	H	H	H	H	H	H	H	H
CO703.02	H	H	H	H	H	H	H	H	H	H	H
CO703.03	H	H	H	S	M	H	H	H	H	S	H
CO703.04	H		H	S	H	H	H	H	H	H	H
CO703.05	H	H	H	H	H	H	H	H	H	H	H
CO703.06	H		M	M	H	H	H	H	H	H	H
CO703.07	H	H	H	S	M	H	H	H	H	H	H
CO703.08	H	H	H	H	H	H	H	H	H	H	H

Course Code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO704.01	H	M	H	H	S	M	S	S	M	S	S
CO704.02	S	S	M	M	S	S	S	M	M	S	S
CO704.03	H	S	M	M	S	S	S	S	S	S	S
CO704.04	H	S	H	M	S	M	M	M	H	M	M

Course code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO801.01		M	H	H	L			H	M		H
CO801.02	L	H	H	H		L			L		H
CO801.03	H	H	H	H				M			H
CO801.04	H	H	H	H				M		H	H
CO801.05	L	H	H	H	H		M	H	M	H	H
CO801.06		H	H	H	M		M	M	M		H

Course Code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO802.01	H	M	M	S	H	-	S	M		H	M
CO802.02	M	H	S	S	M	S		M	S	M	H
CO802.03	S	M	M	M	S	M		H		S	M
CO802.04	M	H	S	S	M	S	M	M	S	M	H
CO802.05	S	M	M	M	S	M		H		S	M

Course code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO803.01	H	M	H	S	S	H	H	M	H	S	H
CO803.02	H	H	H	S	M	S	S	M	H	S	H
CO803.03	H	M	M	M	S	M	S	M	M		H
CO803.04	M	H	S	H	H	S	M	H	H	S	H
CO803.05	M		M	S	M	M	S	H	H	H	M
CO803.06	S	M	S	S	S	M	M	M	S	M	H

Course Code (CO)	Program Outcome (PO)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO811.01	H		M							M	M
CO811.02	H		M	M							M
CO811.03	H		H								M
CO811.04	H										M
CO811.05	H		S	H						M	M
CO811.06	H		S								M

Course Code (CO)	Program Outcome (PO)				
	PO1	PO2	Po3	PSO1	PSO2
COS1MPH1.01	H		M		S
COS1MPH1.02	H	H		S	S
COS1MPH1.03	H		M		
COS1MPH1.04	H	S			H
COS1MPH1.05	H	S			S

Course Code (CO)	Program Outcome (PO)				
	PO1	PO2	Po3	PSO1	PSO2
COS2 MPC3.01	M	H	M		H
COS2 MPC3.02	M	H	M		M
COS2 MPC3.03		S	M		M
COS2 MPC3.04	H	H	M		-

Course Code (CO)	Program Outcome (PO)				
	PO1	PO2	PO3	PSO1	PSO2
COS1 MPH3.01	H		M		S
COS1 MPH3.02	H	H		S	S
COS1 MPH3.03	H		M		
COS1 MPH3.04	H	S			H
COS1 MPH3.05	H	S			S

Course Code (CO)	Program Outcome (PO)				
	PO1	PO2	Po3	PSO1	PSO2
COS1 MPH4.01	H	M	M	H	
COS1 MPH4.02	S	M	H		M
COS1 MPH4.03	S	S	H		S
COS1 MPH4.04	H	S	M	M	H
COS1 MPH4.05		L	H	M	
COS1 MPH4.06	H		M	M	H

Course Code (CO)	Program Outcome (PO)				
	PO1	PO2	Po3	PSO1	PSO2
COS2 MPt4.01	H	M	M	M	H
COS2 MPt4.02	M	S	M		M
COS2 MPt4.03	H	S	H	S	S
COS2 MPt4.04	H	M	H	S	M

Course Code (CO)	Program Outcome (PO)				
	PO1	PO2	Po3	PSO1	PSO2
COS3 MPt4.01	H	M	H	S	H
COS3 MPt4.02	H	M	H	S	H
COS3 MPt4.03	H	S	M	S	
COS3 MPt4.04	H	M	M	M	M
COS3 MPt4.05	H	S	H	M	

