

Dr. Bhimrao Ambedkar University, Agra

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A Documentary Support for Matric No. – 1.1.1 Programme Outcomes & Course Outcomes

under the
Criteria – I
(Curriculum Design and Development)
Key Indicator - 1.1

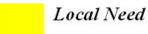
in Matric No. – 1.1.1

MASTER OF PHARM(PHARMACEUTICAL CHEMISTRY)

2021



Mapping:





PROGRAM OBJECTIVES

Sr.No	<u>POs</u>
1	To progress in professional specialization leading to Master degree so as to increase
	inclination for higher education and research studies.
2	To acquire knowledge, skills and techniques to identify analyze and solve realistic
	problems at diverse area of professional practice
3	To cater needs of society, industry, health care and to contribute in R&D
4	To adapt professional values, morality, ethics and interpersonal skills to
	practiceprofession
5	To Comprehend current national and global issues in pharmacy profession and foster
	lifelong learning

Name of Programme	M.Pharma (Pharmaceutical Chemistry)
Course wise Cos	

YEAR/ Sem	SUBJECT & SUBJECT CODE	Course Outcomes (COs)
1 sem	ADVANCED ORGANIC CHEMISTRY 1 MPC101T	CO1: To explain various reaction mechanisms involved in the Synthesis of various drug molecules
		CO2:To acquire adequate knowledge and necessary practical skills.
		CO3: To discuss and understanding reaction mechanisms, identification of lead molecules and their eventual refinement for development as drugs.
		CO4: To identify the natural and synthetic molecules used as therapeutic agents
	ADVANCED MEDICINAL CHEMISTRY MPC102T	CO1 To identify the different types of organic reactions in the synthesis ofdrug molecules.
		CO2 To understand the mechanism of action of drugs belonging to the classes of Anti-hypertensive, Psychoactive.
		CO3 Anticonvulsant, H1/H2 receptor antagonistic, COX1 & COX2 inhibiting, Adrenergic & Cholinergic, Antineoplastic and Antiviral agents.
		CO4 A detailed understanding of the processes involved in the design, development and discovery of medicinal compounds.

YEAR/ Sem	SUBJECT & SUB	BJECT CODE	Course Outcomes (COs)
1 Sem	CHEMISTRY PRODUCTS MPC104T	OF NATURA	CO1: To attain detailed knowledge about chemistry of medicinal compounds fromnatural origin.
			CO2: To understand general methods of structural elucidation of medicinally active natural compounds.
			CO3: To attain knowledge regarding isolation and purification of medicinal compounds from natural origin.
			CO4: To characterize products by physical a spectroscopic means including IR, NMR,GC, and MS.
			CO5: To identify different types of natural products, their occurrence, structure, biosynthesis and properties.
			CO6: To know the use of natural products as starting materials.

YEAR/ Sem	CSUBJECT & SUBJECT CODE	Course Outcomes (COs)
1 Sem	MODERN PHARMACEUTI CAL ANALYTICAL TECHNIQUES MPC104T	CO1: Apply fundamentals of pharmaceutical chemistry, Pharmaceutics, Pharmaceutical technology, Pharmacy practice, Pharmacology, Pharmacognosy and Quality assurance to elucidate and regulate drug discovery, drug development care practice CO2: An ability to design and conduct experiments, as well as to analyze and interpret data of appropriate pharmaceutical system or process
		CO3: An ability to design, synthesis, isolate a drug and drug formulation system, component, or drug use process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety manufacturability, and sustainability CO4: An ability to function on multidisciplinary teams, at different organizational levels of academic, industry, research and health care

I	CO5: An ability to identify, formulate and solve pharmaceutical problems meeting professional challenges
e S	CO6: An understanding of pharmacy professional values and ethical responsibility in discharging professional obligations at society, national and global perspectives
	CO7: An ability to communicate effectively both verbal and written to gain recognition at professional circle andsocietal level.

YEAR/ Sem	SUBJECT & SUBJECT CODE	Course Outcomes (COs)		
2 Sem	ADVANCED SPECTRAL ANALYSIS MPC201T	CO1	Apply fundamentals of pharmaceutical chemistry, Pharmaceutics, Pharmaceutical technology, Pharmacy practice, Pharmacology, Pharmacognosy and Quality assurance to elucidate and regulate drug discovery, drug development care practice	
		CO2	An ability to design and conduct experiments, as well as to analyze and interpret data of appropriate pharmaceutical system or process	
		CO3	An understanding of pharmacy professional values and ethical responsibility in discharging professional obligations at society, national and global perspectives.	
		CO4	An ability to employ the techniques, skills, and modern tools necessary for professional practice, research and development	
	ADVANCED ORGANIC	CO1	To identify the different types of organic reactions	
	CHEMISTRY 2 MPC202T		in the synthesis of drug molecules	
		CO2	To discuss the applications of intermediates to account for stability/reactivity/orientation in designing new drug molecules	

CO3	The stereo chemical aspects of organic compounds and its reactions to facilitate to synthesize the selective isomer
CO4	To understand the applications of reaction mechanism in the synthesis of new chemical entities
CO5	To identify and isolate the natural and synthetic molecules used as

SUBJECT & SUBJECT CODE	Course Outcomes (COs)
COMPUTER AIDEDDRUG DESIGN MPC203T	CO1: To Overview the concepts of computers in pharmaceutical research and development and QBD
	CO2: To study the basic concepts of computational modeling of drug disposition and introduction to modeling techniques including drug absorption, solubility, permeation, ADME, Active transport.
	CO3: To gain the knowledge of computer aided formulation development and to know the optimization parameters and factorial design.
	CO4: To understand the aspects of biopharmaceutical characterization through computer aided techniques.
PHARMACEUTICAL PROCESS CHEMISTRY MPC204T	CO1: To develop synthetic routes that is safe, cost-effective, environmentally friendly, and efficient
	CO2: To impart knowledge on the development and optimization of asynthetic route/s
	CO3: The pilot plant procedure for the manufacture of Active Pharmaceutical Ingredients and newchemical entities for the drug development phase.
	CO4: To create and carry out work up and separation procedure.
	CO5: To predict the outcome of organic reactions using a basic understanding of the general reactivity of functional groups and mechanism.
	COMPUTER AIDED DRUG DESIGN MPC203T PHARMACEUTICAL PROCESS CHEMISTRY

PROGRAM SPECIFIC OUTCOMES

Sr.No	<u>PSOs</u>
I	Knowledge: Enable graduates to understand the core and basic knowledge in different subjects of pharmaceutical sciences as per the requirement of pharmaceutical sectors.
II	Employment & Entrepreneur: Enable graduate to succeed in technical or professional careers in various pharmaceutical industry/institute or health care system
III	Professional Practice: Enable graduate to practice profession and adapt in a globe of constantly developing trends
IV	Lifelong Learning & Professional Ethics: Enable graduate to streams a lifelong career of personal and practicing professional growth with ethical codes and self esteem