

Kakatiya University, Warangal



Syllabus for the Bachelor of Pharmacy (B. Pharm) Four Years Course From the academic year 2017-2018 onwards



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Balaji Institute of Pharmaceutical Sciences

Laknepally (V), Narsampet (M)
Warangal (Dt) - 506 331 (T.S)

CHAPTER- I: REGULATIONS

1. Short Title and Commencement

These regulations shall be called as "The Revised Regulations for the B. Pharm. Degree Program (CBCS) of the Pharmacy Council of India, New Delhi". They shall come into effect from the Academic Year 2017-18. The regulations framed are subject to modifications from time to time by Pharmacy Council of India.

2. Minimum qualification for admission

First year B. Pharm:

Candidate shall have passed 10+2 examination conducted by the respective state/central government authorities recognized as equivalent to 10+2 examination by the Association of Indian Universities (AIU) with English as one of the subjects and Physics, Chemistry, Mathematics (P.C.M) and or Biology (P.C.B / P.C.M.B.) as optional subjects individually. Any other qualification approved by the Pharmacy Council of India as equivalent to any of the above examinations.

2.2. B. Pharm lateral entry (to third semester):

A pass in D. Pharm. course from an institution approved by the Pharmacy Council of India under section 12 of the Pharmacy Act.

3. Duration of the program

The course of study for B.Pharm shall extend over a period of eight semesters (four academic years) and six semesters (three academic years) for lateral entry students. The curricula and syllabi for the program shall be prescribed from time to time by Pharmacy 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 December/January to May/June in every calendar year.

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.



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7. Program/Course credit structure

As per the philosophy of Credit Based Semester System, certain quantum of academic work viz. theory classes, tutorial hours, practical classes, 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/extra-curricular activities is dependent upon the quantum of work expected to be put in for each of these activities per week.

Credit assignment

Theory and Laboratory courses

Courses are broadly classified as Theory and Practical. Theory courses consist of lecture (L) and /or tutorial (T) hours, 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 tutorial hours, and a multiplier of half (1/2) for practical (laboratory) hours. Thus, for example, a theory course having three lectures and one tutorial 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.

Minimum credit requirements

The minimum credit points required for award of a B. Pharm. degree is 208. These credits are divided into Theory courses, Tutorials, Practical, Practice School and Project over the duration of eight semesters. The credits are distributed semester-wise as shown in Table IX. Courses generally progress in sequences, 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.

The lateral entry students shall get 52 credit points transferred from their D. Pharm program. Such students shall take up additional remedial courses of 'Communication Skills' (Theory and Practical) and 'Computer Applications in Pharmacy' (Theory and Practical) equivalent to 3 and 4 credit points respectively, a total of 7 credit points to attain 59 credit points, the maximum of I and II semesters.

8. Academic work

A regular record of attendance both in Theory and Practical shall be maintained by the teaching staff of respective courses.



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9. Course of study

The course of study for B. Pharm shall include Semester Wise Theory & Practical as given in Table – I to VIII. The number of hours to be devoted to each theory, tutorial and practical course in any semester shall not be less than that shown in Table – I to VIII.

Table-I: Course of study for semester I

Course code	Name of the course	No. of hours	Tutorial	Credit points
BP101T	Human Anatomy and Physiology I– Theory	3	1	4
BP102T	Pharmaceutical Analysis I – Theory	3	1	4
BP103T	Pharmaceutics I – Theory	3	1	4
BP104T	Pharmaceutical Inorganic Chemistry – Theory	3	1	4
BP105T	Communication skills – Theory *	2	-	2
BP106RBT BP106RMT	Remedial Biology/ Remedial Mathematics – Theory*	2	-	2
BP107P	Human Anatomy and Physiology – Practical	4	-	2
BP108P	Pharmaceutical Analysis I – Practical	4	-	2
BP109P	Pharmaceutics I – Practical	4	-	2
BP110P	Pharmaceutical Inorganic Chemistry – Practical	4	-	2
BP111P	Communication skills – Practical*	2	-	1
BP112RBP	Remedial Biology – Practical*	2	-	1
Total		32/34[§]/36[#]	4	27/29[§]/30[#]

[#]Applicable ONLY for the students who have studied Mathematics / Physics / Chemistry at HSC and appearing for Remedial Biology (RB)course.