Course Code (CO)	Program Outcome (PO)				
	PO1	PO2	Po3	PSO1	PSO2
COS2 MPQ2 01	H	H	H		M
COS2 MPQ2 02	M	S	H		
COS2 MPQ2 03	M	M	H		
COS2 MPQ2 04	M		M		
COS2 MPQ2 05	S	M	S		

Course Code (CO)	Program Outcome (PO)				
	PO1	PO2	Po3	PSO1	PSO2
COS3 MPA4 01	H		M		M
COS3 MPA4 02	H	M			M
COS3 MPA4 03	M		M	S	
COS3 MPA4 04	H	S			M
COS3 MPA4 05	H	S	M	M	S

Course Code (CO)	Pprogram Outcome (PO)				
	PO1	PO2	Po3	PSO1	PSO2
COS3 MPQ5 01		H	H		H
COS3 MPQ5 02	H	S	H		H
COS3 MPQ5 03		M	M		H
COS3 MPQ5 04		H	H		H
COS3 MPQ5 05	H	H	M		

Course Code (CO)	Program Outcome (PO)				
	PO1	PO2	Po3	PSO1	PSO2
COS2 MPT3 01	H		H		H
COS2 MPT3 02	H		M		H
COS2 MPT3 03	H	M	M	M	
COS2 MPT3 04	H	M		M	

Course Code (CO)	Program Outcome (PO)				
	PO1	PO2	Po3	PSO1	PSO2
COS2 MPC4 01	H		M		S
COS2 MPC4 02	H			M	S
COS2 MPC4 03	M		M		S
COS2 MPC4 04	H		M		S
COS2 MPC4 05	H	S			M
COS2 MPC4 06	H		M	M	

Course Code (CO)	Program Outcome (PO)				
	PO1	PO2	Po3	PSO1	PSO2
COS2 MPT3 01	H		M		S
COS2 MPT3 02	H	M	S		
COS2 MPT3 03	H	M	M	M	
COS2 MPT3 04	H	S	M	M	M

Course Code (CO)	Program Outcome (PO)				
	PO1	PO2	Po3	PSO1	PSO2
COS2 MPC3 01	H	M	H	H	M
COS2 MPC3 02	H	S	H	M	S
COS2 MPC3 03	H	M	M	H	S
COS2 MPC3 04	H	S	H	H	S

Course Code (CO)	Program Outcome (PO)				
	PO1	PO2	Po3	PSO1	PSO2
COS2 MPA4. 01	H		M		M
COS2 MPA4. 02	H	M			M
COS2 MPA4. 03	M		M	S	
COS2 MPA4. 04	H	S			S
COS2 MPA4. 05	H	S	M	M	S

Course Code (CO)	Program Outcome (PO)				
	PO1	PO2	PO3	PSO1	PSO2
COS2 MPT3 01	H	M	M	M	S
COS2 MPT3 02	H	M	S	S	S
COS2 MPT3 03	H	S	M	M	
COS2 MPT3 04	H	S	M	M	M

Course Code (CO)	Program Outcome (PO)				
	PO1	PO2	Po3	PSO1	PSO2
COS3 MPL4 01	M	M	H	S	M
COS3 MPL4 02	M	H	H	S	M
COS3 MPL4 03	H	M	M	S	M
COS3 MPL4 04	M	H	M	S	M
COS3 MPL4 05	M	M	H	S	M
COS3 MPL4 06	M	H	M	S	H
COS3 MPL4 07	S	H	H	S	H

Course Code (CO)	Program Outcome (PO)				
	PO1	PO2	Po3	PSO1	PSO2
COS2 MPL5 01	H	H	H	M	H
COS2 MPL5 02	H	H	H	H	M
COS2 MPL5 03		S	H		M
COS2 MPL5 04	H	M	H	S	H

Course Code (CO)	Program Outcome (PO)				
	PO1	PO2	Po3	PSO1	PSO2
COS2 MPL3 01	H	M	M		S
COS2 MPL3 02	M	S	H	S	M
COS2 MPL3 03	M		M		M
COS2 MPL3 04	H	S	H	S	H

The attainment of program outcome is done by using the following formula;

Attainment of program outcome = 80% (Avg. attainment by direct method) +20% (Avg. attainment by indirect method)

Direct method:

The average of each PO's values of CO-PO matrix are used in calculation of Program Outcome Attainment which is considered as " **Direct Method**".

