

Master of Pharmacy (M.Pharm)

Course Title: Master of Pharmacy

Abbreviation: M. Pharm

Type of Course: A two years Degree course

Pattern: Semester system (4 semesters)

Award of the Degree: Ranks and Medals shall be awarded on the basis of final CGPA. However, candidates who fail in one or more courses during the B.Pharm program shall not be eligible for award of ranks. Moreover, the candidates should have completed the B. Pharm program in minimum prescribed number of years, (four years) for the award of Ranks.

Course Objective:

Master of Pharmacy is designed to prepare successful postgraduate fellows to face any challenge in their technical or professional careers in near future and also to adapt in any parts of the globe of constantly developing trends. The postgraduate students can apply skills for specialized research in the core and applied areas of pharmaceutical sciences and to interpret data of pharmaceutical experiments in drug discovery as per the needs of pharmaceutical industries.

Minimum eligibility criteria and the process of admission:

A Pass in the following examinations

- a) B. Pharm Degree examination of an Indian university established by law in India from an institution approved by Pharmacy Council of India and has scored not less than 55 % of the maximum marks (aggregate of 4 years of B.Pharm)
- b) Every student, selected for admission to post graduate pharmacy program in any PCI approved institution should have obtained registration with the State Pharmacy Council or should obtain the same within one month from the date of his/her admission, failing which the admission of the candidate shall be cancelled.

Note: It is mandatory to submit a migration certificate obtained from the respective university where the candidate had passed his/her qualifying degree (B.Pharm)

Credit distribution:

Courses are broadly classified as Theory and Practical. Theory courses consist of lecture (L) and Practical (P) courses consist of hours spent in the laboratory. Credits (C) for a course is dependent on the number of hours of instruction per week in that course, and is obtained by using a multiplier of one (1) for lecture and a multiplier of half (1/2) for practical (laboratory) hours. Thus, for example, a theory course having four lectures per week throughout the semester carries a credit of 4. Similarly, a practical having four laboratory hours per week throughout semester carries a credit of 2.

The minimum credit points required for the award of M. Pharm. degree is 95. However based on the credit points earned by the students under the head of co-curricular activities, a student shall earn a maximum of 100 credit points. These credits are divided into Theory courses, Practical, Seminars, Assignments, Research work, Discussions with the supervisor, Journal club and Co-Curricular

activities over the duration of four semesters. The credits are distributed semester-wise as shown below tables.

Semester wise credits distribution

Semester	Credit Points
I	26
II	26
III	21
IV	20
Co-curricular Activities (Attending Conference, Scientific Presentations and Other Scholarly Activities)	Minimum=02 Maximum=07*
Total Credit Points	Minimum=95 Maximum=100*

Master of Pharmacy (M.Pharm)- PHARMACEUTICS

Course Objective:

The postgraduate students should have foundation in science, formulation technology, synthetic knowledge and in an industry atmosphere for future. Discovery tools as per the requirement of Pharmaceutical sectors. The course should strengthen the professional and ethical attitude, effective communication skills, teamwork skills, multidisciplinary approach, and an ability to relate pharmaceutical sciences issues to broader social context.

Course Outcome:

To provide the detail knowledge and various aspects on the theoretical background in the field of pharmaceutical sciences and the ability to apply them in research and development, and in drug discovery field. The course must focus on individual student for industry in the domain of their subject specialization like research methodology, formulation development strategy and key formulation considerations, evaluations methods, in vitro and in vivo experiments, Regulatory Affairs, GMP, and Statistical Evaluation of data.

Curriculum for Master of Pharmacy (M.Pharm)- PHARMACEUTICS

Course of study for M. Pharm (Pharmaceutics) I & II Semester

Course Code	Course	Credit Hours	Credit Points	Hrs./week	Marks
Semester I					
MPH101T	Modern Pharmaceutical Analytical Techniques	4	4	4	100
MPH102T	Drug Delivery System	4	4	4	100
MPH103T	Modern Pharmaceutics	4	4	4	100
MPH104T	Regulatory Affair	4	4	4	100
MPH105P	Pharmaceutics Practical I	12	6	12	150
-	Seminar/Assignment	7	4	7	100

Total		35	26	35	650
Semester II					
MPH201T	Molecular Pharmaceutics (Nano Tech and Targeted DDS)	4	4	4	100
MPH202T	Advanced Biopharmaceutics & Pharmacokinetics	4	4	4	100
MPH203T	Computer Aided Drug Delivery System	4	4	4	100
MPH204T	Cosmetic and Cosmeceuticals	4	4	4	100
MPH205P	Pharmaceutics Practical II	12	6	12	150
-	Seminar/Assignment	7	4	7	100
Total		35	26	35	650

Course of study for M. Pharm. III & IV Semester
(Common for All Specializations)

Course Code	Course	Credit Hours	Credit Points
MRM 301T	Research Methodology and Biostatistics*	4	4
-	Journal club	1	1
-	Discussion / Presentation (Proposal Presentation)	2	2
-	Research Work	28	14
Total		35	21

Course Code	Course	Credit Hours	Credit Points
-	Journal Club	1	1
-	Research Work	31	16
-	Discussion/Final Presentation	3	3
Total		35	20

Master of Pharmacy (M.Pharm)- PHARMACOLOGY

Course Objective:

The focus of the course is on understanding of drug action into key stages in preclinical and clinical research studies, evaluate current drug information in the delivery of pharmaceutical care and assure in regard to drug usage and their adverse effects. The students will gain adequate knowledge of professional and ethical responsibilities in clinical and non-clinical laboratory as required by regulatory bodies and to develop an ability to work on multidisciplinary tasks in the area pharmaceutical and its allied field.

Course Outcome:

The course has a broad relevance from its importance in the diagnosis and treatment of diseases. Student will learn anatomy and physiology of human system which is required to understand the pathophysiology of diseases and mechanisms of action of various drugs. This relates to research aspects of pharmacological screening and development of newer animal models for drug development process. Students will gain knowledge in biochemical, cellular and molecular techniques, applicable in pharmaceutical and biotechnology research industries as well as in research laboratories. They will also acquire knowledge in the fields of pharmacovigilance, in-vivo drug interactions, clinical trials and toxicity studies during drug discovery process and lifelong expertise can be developed with knowledge in pharmacological and toxicological research.

Curriculum for Master of Pharmacy (M.Pharm)- PHARMACOLOGY

Course of study for M. Pharm (Pharmacology) I & II Semester

Course Code	Course	Credit Hours	Credit Points	Hrs./wk	Marks
Semester I					
MPL101T	Modern Pharmaceutical Analytical Techniques	4	4	4	100
MPL102T	Advanced Pharmacology-I	4	4	4	100
MPL 103T	Pharmacological and Toxicological Screening Methods-I	4	4	4	100
MPL104T	Cellular and Molecular Pharmacology	4	4	4	100
MPL105P	Pharmacology Practical I	12	6	12	150
-	Seminar/Assignment	7	4	7	100
Total		35	26	35	650
Semester II					
MPL201T	Advanced Pharmacology II	4	4	4	100
MPL202T	Pharmacological and Toxicological Screening Methods-II	4	4	4	100
MPL203T	Principles of Drug Discovery	4	4	4	100
MPL204T	Experimental Pharmacology practical- II	4	4	4	100
MPL205P	Pharmacology Practical II	12	6	12	150
-	Seminar/Assignment	7	4	7	100
Total		35	26	35	650

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Course Code	Course	Credit Hours	Credit Points
MRM 301T	Research Methodology and Biostatistics*	4	4
-	Journal club	1	1
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