[§]Applicable ONLY for the students who have studied Physics / Chemistry / Botany / Zoology at HSC and appearing for Remedial Mathematics (RM)course.

* Non University Examination (NUE)



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Table-II: Course of study for semester II

Course Code	Name of the course	No. of hours	Tutorial	Credit points
BP201T	Human Anatomy and Physiology II – Theory	3	1	4
BP202T	Pharmaceutical Organic Chemistry I – Theory	3	1	4
BP203T	Biochemistry – Theory	3	1	4
BP204T	Pathophysiology – Theory	3	1	4
BP205T	Computer Applications in Pharmacy – Theory *	3	-	3
BP206T	Environmental sciences – Theory *	3	-	3
BP207P	Human Anatomy and Physiology II –Practical	4	-	2
BP208P	Pharmaceutical Organic Chemistry I– Practical	4	-	2
BP209P	Biochemistry – Practical	4	-	2
BP210P	Computer Applications in Pharmacy – Practical*	2	-	1
Total		32	4	29

*Non University Examination (NUE)

Table-III: Course of study for semester III

Course code	Name of the course	No. of hours	Tutorial	Credit points
BP301T	Pharmaceutical Organic Chemistry II – Theory	3	1	4
BP302T	Physical Pharmaceutics I – Theory	3	1	4
BP303T	Pharmaceutical Microbiology – Theory	3	1	4
BP304T	Pharmaceutical Engineering – Theory	3	1	4
BP305P	Pharmaceutical Organic Chemistry II – Practical	4	-	2
BP306P	Physical Pharmaceutics I – Practical	4	-	2
BP307P	Pharmaceutical Microbiology – Practical	4	-	2
BP 308P	Pharmaceutical Engineering –Practical	4	-	2
Total		28	4	24



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Table-IV: Course of study for semester IV

Course code	Name of the course	No. of hours	Tutorial	Credit points
BP401T	Pharmaceutical Organic Chemistry III– Theory	3	1	4
BP402T	Medicinal Chemistry I – Theory	3	1	4
BP403T	Physical Pharmaceutics II – Theory	3	1	4
BP404T	Pharmacology I – Theory	3	1	4
BP405T	Pharmacognosy and Phytochemistry I– Theory	3	1	4
BP406P	Medicinal Chemistry I – Practical	4	-	2
BP407P	Physical Pharmaceutics II – Practical	4		2
BP408P	Pharmacology I – Practical	4	-	2
BP409P	Pharmacognosy and Phytochemistry I – Practical	4	-	2
Total		31	5	28

Table-V: Course of study for semester V

Course code	Name of the course	No. of hours	Tutorial	Credit points
BP501T	Medicinal Chemistry II – Theory	3	1	4
BP502T	Industrial PharmacyI– Theory	3	1	4
BP503T	Pharmacology II – Theory	3	1	4
BP504T	Pharmacognosy and Phytochemistry II– Theory	3	1	4
BP505T	Pharmaceutical Jurisprudence – Theory	3	1	4
BP506P	Industrial PharmacyI – Practical	4	-	2
BP507P	Pharmacology II – Practical	4	-	2
BP508P	Pharmacognosy and Phytochemistry II – Practical	4	-	2
Total		27	5	26


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Table-VI: Course of study for semester VI

Course code	Name of the course	No. of hours	Tutorial	Credit points
BP601T	Medicinal Chemistry III – Theory	3	1	4
BP602T	Pharmacology III – Theory	3	1	4
BP603T	Herbal Drug Technology – Theory	3	1	4
BP604T	Biopharmaceutics and Pharmacokinetics – Theory	3	1	4
BP605T	Pharmaceutical Biotechnology – Theory	3	1	4
BP606T	Quality Assurance –Theory	3	1	4
BP607P	Medicinal chemistry III – Practical	4	-	2
BP608P	Pharmacology III – Practical	4	-	2
BP609P	Herbal Drug Technology – Practical	4	-	2
Total		30	6	30

Table-VII: Course of study for semester VII

Course code	Name of the course	No. of hours	Tutorial	Credit points
BP701T	Instrumental Methods of Analysis – Theory	3	1	4
BP702T	Industrial PharmacyII – Theory	3	1	4
BP703T	Pharmacy Practice – Theory	3	1	4
BP704T	Novel Drug Delivery System – Theory	3	1	4
BP705P	Instrumental Methods of Analysis – Practical	4	-	2
BP706PS	Practice School*	12	-	6
Total		28	5	24

