

## Amar Shaheed Baba Ajit Singh Jujhar Singh Memorial

# **COLLEGE OF PHARMACY**



BELA (Ropar) Punjab 140 111

M.PHARMACY (PHARMACOLOGY)		
1 <sup>st</sup> SEMESTER COURSEOUTCOMES		
Course Code: MPL101T	Course Name: Modern Pharmaceutical AnalyticalTechniques	
MPL101.1	To know about chemicals and excipients.	
MPL101.2	To know the analysis of various drugs in single and combination dosage forms.	
MPL101.3	To learn theoretical and practical skills of the instruments.	
Course Code: MPL102T	Course Name: Advanced Pharmacology-I	
MPL102.1	To discuss the pathophysiology and pharmacotherapy of certain diseases	
MPL102.2	To explain the mechanism of drug actions at cellular and molecular level.	
MPL102.3	To understand the adverse effects, contraindications and clinical uses of drugs used in treatment of diseases.	
Course Code: MPL103T	Course Name: Pharmacological & ToxicologicalScreening Methods - I	
MPL103.1	To learn the regulations and ethical requirement for the usage of experimental animals.	
MPL103.2	To describe the various animals used in the drug discovery process and good laboratory practices in maintenance and handling of experimental animals.	
MPL103.3	To describe the various newer screening methods involved in the drug discovery process.	
MPL103.4	To correlate the preclinical data to humans.	
Course Code: MPL104T	Course Name: Cellular & Molecular Pharmacology	
MPL104.1	To explain the receptor signal transduction processes.	
MPL104.2	To understand the molecular pathways affected by drugs.	
MPL104.3	To learn the applicability of molecular pharmacology and biomarkers in drug discovery process.	
MPL104.4	To demonstrate molecular biology techniques as applicable for pharmacology.	
Course Code: MPL105P	Course Name: Experimental Pharmacology - I	
MPL105.1	To learn the combination drug analysis of various drugs, Understand the theoretical principles of assay of drugs covering spectrophotometric, HPLC and potentiometric end-point determination.	
MPL105.2	To experience the various routes of drug administration, methods for collection of blood, anesthetics used in laboratory animals and techniques of Euthanasia.	
MPL105.3	To learn various drugs preclinical evaluation; i.e. CNS acting drugs, analgesic, anti-inflammatory, local anesthetic, mydriatic and miotic diuretic, antiulcer activity and glucose tolerance test.	
MPL105.4	To understand the concept of rDNA technology and learn about molecular biology techniques as applicable for pharmacology	
MPL105.5	To learning the concepts of bioavailability and bioequivalence studies various compartmental models.	



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M.PHARMACY (PHARMACOLOGY)  2nd SEMESTER COURSEOUTCOMES		
Course Code: MPL201T	Course Name: Advanced Pharmacology - II	
MPL201.1	To explain the mechanism of drug actions at cellular and molecular level.	
MPL201.2	To understand the Pathophysiology and pharmacotherapy of certain diseases.	
MPL201.3	To understand the adverse effects, contraindications and clinical uses of drugs used intreatment of diseases.	
Course Code: MPL202T	Course Name: Pharmacological & ToxicologicalScreening Methods-II	
MPL202.1	To explain the various types of toxicity studies.	
MPL202.2	To learn the importance of ethical and regulatory requirements for toxicity studies.	
MPL202.3	To demonstrate the practical skills required to conduct the preclinical toxicity studies.	
Course Code: MPL203T	Course Name:Principles of Drug Discovery	
MPL203.1	To explain the various stages of drug discovery.	
MPL203.2	To understand the importance of the role of genomics, proteomics and bioinformatics in drug discovery.	
MPL203.3	To learn various targets for drug discovery	
MPL203.4	To demonstrate various lead seeking method and lead optimization	
MPL204.5	To illustrate the importance of the role of computer aided drug design in drug discovery.	
Course Code: MPL204T	Course Name: Clinical Research & Pharmacovigilance	
MPL204.1	To explain the regulatory requirements for conducting clinical trial.	
MPL204.2	To demonstrate the types of clinical trial designs.	
MPL204.3	To explain the responsibilities of key players involved in clinical trials.	
MPL204.4	To execute safety monitoring, reporting and closeout activities.	
MPL204.5	To understand the principles of Pharmacovigilance.	
MPL204.6	To detect new adverse drug reactions and their assessment.	
MPL204.7	To perform the adverse drug reaction reporting systems and communication in Pharmacovigilance.	
Course Code: MPL205P	Course Name: Experimental Pharmacology - II	
MPL205.1	To learn record the effect of drug CRC, various bioassay using suitable isolated tissue preparations.	
MPL205.2	To understand the OECD toxicity guidelines, safety Pharmacology, understand the drug antagonism using isolated tissue preparations.	
MPL205.3	To learn the computer aided drug design in drug discovery, In-silico study in various models.	
MPL205.4	To understand the clinical trials, ADR monitoring and reporting.	



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M.PHARMACY (PHARMACOLOGY)  3rd SEMESTER COURSEOUTCOMES		
Course Code: MRM301T	Course Name: Research Methodology & Biostatistics	
MPL301.1	To learn about various aspects of research.	
MPL301.2	To apply the biostatistics in research.	
MPL301.3	To understand the CPCSEA guidelines to use animals.	
MPL301.4	To understand and apply the Declaration of Helsinki	