

JSS UNIVERSITY

SRI SHIVARATHREESHWARA NAGAR

MYSORE – 570 015

REGULATIONS

MASTER OF PHARMACY (M.PHARM) COURSE

2008

Master of Pharmacy (M.Pharm) course

SHORT TITLE AND COMMENCEMENT

These regulations shall be called “THE REGULATIONS FOR THE M. PHARM COURSE OF THE JSS UNIVERSITY, MYSORE”. They shall come into force from the academic year 2008-2009 session. The regulation and syllabi are subject to modifications by the Academic Council from time to time.

SECTION I - REGULATIONS

1. ELIGIBILITY

A candidate who has passed B.Pharm degree examination of any recognized University and has secured not less than 55% of the maximum marks (aggregate of four years) prescribed for the qualification examination shall be eligible for the admission to the M.Pharm course.

For SC / ST candidates the prescribed percentage of marks shall be 50% of the maximum marks in the qualifying examinations.

1.1 Eligibility certificate

The Candidate who has passed the qualifying examination as specified in Regulation No.1 above from any other Universities other than the JSS University, before seeking admission to any one of the constituent colleges shall obtain an Eligibility Certificate from the University by remitting the prescribed fees along with application form, which shall be downloaded from the University web site. The candidates should obtain Eligibility Certificate before admission. Due to some unavoidable reason, if the candidate got admission only on the last day of the cut-off date then the candidate shall directly go and join the College without Eligibility Certificate. The institution shall admit such candidates without Eligibility Certificate with a condition that the Eligibility Certificate should be produced within 15 days.

1.2 Physical fitness certificate

Every candidate before admission to the course shall submit to the Principal of the Institution a Certificate of Medical Fitness from an authorized Medical Officer that the candidate is physically fit to undergo the academic course and does not suffer from any disability or contagious disease.

2. REGISTRATION

A Candidate admitted to the Master of Pharmacy course in any one of the constituent colleges of the JSS University, Mysore, shall submit the prescribed application form for registration duly filled along with prescribed fee and declaration in the format, to this University through the constituent colleges within 60 days from the cut-off date prescribed for Master of Pharmacy course for admission.

3. DURATION OF THE COURSE

The course of study including submission of dissertation shall be of 24 months (two years) duration from the commencement of academic term. The study of M.Pharm course shall be of annual system that includes M.Pharm part-I, extending for twelve months from the commencement of academic term and M.Pharm part-II of twelve months duration. At the end of M.Pharm part-I, there shall be a university examination. At the end of M.Pharm Part-II, the candidate shall submit a dissertation on a research project.

No exemption shall be given from this period of study and training for any other experience gained prior to the admission to the course.

4. MEDIUM OF INSTRUCTION

English shall be the medium of instruction for all the subjects of study for examinations of the M. Pharm course.

5. WORKING DAYS IN AN ACADEMIC YEAR

Each academic year shall consist of not less than 220 working days.

6. COURSE OF STUDY

Table-I Branches in M.Pharm course

Sl.No.	Branch	Code
1	Industrial Pharmacy	MIP
2	Pharmaceutical Analysis	MPA
3	Pharmaceutical Biotechnology	MBT
4	Pharmaceutical Chemistry	MPC
5	Pharmaceutics	MPH
6	Pharmacognosy	MPG
7	Pharmacology	MPL
8	Phytopharmacy and Phytomedicine	MPM
9	Pharmacy Practice	MPP
10	Pharmaceutical Quality Assurance	MQA
11	Pharmaceutical Regulatory Affairs	MRA
12	Clinical Practice and Research	MCP

Table-II: Subjects to be studied in different branches of M.Pharm course

Sl. No.	Branch of specialization	Paper	Name of the Subject	Code
1	Industrial Pharmacy	I	Modern Analytical Techniques	MAT01
		II	Advanced Industrial Pharmacy	MIP02
		III	Biopharmaceutics & Pharmacokinetics	MIP03
		IV	Advances in Drug Delivery Systems	MIP04
2	Pharmaceutical Analysis	I	Modern Analytical Techniques	MAT01
		II	Food and Cosmetic Analysis	MPA02
		III	Advanced Pharmaceutical Techniques	MPA03
		IV	Quality Control and Quality Assurance	MPA04
3	Pharmaceutical Biotechnology	I	Modern Analytical Techniques	MAT01
		II	Microbial and Cellular Biology	MBT02
		III	Bioprocess Technology	MBT03
		IV	Advances Pharmaceutical Biotechnology	MBT04
4	Pharmaceutical Chemistry	I	Modern Analytical Techniques	MAT01
		II	Advanced Organic Chemistry	MPC02
		III	Advanced Medicinal Chemistry	MPC03
		IV	Natural Products of Medicinal Interest	MPC04
5	Pharmaceutics	I	Modern Analytical Techniques	MAT01
		II	Advanced Pharmaceutics	MPH02
		III	Biopharmaceutics and Pharmacokinetics	MPH03
		IV	Advances in Drug Delivery Systems	MPH04
6	Pharmacognosy	I	Modern Analytical Techniques	MAT01
		II	Advanced Pharmacognosy	MPG02
		III	Medicinal Plant Biotechnology	MPG03
		IV	Natural Product Chemistry	MPG04

