

**SRM COLLEGE OF PHARMACY
SRM UNIVERSITY**

SRM NAGAR
KATTANKULATHUR 603 203

**REGULATIONS & SYLLABUS FOR THE
MASTER OF PHARMACY DEGREE COURSE
NEW REGULATIONS - 2009**

In exercise of the powers conferred by the Bye-laws of SRM University, the Academic Council of the University hereby makes the following regulations :

Short Title and Commencement

The regulations may be called "THE REGULATIONS FOR THE MASTER OF PHARMACY DEGREE COURSE OF SRM UNIVERSITY, SRM NAGAR, KATTANKULATHUR 603 203

These regulations shall be deemed to come into force from the academic year 2009-2010. These regulations are subject to such modifications as may be approved by the Academic Senate from time to time

Master of Pharmacy approved by the academic council meeting held on 17th April 2009, to be effective from the Academic Session 2009-2010 and applicable to all branches of M. Pharmacy

1. Eligibility

- 1.1 Minimum academic qualifications required for admission to M.Pharmacy Course is Bachelor's Degree in Pharmacy (B.Pharm) from recognized University with atleast 55% marks or above in aggregate of I, II, III and IV year.
- 1.2 Candidates having arrear in previous semester are not eligible for admission or should have cleared it at the time of admission.

2. Age

Should have completed 21 years on or before the first day of October of the year of admission.

3. Programme : Master of Pharmacy in the following Branches :

4. Eligibility

Candidate who has passed B.Pharmacy examination from any college Approved by the PCI are eligible.

5. Registration

A candidate will be registered at the college after submission of the following :

- i) Admit Card
- ii) Copy of fees receipt
- iii) All Original Certificate
- iv) B.Pharmacy Transfer Certificate
- v) PCI Registration Certificate

6. Semester Duration

The duration of the Master of Pharmacy Degree Course shall be two academic years comprising four semesters.

No. of apperance - 6 attempts over and above the duration of the course, the candidate will automatically loose his candidature.

7. Commencement of the Course

The Academic year for M.Pharmacy Course shall commence from 1st July of the Academic year.

8. Cut off Date for admission to the Examination

Cut off date - 31st July

9. Medium of Instruction

English shall be the medium of instruction for all subjects of study and examination will be conducted only in English.

10. Curriculum

The curriculum and the syllabus for the course shall be as prescribed by the Academic Council of the University and as may be modified from time to time.

11. Working Days in an Academic Year

Each semester shall consist of not less than 90 working days.

12. Attendance

- 12.1 All students must attend all the lecture and practical classes and should have a minimum of 80% attendance of the classes actually held.

- 12.2 A student with less than 80% attendance of the lectures and practical separately in each subject in a semester shall be detained from appearing in the university examination.
- 12.3 A student detained due to lack of attendance has to take up the course in the same semester when it is offered.

13. Semester Duration

- | | | |
|-------------------|---|-----------------|
| * First Semester | - | July – December |
| * Second Semester | - | Jan – June |
| * Third Semester | - | July – December |
| * Fourth Semester | - | Jan – June |

14. Semester Examination

- 14.1 Semester Examination shall be held as per schedule given in December and June for odd and even semesters respectively.
- 14.2 Candidates shall appear in the examination of their uncleared subject (Failed) at the next semester examination.
- 14.3 A candidate after being admitted has not taken up the course for some reason is the other will be entitled to take up the course only when its being offered (Eg. if the candidate has not take up the remember then he/she will be eligible to take up the course along with one next batch only when the 1st semester is offered).
- 14.4 The practical examination shall be conducted by the external examiner and one Internal examiner.
- 14.5 Each student must clear the theory and practical separately.
- 14.6 There is no re-valuation or re-totalling.
- 14.7 Every student must submit three copies of printed hard bound copies of the thesis duly signed by the guide forwarded through the Head of the Department for valuation at the end of the fourth semester i.e., by 10th May
- 14.8. The examiner shall jointly assess the thesis and award the marks. In case the candidate fails to secure the minimum pass marks on the combined performance of the thesis and viva voce he/she has to revive the thesis as suggested by the examiners and resubmit a fresh thesis within one month.
- 14.9 The minimum pass marks shall be 50% in each Theory / Practical / Thesis.