* Non University Examination (NUE)



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Table-VIII: Course of study for semester VIII

Course code	Name of the course	No. of hours	Tutorial	Credit points
BP801T	Biostatistics and Research Methodology	3	1	4
BP802T	Social and Preventive Pharmacy	3	1	4
BP803ET	Elective – 1	3	1	4
I	Pharmaceutical Marketing			
II	Pharmaceutical Regulatory Science			
III	Pharmacovigilance			
IV	Quality Control and Standardizations of Herbals			
V	Computer Aided Drug Design	3	1	4
BP804ET	Elective – 2			
I	Cell and Molecular Biology			
II	Cosmetic Science			
III	Experimental Pharmacology			
IV	Advanced Instrumentation Techniques	12	-	6
V	Dietary Supplements and Nutraceuticals			
BP805PW	Project Work			
Total		24	4	22

Table-IX: Semester wise credits distribution

Semester	Credit Points
I	27/29 ^{\$} /30 [#]
II	29
III	24
IV	28
V	26
VI	30
VII	24
VIII	22
Extracurricular/ Co curricular activities	01*
Total credit points for the program	211/213^{\$}/214[#]

* The credit points assigned for extracurricular and or co-curricular activities shall be given by the Principals of the colleges and the same shall be submitted to the University. The criteria to acquire this credit point shall be defined by the university from time to time.

^{\$}Applicable ONLY for the students studied Physics / Chemistry / Botany / Zoology at HSC and appearing for Remedial Mathematics course.

[#]Applicable ONLY for the students studied Mathematics / Physics / Chemistry at HSC and appearing for Remedial Biology course.



10. Program Committee

1. The B. Pharm. program shall have a Program Committee constituted by the Head of the institution in consultation with all the Heads of the departments.
2. The composition of the Program Committee shall be as follows:

A senior teacher shall be the Chairperson; One Teacher from each department handling B.Pharm courses; and four student representatives of the program (one from each academic year), nominated by the Head of the institution.

3. Duties of the Program Committee:
 - i. Periodically reviewing the progress of the classes.
 - ii. Discussing the problems concerning curriculum, syllabus and the conduct of classes.
 - iii. Discussing with the course teachers on the nature and scope of assessment for the course and the same shall be announced to the students at the beginning of respective semesters.
 - iv. Communicating its recommendation to the Head of the institution on academic matters.
 - v. The Program Committee shall meet at least thrice in a semester preferably at the end of each Sessionalexam (Internal Assessment) and before the end semester exam.

11. Examinations/Assessments

The scheme for internal assessment and end semester examinations is given in Table – X.

End semester examinations

The End Semester Examinations for each theory and practical coursethrough semesters I to VIII shall be conducted by the university except for the subjects with asterix symbol (*) in table I and II for which examinations shall be conducted by the subject experts at college level and the marks/grades shall be submitted to the university.



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KAKATIYA UNIVERSITY, WARANGAL



**SYLLUBUS FOR MASTER OF PHARMACY
(M.PHARM)
TWO YEARS COURSE**

From the academic year 2023-2024 onwards

**FACULTY OF PHARMACEUTICAL SCIENCES,
KAKATIYA UNIVERSITY NAAC A+ Grade, WARANGAL**



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Warangal (Dt) - 506 331 (T.S)

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CHAPTER -I: REGULATIONS

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 20203-24. The regulations framed are subject to modifications from time to time by the authorities of the Kakatiya 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 Pharmacy 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 semester shall consist of not less than 90 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 75% 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/extra- curricular activities is dependent upon the quantum of work expected to be put in for each of these activities per week/per activity.

Credit assignment

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.