7	Pharmacology	I	Modern Analytical Techniques	MAT01
		II	Advanced Pharmacology	MPL02
		III	Pharmacological & Toxicological Screening Methods	MPL03
		IV	Drug Design and Molecular Pharmacology	MPL04
8	Phytopharmacy and Phytomedicine	I	Modern Analytical Techniques	MAT01
		II	Advanced Pharmacognosy and Phytochemistry	MPM02
		III	Herbal Drug Development and Standardization	MPM03
		IV	Indian Systems of Medicine	MPM04
9	Pharmacy Practice	I	Clinical Pharmacy Practice	MPP01
		II	Pharmacotherapeutics-I	MPP02
		III	Pharmacotherapeutics-II	MPP03
		IV	Hospital & Community Pharmacy and Clinical Research	MPP04
10	Pharmaceutical Quality Assurance	I	Modern Analytical Techniques	MAT01
		II	Pharmaceutical Technology and Validation	MQA 02
		III	Advanced Pharmaceutical Techniques	MQA 03
		IV	Quality Control and Quality Assurance	MQA 04
11	Pharmaceutical Regulatory Affairs	I	Current Good Manufacturing Practices (cGMP) and Documentation	MRA01
		II	Pharmaceutical Validation	MRA02
		III	Quality Management systems	MRA03
		IV	International Regulatory Requirements	MRA04

12	Clinical practice and Research	I	Clinical Pharmacy	MCP01
		II	Clinical Development and Regulations	MCP02
		III	Clinical Research	MCP03
		IV	Pharmacotherapeutics	MCP04
		V	Research Methodology and Biostatistics	MCP05

7. ATTENDANCE AND MONITORING PROGRESS OF STUDIES

- i. Candidate pursuing M.Pharm Course shall study in the concerned department of the institution for the entire period as a full time student. No candidate is permitted to work as an employee in any laboratory/college/industry/ pharmacy, etc., while studying postgraduate course.
- ii. Each year shall be taken as a unit for the purpose of calculating attendance.
- iii. Every student shall attend symposia, seminars, conferences, journal review meetings and lectures during each year as prescribed by the department/college/university and not absent himself/herself without valid reason
- iv. Candidate who has put in a minimum of 80% of attendance in the theory and practical assignments separately shall be permitted to appear for M.Pharm part-I examination.
- v. Candidate who has put in a minimum of 80% of attendance in M.Pharm part -II shall only be eligible to submit the dissertation.
- vi. Any student who fails to complete the course in the manner stated above shall not be permitted to appear for the University examinations.
- vii. There shall be no condonation of lack of attendance in Post-Graduate courses.
- viii. Every candidate shall maintain a laboratory work diary and record of his /her participation in the training programmes conducted by the department such as journal reviews, seminars, etc. The work diary/record shall be scrutinised and certified by the Head of the Department and Head of the Institution.

8. EXAMINATION

There shall be an examination for M.Pharm part-I at the end of one academic year. For M.Pharm Part-II, the examination shall be an evaluation of dissertation and viva-voce at the end of the academic year.

9. SCHEME OF EXAMINATION

A. Sessional Examination

There shall be minimum of three sessional examinations in each subject of specialization conducted by the colleges at regular intervals, both in theory and in practical which include seminars.

The sessional marks shall be awarded out of a maximum of 50 for theory and practical as follows:

Theory

- | | | |
|------------------------|----------------------------------|--------------------|
| a) Written examination | : 30 marks (average of best two) | 1.5 Hours Duration |
| b) Seminar | : 20 marks | |
| Total | : 50 marks | |

Practical

a) Practical examination	: 30 marks (average of best two)	04 Hours Duration
b) Lab work	: 20 marks	
Total	: 50 marks	

The candidates are required to score a minimum of 50% marks in each of the subjects (Theory and practicals separately) in the sessional examination to be eligible to appear for annual university examination in the respective subject.

B. University Examination (M.Pharm part-I)

There shall be two examinations (annual and supplementary) conducted by the university. There shall be four theory papers in the university examination. Each theory paper shall be of 3 hours duration carrying 100 marks each. The particulars of marks of Papers I, II, III and IV for all the branches are given in Table-III. There shall be four practical examinations in all the respective branches. The duration of each practical examination is of six hours which carries 100 marks each.

C. Criteria for Pass

M.Pharm Part I

A candidate who secures 50% of marks in each subject in theory and practical separately including Sessional marks and university examination marks together shall be declared to have passed in M.Pharm part I examination. Candidate, who fails in theory or practical exam in a subject, shall appear for both theory and practical in the subsequent examination in that subject.

Candidates who fail in M.Pharm part-I examination shall be permitted to continue M.Pharm part-II course and appear for the examination. However, the results of M. Pharm part-II of such candidates shall not be declared unless the candidate passes M.Pharm part - I examination.

