COURSE OBJECTIVES OF M.PHARM

PHARMACOLOGY (MPL)

MODERN PHARMACEUTICAL ANALYTICAL TECHNIQUES (MPT 101T)

- Chemicals and excipients
- The analysis of various drugs in single and combination dosage forms.
- Theoretical and practical skills for handling analytical instruments.

ADVANCED PHARMACOLOGY–I (MPL102T)

- Discuss the pathophysiology and pharmacotherapy of certain diseases.
- Explain the mechanism of drug actions at the cellular and molecular level.

PHARMACOLOGICAL AND TOXICOLOGICAL SCREENING METHODS - I (MPL 103T)

- Appraise the regulations and ethical requirements for the usage of experimental animals.
- Describe the various animals used in the drug discovery process and Good Laboratory Practices (GLP) in the maintenance and handling of experimental animals.

CELLULAR AND MOLECULAR PHARMACOLOGY (MPL 104T)

- Explain the receptor signal transduction processes.
- Explain the molecular pathways affected by drugs.
- Appreciate the applicability of molecular pharmacology and biomarkers in the drug discovery process.
- Demonstrate molecular biology techniques as applicable for pharmacology.

ADVANCED PHARMACOLOGY – II (MPL 201T)

- Explain the mechanism of drug actions at the cellular and molecular level.
- Discuss the pathophysiology and pharmacotherapy of certain diseases.
- Understand the adverse effects, contraindications, and clinical uses of drugs used in the treatment

of diseases.

• Pharmacological and Toxicological Screening Methods - II (MPL 202T)

• Explain the various types of toxicity studies.

• Appreciate the importance of ethical and regulatory requirements for toxicity studies.

• Demonstrate the practical skills required to conduct the preclinical toxicity studies.

• Principles of Drug Discovery (MPL 203T)

• Explain the various stages of drug discovery.

• Appreciate the importance of the role of genomics, proteomics, and bioinformatics in drug discovery.

CLINICAL RESEARCH AND PHARMACOVIGILANCE (MPL 204T)

- Explain the regulatory requirements for conducting clinical trials.
- Demonstrate the types of clinical trial designs.
- Explain the responsibilities of key players involved in clinical trials.
- Execute safety monitoring, reporting, and close-out activities.
- Explain the principles of Pharmacovigilance.
- Detect new adverse drug reactions (ADRs) and their assessment.
- Perform the adverse drug reaction reporting systems and communication in Pharmacovigilance.