

COURSE OUTCOMES
M.PHARM PHARMACEUTICS

Course:	Code: MPH101T Modern Pharmaceutics Analysis
CO1	Understand the basic knowledge on assay of single and multiple component pharmaceuticals by using various analytical instruments
CO2	Skills in selecting suitable techniques for the analysis of drugs and pharmaceuticals
CO3	Expand the theoretical knowledge on various instrumental techniques available for analysis of organic substances
CO4	Apply the knowledge learnt in developing new procedures of their own design
Course:	Code: MPH101P Modern Pharmaceutics Analysis
CO1	Understand the principles, procedures and applications of different analytical techniques
CO2	Determine the structure of various categories of drugs by interpreting the results and data obtained from a variety of analytical techniques such as UV, visible and IR spectroscopic techniques
CO3	Separate the components of chemical mixture by different chromatographic techniques like paper, TLC, HPLC and electrophoresis
CO4	Perform skillfully in all their laboratory performances as per prescribed analytical guidelines
Course:	Code: MPH102T Modified Release Drug Delivery System
CO1	Understand various approaches for development of novel drug delivery system
CO2	Learn criteria for selection of drugs and polymers for the development of delivery system
CO3	Understand the formulation and evaluation of novel drug delivery system such as gastro retentive, ocular and transdermal
CO4	Understand basic concepts, principles and fundamentals of proteins and peptides, vaccines in novel drug delivery system
Course:	Code: MPH103T Modern Pharmaceutics
CO1	Understand the elements of preformulation studies and validation techniques
CO2	Understand optimization techniques and pilot plant scale up techniques
CO3	Understand the concept of compression, compaction and generic drug product development learn industrial management and GMP considerations
CO4	Study stability testing, sterilization process, packaging of dosage forms and study of various parameter with importance of statistics

Course:	Code: MPH104T Pharmaceutical Regulatory Affair
CO1	To know the documentation process in pharmacy industry and the regulatory requirement for product approval
CO2	To know the chemistry, manufacturing controls CTD format and ICH guidelines
CO3	To know about global submission of IND, NDA, ANDA and dossier, investigators brochure
CO4	Clinical trials, protocols, HIPPA, safety monitoring in clinical trials
Course:	Code: MPH105P Pharmaceutics I
CO1	Understand theory, principle and methodology of various formulations
CO2	Prepare and analyze drug release profile
CO3	Understand and perform various evaluation tests
Course:	Code: MPH201T Molecular Pharmaceutics (Nano Technology and Targeted (DDS)
CO1	Understand various approaches for development of targeted drug delivery system.
CO2	Understand criteria for selection of drugs and polymers for the development of NDDS
CO3	Formulation and evaluation of NDDS
CO4	Understand formulation and evaluation of nanoparticles and liposome's
Course:	Code: MPH202T Advanced Biopharmaceutics and Pharmacokinetics
CO1	Understand basic concepts in biopharmaceutics and pharmacokinetics.
CO2	Apply raw data and derive the pharmacokinetic models and parameters and best describe the process of drug absorption, distribution, metabolism and elimination.
CO3	Understand critical evaluation of biopharmaceutics studies involving drug product equivalency.
CO4	Know design and evaluate dosage regimens of the drugs using pharmacokinetic and biopharmaceutics parameters
Course:	Code: MPH 203T Computer Aided Drug Development
CO1	Know the history of computers in pharmaceutical research and development
CO2	Understand computational modelling of drug disposition
CO3	Know the use of computers in preclinical development, optimization techniques in pharmaceutical formulation
CO4	know the use of computers in market analysis, computers in clinical development

Course:	Code: MPH204T Cosmetics and Cosmeceuticals
CO1	Regulatory provisions related to import and manufacturing etc. Key ingredients used and building blocks for various formulations in cosmetics and cosmeceuticals
CO2	To understand the current technologies and the design of cosmeceutical product in the market
CO3	To understand the biological aspects, various key ingredients and basic science related to skin and skin related problems associated with cosmetics and cosmeceuticals
CO4	Scientific knowledge to develop herbal cosmetic and cosmeceuticals with desired safety, stability and efficacy
Course:	Code: MPH205P Molecular Pharmaceutics (NANOTECH AND TARGETED DDS)
CO1	Formulate different vesicular carriers for novel drug delivery and analysis of drug release profile
CO2	Evaluate the different vesicular carriers for novel drug delivery
CO3	Apply the knowledge of computer simulations in pharmacokinetics and pharmacodynamics studies, use DoE and QbD techniques in product development
Course:	Code: MPH205P Pharmaceutics II
CO1	Develop various techniques to enhance the dissolution characteristics of poorly soluble drugs, compare dissolution profile of two different marketed products, determine % protein binding
CO2	Formulate and evaluate the various cosmetic products and address the problems associated with dry skin, acne, blemish, wrinkles bleeding gums and dandruff
CO3	Able to explain basic principle of cosmetic formulation and principle to improve dissolution characteristic
Course:	Project
CO1	Demonstrate a sound technical knowledge of their selected thesis title at individual level
CO2	Undertake problem identification, formulation & solution
CO3	Design formulation solutions to complex problems utilizing a system approach
CO4	Communicate with formulation scientist and the community at large in return & oral forms