M.Pharm. Part-II

Dissertation

- i. Every candidate pursuing M. Pharm course is required to carry out work on a selected research project under the guidance of a recognized postgraduate teacher. The results of such a work shall be submitted in the form of a dissertation.
- ii. The dissertation is aimed to train a postgraduate student in research methods and techniques. It includes identification of the problem, formulation of a hypothesis, review of literature, getting acquainted with recent advances, designing of a research study, collection of data, critical analysis, and comparison of results and drawing conclusions.

- iii. The dissertation should be written under the following headings
 1. Introduction
 2. Aims or Objectives of study
 3. Review of literature
 4. Material and Methods
 5. Results
 6. Discussion
 7. Conclusion
 8. Summary
 9. References
 10. Tables
 11. Annexure
- iv. The written text of dissertation shall be not less than 50 pages and shall not exceed 150 pages excluding references, tables, questionnaires and other annexure. It should be neatly typed with double line spacing on one side of the bond paper (A4size, 8.27" x 11.69") and bound properly. Spiral binding should be avoided. The dissertation shall be certified by the guide and co-guide if any, Head of the Department and Head of the Institution. The dissertation shall be submitted at least one month before the end of M. Pharm Part II term.
- v. A guide shall be a full time post graduate teacher of the institution for supervision of dissertation work. However a co - guide can be opted wherever required.

D. Submission of Dissertation

Three copies of the dissertation duly certified by the guide, head of the department and the principal shall be submitted to the university for evaluation.

E. Viva-Voce Examination

The Viva-Voce examination shall aim at assessing the depth of knowledge, logical reasoning, confidence and oral communication skills.

The Viva-Voce examination shall be held after the submission of dissertation. If any candidate fails to submit the dissertation on or before the date prescribed, his/her Viva-Voce shall be conducted during the subsequent examination which shall not be earlier than six months from the date fixed in the first instance.

Examiners: There shall be at least two examiners in each branch of specialization, out of them one shall be external examiner and the other one shall be the internal examiner (the guide).

F. Distribution of Marks for M. Pharm Part-II Examination

Total- 200 marks, Dissertation-150 marks, Viva- Voce-50 marks.

The dissertation and viva-voce shall be valued, by the examiners together appointed by the university.

G. Minimum marks for passing M.Pharm Part-II

The minimum marks for pass in M.Pharm Part II shall be 50% of the marks of dissertation and viva voce and an aggregate of 100 marks out of 200 marks.

H. Class shall be declared on the basis of the aggregate of marks scored in M.Pharm part-I and part-II as follows:

- | | | |
|-----|-------------------------------|------------------|
| (1) | 75% and above | -- Distinction. |
| (2) | 60% & above but less than 75% | -- First class. |
| (3) | 50% & above but less than 60% | -- Second class. |

I. Revaluation / Retotaling of answer paper

There shall be no revaluation of the answer papers of failed candidates in any Post-Graduate examination. However, the failed candidate shall apply for re-totaling through their College.

10. NUMBER OF APPEARANCE(S)

A Candidate registered for Two years M. Pharmacy Post-Graduate Degree course must qualify in the Examinations within four years of the date of his / her admission.

11. DURATION FOR COMPLETION OF THE COURSE OF STUDY

The duration for the completion of the course shall be fixed as double the time of the course and the students have to pass within the said period otherwise they have to get fresh admission.

12. RE-ADMISSION AFTER BREAK OF STUDY

Re-admission shall be made as per the University Common Regulations duly condoning the break of study for all courses.

13. AUTHORITY TO ISSUE TRANSCRIPT

The Registrar shall be the Authority for issuing Transcript of marks after remitting the prescribed fee to the University.

M.PHARM PART – I- EXAMINATION

Table – III: Scheme of Examination for MIP/ MPA/MBT/MPC/ MPH/ MPG/ MPL/ MPM/ MPP/ MQA/ MRA Branches

Subject	Theory Examination			Total Marks	Practical Examination			Total Marks
	Sessional Marks	Annual			Sessional Marks	Annual		
		Duration (Hrs)	Marks			Duration (Hrs)	Marks	
Paper – I	50	03	100	150	50	06	100	150
Paper – II	50	03	100	150	50	06	100	150
Paper – III	50	03	100	150	50	06	100	150
Paper – IV	50	03	100	150	50	06	100	150
Total				600				600

Table – IV: Scheme of Examination for MCP Branch

Subject	Theory Examination			Total Marks	Practical Examination			Total Marks
	Sessional Marks	Annual			Sessional Marks	Annual		
		Duration (Hrs)	Marks			Duration (Hrs)	Marks	
Paper – I	50	03	100	150	50	06	100	150
Paper – II	50	03	100	150	---	---	---	150
Paper – III	50	03	100	150	50	06	100	150
Paper – IV	50	03	100	150	50	06	100	150
Paper - V	50	03	100	150	---	---	---	---
Total				750				450

Table – V: Consolidated marks for M.Pharm Part – I and Part – II

Part - I	Part – II	Grand Total
1200	200	1400