Indirect method:

In this method feedback for all Program Outcomes and Program Specific outcomes are taken from the alumni and employers and this is incorporated in the formula for calculation of program outcome attainment. The weightage of attainment by indirect method is 20% in the calculation of program outcome attainment.

The attainment level for program outcome is defined as follows:

Program outcome	Target attainment level
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

The whole exercise is done for continuous quality improvement of the college. Based on the Attainment values the teaching learning practices are modified and improved.

6th March 2024.

Principal
Maulana Azad Educational Trust's
Y. B. Chavan College of Pharmacy
Aurangabad

OUTCOME BASED EDUCATION (OBE)

SUMMARY OF ATTAINMENT OF PROGRAM OUTCOME FOR YEAR 2018-19

B. Pharm Program (Aug 2015- May 2019)

Attainment Achieved:1.79

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M. Pharm Program (Aug 2017- May 2019)

M.Pharm Pharmaceutics

Attainment Achieved: 1.85

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M.Pharm Pharm. Chemistry

Attainment Achieved: 2.11

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M.Pharm Pharmcology

Attainment Achieved: 1.97

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M.Pharm Quality Assurance

Attainment Achieved: 1.98

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

6th March 2024

Principal
Maulana Azad Educational Trust's
V. B. Chavan College of Pharmacy
Aurangabad

SUMMARY OF ATTAINMENT OF PROGRAM OUTCOME FOR YEAR 2019-20

B. Pharm Program (Aug 2016- May 2020)

Attainment Achieved: 1.81

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M. Pharm Program (Aug 2018- May 2020)

M.Pharm Pharmaceutics

Attainment Achieved: 2.00

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M.Pharm Pharm. Chemistry

Attainment Achieved: 1.93

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M.Pharm Pharmcology

Attainment Achieved: 1.86

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M.Pharm Quality Assurance

Attainment Achieved: 1.98

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

6th March 2024

Principal
Maulana Azad Educational Trust's
Y. B. Chavan College of Pharmacy

SUMMARY OF ATTAINMENT OF PROGRAM OUTCOME FOR YEAR 2020-21

B. Pharm Program (Aug 2017- May 2021)

Attainment Achieved: 2.10

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M. Pharm Program (Aug 2019- May 2021)

M.Pharm Pharmaceutics

Attainment Achieved: 2.02

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M.Pharm Pharm. Chemistry

Attainment Achieved: 1.89

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M.Pharm Pharmcology

Attainment Achieved: 1.78

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M.Pharm Quality Assurance

Attainment Achieved: 1.93

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

6th March 2024.

Principal
Maulana Azad Educational Trust's
V. B. Chavan College of Pharmacy
Aurangabad

SUMMARY OF ATTAINMENT OF PROGRAM OUTCOME FOR YEAR 2021-22

B. Pharm Program (Aug 2018- May 2022)

Attainment Achieved: 2.07

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M. Pharm Program (Aug 2020- May 2022)

M. Pharm Pharmaceutics

Attainment Achieved: 1.69

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M. Pharm Pharm. Chemistry

Attainment Achieved: 2.01

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M. Pharm Pharmcology

Attainment Achieved: 1.93

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M. Pharm Quality Assurance

Attainment Achieved: 2.02

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

6th March 2024

Principal
Maulana Azad Educational Trust's
Y. B. Chavan College of Pharmacy
Aurangabad

SUMMARY OF ATTAINMENT OF PROGRAM OUTCOME FOR YEAR 2022-23

B. Pharm Program (Aug 2019- May 2023)

Attainment Achieved: 2.16

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M. Pharm Program (Aug 2021- May 2023)

M. Pharm Pharmaceutics

Attainment Achieved: 2.04

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M. Pharm Pharm. Chemistry

Attainment Achieved: 2.26

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M. Pharm Pharmcology

Attainment Achieved: 2.20

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

M. Pharm Quality Assurance

Attainment Achieved: 2.22

Program outcome Level	Target Attainment
Level 1	0.5 > 1.0
Level 2	1.0 > 1.5
Level 3	1.5 > 2.0
Level 4	2.0 > 2.5
Level 5	2.5 > 3.0

6th March 2024.

Principal
Maulana Azad Educational Trust's
Y. B. Chavan College of Pharmacy
Aurangabad