15. Promotion

- 15.1 A student who fails to secure 80% of attendance in any course during a particular semester will have to seek re-admission in the same Semester and complete the stipulated percentage of attendance after which will be eligible for appearing for the university examination.
- 15.2 If a candidate fails to secure a pass in a particular course it is mandatory that he / she shall register for the examination in that course during the next semester when examination is conducted in that course. He / she should continue to register and reappear for the examination till he/she secures a pass. The internal assessment marks obtained by the candidate in the first attempt shall be retained and considered and valid for the subsequent attempts. Any student willing to improve the sessional marks can write an improvement sessional examination.

16. Eligibility for the Award of Master Degree

- 16.1 A student shall be declared eligible if he/she has successfully completed the course requirement and passed all the prescribed examination in all the four semesters within a maximum period of 5 years from the first semester to which the candidate was admitted
- 16.2 No disciplinary action is pending.

17. Award of Grades

All assessment of a course will be done on absolute marks basis. However, for the purpose of reporting the performance of a candidate, letter grades, each carrying certain points, will be awarded as per the range of total marks (out of 100) obtained by the candidate, as detailed below :

Range of Total Marks	Letter Grade	Grade Points
90 to 100	S	10
80 to 89	A	9
70 to 79	B	8
60 to 69	C	7
50 to 59	D	6
0 to 49	F	0
Incomplete	I	0
Withdrawn	W	0

“F” denotes failure in the course.

“I” denotes incomplete and hence prevented from writing the semester examination or Absent.

“W” denotes withdrawal from the course. After results are declared, Grade sheets will be issued to each student, containing the list of courses enrolled during semester and grade scored, the grade point average (GPA) for the semester and the Cumulative Grade Point Average (CGPA) of all courses enrolled from first semester onwards.

GPA is the ratio of the sum of the products of the number of credits of courses registered and the points corresponding to the grades scored in those courses, taken for all the courses, to the sum of the number of credits of all the courses in the semester.

$$\text{CGPA} = \frac{\sum(C_i \times \text{GPI})}{\sum C_i}$$

CGPA will be calculated in a similar manner, considering all the courses enrolled from first semester.

- | | | | |
|----------------------|-------------|-----------------------|-------------|
| a) Theory | - 4 credit | b) Practicals | - 3 credits |
| c) Project - Phase I | - 4 credits | d) Project - Phase II | - 8 credits |

18. Classification of the Degree Awarded

- 18.1 A candidate who qualifies for the award of the degree having passed the examination in all the courses in first appearance securing a CGPA of not less than 8.00 shall be declared to have passed the examination in First Class with Distinction.
- 18.2 A candidate who qualifies for the award of the Degree having passed the examination in all the courses within four semester securing a CGPA of not less than 6.5 shall be declared to have passed the examination in First Class.
- 18.3 All other candidates (not covered in clauses 18.1 & 18.2) who qualify for the award of the degree (vide clause 17) shall be declared to have passed the examination in Second Class.
- 18.4 A candidate who is absent in a semester examination in a course/project work after having registered for the same shall be considered to have appeared in that examination for the purpose of classification.

19. Provision for withdrawal from Examination

- 19.1 A candidate may, for valid reasons, be granted permission to withdraw from appearing for the examination in any course of any semester examination.
- 19.2 Withdrawal application shall be valid only if the candidate is otherwise eligible to write the examination and if it is made within the prescribed number of days prior to the commencement of the examination of that course and also recommended by the Head of the Department and the Head of the institution.
- 19.3 Withdrawal shall not be considered as an appearance for the eligibility of a candidate for First Class with Distinction.

20. Temporary break of study from a Programme

- 20.1 A candidate is not normally permitted to temporarily break the study. However if a candidate intends to temporarily discontinue the programme in the middle for valid reasons (such as accident or hospitalization due to prolonged ill health) and to rejoin the programme in a later semester he/she shall apply to the Head of the Institution in advance but not later than the last date for registering for the semester examinations of the semester in question. Such applications should be routed through the Head of the Department and the Dean of the Faculty, stating the reasons for break of study.
- 20.2 The candidate permitted to rejoin the programme after the break shall be governed by the rules and regulations in force at the time of rejoining.
- 20.3 The duration specified for passing all the courses for the purpose of classification vide Clause 16.1 shall be increased by the period of such break of study permitted.
- 20.4 The total period for completion of the programme reckoned from the commencement of first semester to which the candidate was admitted shall not exceed the maximum period specified in clause irrespective of the period of break of study in order than he/she may be eligible for the award of the degree (vide clause 16)
- 20.5 If any student is detained for want of requisite attendance, progress and good conduct, the period spent in that semester shall not be considered as permitted "Break of Study" and Clause 20 is not applicable for this case.

