COURSE STRUCTURE AND SYLLABUS For M. PHARM

MPH R 18 Regulations

(Applicable for batches admitted from 2018-2019)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA KAKINADA - 533 003, Andhra Pradesh, India







असाधारण

EXTRAORDINARY WITH III — NOTE 4

PART III—Section 4 प्राधिकार से प्रकाशित

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PHARMACY COUNCIL OF INDIA NOTIFICATION

New Delhi, the 10th December, 2014

The Master of Pharmacy (M.Pharm) Course Regulations, 2014

No. 14-136/ 2014-PCI.—In exercise of the powers conferred by Sections 10 and 18 of the Pharmacy Act, 1948 (8 of 1948), the Pharmacy Council of India, with the approval of the Control Government hereby makes the following regulations; namely—



<u>CHAPTER –I:REGULATIONS</u>

1. Short Title and Commencement

These regulations shall be called as "The Revised Regulations for the Master of Pharmacy (M. Pharm.)Degree Program - Credit Based Semester System (CBSS) of the Pharmacy Council of India, New Delhi". They shall come into effect from the Academic Year 2016-17. The regulations framed are subject to modifications from time to time by the authorities of the university.

2. Minimum qualification for 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.)

3. Duration of the program

The program of study for M.Pharm. shall extend over a period of four semesters (two academic years). The curricula and syllabi for the program shall be prescribed from time to time by Phamacy Council of India, New Delhi.

- 4. Medium of instruction and examinations

 Medium of instruction and examination shall be in English.
- 5. Working days in each semester

Each semestershall consist of not less than 100 working days. The odd semesters shall be conducted from the month of June July to November/December and the even semesters shall be conducted from the month of December January to May June in every calendar year.



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6. Attendance and progress

A candidate is required to put in at least 80% attendance in individual courses considering theory and practical separately. The candidate shall complete the prescribed course satisfactorily to be eligible to appear for the respective examinations.

7. Program/Course credit structure

As per the philosophy of Credit Based Semester System, certain quantum of academic work viz. theory classes, practical classes, seminars, assignments, etc. are measured in terms of credits. On satisfactory completion of the courses, a candidate earns credits. The amount of credit associated with a course is dependent upon the number of hours of instruction per week in that course. Similarly the credit associated with any of the other academic, co/extracurricular activities is dependent upon the quantum of work expected to be put in for each of these activities per week/per activity.

7.1. Credit assignment

7.1.1. Theory and Laboratory courses

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 contact hours of seminars, assignments and research work shall be treated as that of practical courses for the purpose of calculating credits. i.e., the contact hours shall be multiplied by 1/2. Similarly, the contact hours of journal club, research work presentations and discussions with the supervisor shall be considered as theory course and multiplied by 1.

7.2. Minimum credit requirements

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 in Table 14. Courses generally progress in sequence, building competencies and their positioning indicates certain academic maturity on the part of the learners. Learners are expected to follow the semester-wise schedule of courses given in the syllabus.

8. Academic work

A regular record of attendance both in Theory, Practical, Seminar, Assignment, Journal club, Discussion with the supervisor, Research work presentation and Dissertation shall be maintained by the department / teaching staff of respective courses.

9. Course of study

The specializations in M.Pharm program is given in Table 1.

Table – 1: List of M.Pharm. Specializations and their Code

| S. No. | Specialization | Code |
|--------|-----------------------------------|------|
| 1. | Pharmaceutics | MPH |
| 2. | Industrial Pharmacy | MIP |
| 3. | Pharmaceutical Chemistry | MPC |
| 4. | Pharmaceutical Analysis | MPA |
| 5. | Pharmaceutical Quality Assurance | MQA |
| 6. | Pharmaceutical Regulatory Affairs | MRA |
| 7. | Pharmaceutical Biotechnology | MPB |
| 8. | Pharmacy Practice | MPP |
| 9. | Pharmacology | MPL |
| 10. | Pharmacognosy | MPG |

The course of study for M.Pharm specializations shall include Semester wise Theory & Practical as given in Table - 2 to 11. The number of hours to be devoted to each theory and practical course in any semester shall not be less than that shown in Table - 2 to 11.

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Table - 2: Course of study for M. Pharm. (Pharmaceutics)

| Course | Course | Credit | Credit | Hrs./w | Marks |
|---------|------------------------------------------------------------|----------|--------|--------|-------|
| Code | Hours | Points | k | Marks | |
| | Semo | ester I | | | |
| MPH101T | Modern Pharmaceutical | 4 | 4 | 4 | 100 |
| | Analytical Techniques | | | 7 | |
| 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 |
| | Seme | ester II | | | |
| MPH201T | Molecular Pharmaceutics (Nano Tech and Targeted DDS) | 4 | 4 | 4 | 100 |
| MPH202T | Advanced Biopharmaceutics & Pharmacokinetics | 4 | 4 | 4 | 100 |
| МРН203Т | 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 |



Table - 12: Course of study for M. Pharm. III 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 |

^{*} Non University Exam

Table - 13: Course of study for M. Pharm. IV Semester (Common for All Specializations)

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

Table - 14: Semester wise credits distribution

| Semester | Credit Points |
|----------------------------------------------------------------------------------------------------------|----------------------------|
| | 26 |
| II | 26 |
| | 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* |

^{*}Credit Points for Co-curricular Activities

