

M. Pharmacy Course (Pharmaceutics)

S. No.	Sub Name	Subject Code	Subject type	Sub. Category	Credit Points	Max. marks		Total marks
						Int.	Ext.	
1.	Molecular Pharmaceutics (Nano Tech and Targeted DDS)	PHAR5107	Mandatory	Theory	4	25	75	100
2.	Advanced Biopharmaceutics & Pharmacokinetics	PHAR5108	Mandatory	Theory	4	25	75	100
3.	Computer Aided Drug Delivery System	PHAR5109	Mandatory	Theory	4	25	75	100
4.	Cosmetic and Cosmeceuticals	PHAR5110	Mandatory	Theory	4	25	75	100
5.	Pharmaceutics Practical II	PHAR5111	Mandatory	Practical	6	50	100	150
6.	Seminar/Assignment	PHAR5112	Mandatory	-	4	-	100	100
TOTAL					26	150	500	650

COURSE CURRICULUM OF MASTER OF PHARMACY (PHARMACEUTICS)

FIRST YEAR Second Semester

MPH 201T/ PHAR5107: MOLECULAR PHARMACEUTICS (NANO TECHNOLOGY & TARGETED DDS) (NTDS)

This course is designed to impart knowledge on the area of advances in novel drug delivery systems. Upon completion of the course student shall be able to understand the various approaches for development of novel drug delivery systems, criteria for selection of drugs and polymers for the development of NTDS and formulation and evaluation of novel drug delivery systems.

MPH 202T/ PHAR5108: ADVANCED BIOPHARMACEUTICS & 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

MPH 203T/ PHAR5109: 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.

MPH 204T/ PHAR5110: COSMETICS AND COSMECEUTICALS

This course is designed to impart knowledge and skills necessary for the fundamental need for cosmetic and cosmeceutical products. Upon completion of the course, the students shall be able to understand key ingredients used in cosmetics and cosmeceuticals, key building blocks for various formulations, Current technologies in the market, various key ingredients and basic science to develop cosmetics and cosmeceuticals Scientific knowledge to develop cosmetics and cosmeceuticals with desired Safety, stability, and efficacy.

MPH 205P/ PHAR5111: PHARMACEUTICS PRACTICALS – II

The course covers the study of the effect of temperature change , non-solvent addition, incompatible polymer addition in microcapsules preparation, Preparation and evaluation of Alginate beads, Formulation and evaluation of gelatin /albumin microspheres, Formulation and evaluation of liposomes/niosomes, Formulation and evaluation of spherules, Improvement of dissolution characteristics of slightly soluble drug by Solid dispersion technique, Comparison of dissolution of two different marketed products /brands, Protein binding studies of a highly protein bound drug & poorly protein bound drug, Bioavailability studies of Paracetamol in animals, Pharmacokinetic and IVIVC data analysis by WinnolineR software, In vitro cell studies for permeability and metabolism, DoE Using Design Expert® Software, Formulation data analysis Using Design Expert® Software, Quality-by-Design in Pharmaceutical Development, Computer Simulations in Pharmacokinetics and Pharmacodynamics, Computational Modeling Of Drug Disposition, To develop Clinical Data Collection manual, To carry out Sensitivity Analysis, and Population Modeling, Development and evaluation of Creams, Development and evaluation of Shampoo and Toothpaste base, To incorporate herbal and chemical actives to develop products, To address Dry skin, acne, blemish, Wrinkles, bleeding gums and dandruff.