21. Discipline

Every student is required to observe disciplined and decorous behaviour both inside and outside the college and not to indulge in any activity which will tend to bring down the prestige of the University / College.

22. Revision of Regulation and Curriculum

The University may from time to time revise, amend or change the regulations, scheme of examinations and syllabi as found necessary.

23. Question Paper Pattern (All Branches)

Theory

Time = 3 Hours

Total Marks = 75

SECTION - A

Answer All the Questions

All Questions Carry Equal Marks

5 x 5 = 25 Marks

1. Unit - I
2. Unit - II
3. Unit - III
4. Unit - IV
5. Unit - V

SECTION - B

Answer All the Questions Selecting One From Each Unit

All Questions Carry Equal Marks

5 x 10 = 50 Marks

- | | | |
|----------------|------|----------------|
| 6. Unit - I | (or) | 7. Unit - I |
| 8. Unit - II | (or) | 9. Unit - II |
| 10. Unit - III | (or) | 11. Unit - III |
| 12. Unit - IV | (or) | 13. Unit - IV |
| 14. Unit - V | (or) | 15. Unit - V |

Practical

Time = 6 Hours

Max. Marks = 75

- | | |
|------------------|----------|
| I Synopsis | 15 Marks |
| II Experiment I | 30 Marks |
| II Experiment II | 20 Marks |
| IV Viva | 10 Marks |

Internal Assessment**Theory:**

Internal Assessment
Attendance
Assignment

Max. Marks = 25

15 Marks
5 Marks
5 Marks

Practical

I Synopsis
II Experiment I
III Experiment II
IV Viva

5 Marks
10 Marks
5 Marks
5 Marks

Total Marks = 200

Branch - I	Pharmaceutical Biotechnology
Branch - II	Pharmaceutical Analysis
Branch - III	Pharmaceutical Chemistry
Branch - IV	Pharmaceutics
Branch - V	Pharmacology
Branch - VI	Pharmacognosy
Branch - VII	Pharmacy Practice
Branch - VIII	Quality Assurance and Regulatory Affairs

3.1 Branch - I Pharmaceutical Biotechnology**SEMESTER - I**

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPA 112/113	Modern Analytical Technique - I	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPB 114/115	Pharmaceutical Microbiology	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPB 116/117	Principles of Molecular Cell Biology	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPB 118/119	Enzyme & Immuno technology	L3	54	3	75	25	100
		P4	72	6	75	25	100

SEMESTER - II

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPA 122/123	Modern Analytical Technique - I	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPB 124/125	Microbial Fermentation & Bioprocess Technology	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPB 126/127	Animal Cell Biotechnology	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPB 128/129	Genetic Engg. & Recombinant DNA Technology	L3	54	3	75	25	100
		P4	72	6	75	25	100

SEMESTER - III

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPB 131	Project Phase - I		16	1	--	--	100

SEMESTER - IV

Code No.	Subject Title	Thesis	Seminar and Viva	Total
MPB 141	Project Phase - II	150	50	200

3.2 Branch - II Pharmaceutical Analysis**SEMESTER - I**

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPA 110/111	Advanced Pharmaceutical Analytical Techniques - I	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPA 114/115	Modern Pharmaceutical Analysis - I	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPA 116/117	Quality Assurance	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPA 118/119	Essentials of Food Analysis	L3	54	3	75	25	100
		P4	72	6	75	25	100

SEMESTER - II

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPA 120/121	Advanced Pharmaceutical Analytical Techniques - II	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPA 124/125	Modern Pharmaceutical Analysis - II	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPA 126/127	Quality Control of Cosmetics	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPA 128/129	Biological and Phytochemical Analysis	L3	54	3	75	25	100
		P4	72	6	75	25	100

SEMESTER - III

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPA 131	Project Phase - I		16	1	--	--	100

SEMESTER - IV

Code No.	Subject Title	Thesis	Seminar and Viva	Total
MPA 141	Project Phase - II	150	50	200

Branch - III Pharmaceutical Chemistry**SEMESTER - I**

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPA 110/111	Advanced Pharmaceutical Analytical Techniques - I	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPC 114/115	Advanced Organic Chemistry - I	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPC 116/117	Medicinal Chemistry - I	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPC 118/119	Phyto pharmacy-I	L3	54	3	75	25	100
		P4	72	6	75	25	100

