Crescent School of Pharmacy
I M. Pharm. I Semester

Code & Course	Scope	Objectives
MPH101T Modern Pharmaceutical Analytical Techniques	This subject deals with various advanced analytical instrumental techniques for identification, characterization and quantification of drugs. Instruments dealt are NMR, Mass spectrometer, IR, HPLC, GC et	1. To Know theoretical and practical skills of the instruments 2. The analysis of various drugs in single and combination dosage forms. 3. Will know the difference between Chemicals and Excipients.
MPH102T Drug Delivery Systems	This course is designed to impart knowledge on the area of advances in novel drug delivery systems.	1. The various approaches for development of novel drug delivery systems. 2. The criteria for selection of drugs and polymers for the development of delivering system 3. The formulation and evaluation of Novel drug delivery systems.
MPH103T Modern Pharmaceutics	Course designed to impart advanced knowledge and skills required to learn various aspects and concepts at pharmaceutical industries.	1. The Active Pharmaceutical Ingredients and Generic drug Product. 2. The elements of preformulation studies. Optimization Techniques 3. Industrial Management and GMP Considerations. 4. Development & Stability Testing, sterilization process. 5. Pilot Plant Scale Up Techniques & packaging of dosage form.
MPH104T Regulatory Affairs	Course designed to impart advanced knowledge and skills required to learn the concept of generic drug and their development, various regulatory filings in different countries, different phases of clinical trials and submitting regulatory documents : filing process of IND, NDA and ANDA	1. The Concepts of innovator and generic drugs, drug development process. 2. The Regulatory guidance's and guidelines for filing and approval process. 3. Preparation of Dossiers and their submission to regulatory agencies in different countries. 4. Post approval regulatory requirements for actives and drug product. 5. Submission of global documents in CTD/ eCTD formats. 6. Clinical trials requirements for approvals for conducting clinical trials. 7. Pharmacovigilence and process of monitoring in clinical trials.

Crescent School of Pharmacy

I M. Pharm. II Semester

Code & Course	Scope	Objectives
MPH201T Molecular Pharmaceutics (Nano Technology & Targeted DDS) (NTDS)	This course is designed to impart knowledge on the area of advances in novel drug delivery systems.	1. The various approaches for development of novel drug delivery systems. 2. The criteria for selection of drugs and polymers for the development of NTDS 3. The formulation and evaluation of novel drug delivery systems.
MPH202T Advanced Pharmaceutics & Pharmacokinetics	This course is designed to impart knowledge and skills necessary for dose calculations, dose adjustments and to apply biopharmaceutics theories in practical problem solving. Basic theoretical discussions of the principles of biopharmaceutics and pharmacokinetics are provided to help the students' to clarify the concepts.	1. The basic concepts in biopharmaceutics and pharmacokinetics. 2. The use raw data and derive the pharmacokinetic models and parameters the best describe the process of drug absorption, distribution, metabolism and elimination. 3. The critical evaluation of biopharmaceutic studies involving drug product equivalency. 4. The design and evaluation of dosage regimens of the drugs using pharmacokinetic and biopharmaceutic parameters. 5. The potential clinical pharmacokinetic problems and application of basics of pharmacokinetic.
MPH203T Computer Aided Drug Development	This course is designed to impart knowledge and skills necessary for computer Applications in pharmaceutical research and development who want to understand the application of computers across the entire drug research and development process. Basic theoretical discussions of the principles of more integrated and coherent use of computerized information (informatics) in the drug development process are provided to help the students to clarify the concepts.	1. History of Computers in Pharmaceutical Research and Development 2. Computational Modeling of Drug 3. Computers in Preclinical Development 4. Optimization Techniques in Pharmaceutical Formulation 5. Computers in Market Analysis 6. Computers in Clinical Development 7. Artificial Intelligence (AI) and Robotic 8. Computational fluid dynamics(CFD)
MPH204T Cosmetics and Cosmeceuticals	This course is designed to impart knowledge and skills necessary for the fundamental need for cosmetic and cosmeceutical products	1. Key ingredients used in cosmetics and cosmeceuticals. 2. Key building blocks for various formulations. 3. Scientific knowledge to develop cosmetics and cosmeceuticals with desired Safety, stability and efficacy. 4. Various key ingredients and basic science to develop cosmetics and cosmeceuticals