SEMESTER - II

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPA 120/121	Advanced Pharmaceutical Analytical Techniques - II	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPC 124/125	Advanced Organic Chemistry - II	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPC 126/127	Medicinal Chemistry - II	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPC 128/129	Phyto pharmacy - II	L3	54	3	75	25	100
		P4	72	6	75	25	100

SEMESTER - III

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPC 131	Project Phase - I		16	1	--	--	100

SEMESTER - IV

Code No.	Subject Title	Thesis	Seminar and Viva	Total
MPC 141	Project Phase - II	150	50	200

Branch - IV Pharmaceutics**SEMESTER - I**

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPA 112/113	Modern Analytical Technique - I	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPP 114/115	Pharmaceutical Dosage Forms-I	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPP 116/117	Biopharmaceutics & Pharmacokinetics	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPP 118/119	Advanced Drug Delivery System - I	L3	54	3	75	25	100
		P4	72	6	75	25	100

SEMESTER - II

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPA 122/123	Modern Analytical Technique - II	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPP 124/125	Pharmaceutical Dosage Forms - II	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPP 126/127	Clinical Pharmacokinetics	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPP 128/129	Advanced Drug Delivery System-II	L3	54	3	75	25	100
		P4	72	6	75	25	100

SEMESTER - III

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPP 131	Project Phase - I		16	1	--	--	100

SEMESTER - IV

Code No.	Subject Title	Thesis	Seminar and Viva	Total
MPP 141	Project Phase - II	150	50	200

Branch - V Pharmacology**SEMESTER - I**

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPA 112/113	Modern Analytical Technique - I	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPL 114/115	General Pharmacology	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPL 116/117	Advanced Pharmacology-I	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPL 118/119	Drug Design & Molecular modelling - I	L3	54	3	75	25	100
		P4	72	6	75	25	100

SEMESTER - II

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPA 122/123	Modern Analytical Technique - II	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPL 124/125	General Pharmacology-II	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPL 126/127	Advanced Pharmacology-II	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPL 128/129	Drug Design & Molecular Modelling - II	L3	54	3	75	25	100
		P4	72	6	75	25	100

SEMESTER - III

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPL 131	Project Phase - I		16	1	--	--	100

SEMESTER - I V

Code No.	Subject Title	Thesis	Seminar and Viva	Total
MPL 141	Project Phase - II	150	50	200

Branch - VI Pharmacognosy**SEMESTER - I**

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPA 110/111	Advanced Pharmaceutical Analytical Techniques - I	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPG 114/115	Advanced Pharmacognosy	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPG 116/117	Herbal Drug Design - I	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPG 118/119	Biogenesis & Phytochemistry	L3	54	3	75	25	100
		P4	72	6	75	25	100

SEMESTER - II

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPA 120/121	Advanced Pharmaceutical Analytical Techniques - II	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPG 124/125	Advanced Pharmacognosy-II	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPG 126/127	Herbal Drug Design - II	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPG 128/129	Medicinal Plant Biotechnology	L3	54	3	75	25	100
		P4	72	6	75	25	100

SEMESTER - III

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPG 131	Project Phase - I		16	1	--	--	100

SEMESTER - IV

Code No.	Subject Title	Thesis	Seminar and Viva	Total
MPG 141	Project Phase - II	150	50	200

Branch - VII Pharmacy Practice

SEMESTER - I

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPA 112/113	Modern Analytical Techniques - I	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPR 114/115	Pharmaco therapeutics-I	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPR 116/117	Biopharma ceutics & Pharmacokinetics	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPR 118/119	Clinical Pharmacy Practice	L3	54	3	75	25	100
		P4	72	6	75	25	100

SEMESTER - II

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPA 122/123	Modern Analytical Technique - II	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPR 124/125	Pharmacothera peutics - II	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPR 126/127	Clinical Pharmacokinetics	L3	54	3	75	25	100
		P4	72	6	75	25	100
MPR 128/129	Hospital and Community Pharmacy & Clinical Research	L3	54	3	75	25	100
		P4	72	6	75	25	100

SEMESTER - III

Code No.	Subject Title	Hours of study per week	Total hours per Semester	Duration of Examination	Marks allotted		
					University	I.A	Total
MPR 131	Project Phase - I		16	1	--	--	100

SEMESTER - IV

Code No.	Subject Title	Thesis	Seminar and Viva	Total
MPR 141	Project Phase - II	150	50	200