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



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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.	Pharmacy Practice	MPP
8.	Pharmacology	MPL
9.	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 Code	Course	Credit Hours	Credit Points	Hrs./week	Marks
Semester I					
MPH101T	Modern Pharmaceutical Analytical Techniques	4	4	4	100
MPH102T	Drug Delivery Systems	4	4	4	100
MPH103T	Modern Pharmaceutics	4	4	4	100
MPH104T	IPR and Regulatory Affairs	4	4	4	100
MPH105P	Modern Pharmaceutical Analytical Techniques Practical	6	3	6	100
MPH106P	Pharmaceutics-I Practical	6	3	6	100
-	Seminar/Assignment	7	4	7	100
	Total	35	26	35	700
Semester II					
MPH201T	Advanced Biopharmaceutics & Pharmacokinetics	4	4	4	100
MPH202T	Molecular Pharmaceutics (Nano technology & Targeted Drug Delivery Systems)	4	4	4	100
MPH203T	Pharmaceutical Production Technology	4	4	4	100
MPH204T	Cosmetic and Cosmeceuticals	4	4	4	100
MPH205P	Advanced BioPharmaceutics and Pharmacokinetics Practical	6	3	6	100
MPH206P	Pharmaceutics-II Practical	6	3	6	100
-	Seminar/Assignment	7	4	7	100
	Total	35	26	35	700



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Table – 5: Course of study for M. Pharm. (Pharmaceutical Analysis)

Course Code	Course	Credit Hours	Credit Points	Hrs./wk	Marks
Semester I					
MPA101T	Modern Pharmaceutical Analytical Techniques	4	4	4	100
MPA102T	Advanced Pharmaceutical Analysis-I	4	4	4	100
MPA103T	Pharmaceutical Validation	4	4	4	100
MPA104T	Food Analysis	4	4	4	100
MPA105P	Modern Pharmaceutical Analytical Techniques	6	3	6	100
MPA106P	Advanced Pharmaceutical Analysis-I	6	3	6	100
-	Seminar/Assignment	7	4	7	100
Total		35	26	35	700
Semester II					
MPA201T	Advanced Instrumental Analysis	4	4	4	100
MPA202T	Modern Bio- Analytical Techniques	4	4	4	100
MPA203T	Quality Control and Quality Assurance	4	4	4	100
MPA204T	Advanced Pharmaceutical Analysis -II	4	4	4	100
MPA205P	Advanced Instrumental Analysis	6	3	6	100
MPA206P	Advanced Pharmaceutical Analysis-II	6	3	6	100
-	Seminar/Assignment	7	4	7	100
Total		35	26	35	700



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Table – 6: Course of study for M. Pharm. (Pharmaceutical Quality Assurance)

Course Code	Course	Credit Hours	Credit Points	Hrs./week	Marks
Semester I					
MQA101T	Modern Pharmaceutical Analytical Techniques	4	4	4	100
MQA102T	Quality Management System	4	4	4	100
MQA103T	Quality Control and Quality Assurance	4	4	4	100
MQA104T	Product Development and Technology Transfer	4	4	4	100
MQA105P	Modern Pharmaceutical Analytical techniques	6	3	6	100
MQA106P	Quality Assurance and Quality Control	6	3	6	100
-	Seminar/Assignment	7	4	7	100
Total		35	26	35	700
Semester II					
MQA201T	Hazards and Safety Management	4	4	4	100
MQA202T	Pharmaceutical Validation	4	4	4	100
MQA203T	Audits and Regulatory Compliance	4	4	4	100
MQA204T	Pharmaceutical Manufacturing Technology	4	4	4	100
MQA205P	Pharmaceutical Validation	6	3	6	100
MQA206P	Pharmaceutical Manufacturing Technology	6	3	6	100
-	Seminar/Assignment	7	4	7	100
Total		35	26	35	700



Table – 10: Course of study for M. Pharm. (Pharmacognosy)

Course Code	Course	Credit Hours	Credit Points	Hrs./wk	Marks
Semester I					
MPG101T	Modern Pharmaceutical Analytical Techniques	4	4	4	100
MPG102T	Advanced Pharmacognosy-I	4	4	4	100
MPG103T	Phytochemistry	4	4	4	100
MPG104T	Industrial Pharmacognostical Technology	4	4	4	100
MPG105P	Advanced Pharmacognosy-I	6	3	6	100
MPG106P	Phytochemistry	6	3	6	100
-	Seminar/Assignment	7	4	7	100
	Total	35	26	35	700
Semester II					
MPG201T	Advanced Pharmacognosy-II	4	4	4	100
MPG202T	Indian System of Medicine	4	4	4	100
MPG203T	Herbal cosmetics	4	4	4	100
MPG204T	Clinical Research and Pharmacovigilance	4	4	4	100
MPG205P	Advanced Pharmacognosy-II	6	3	6	100
MPG206P	Herbal Cosmetics	6	3	6	100
-	Seminar/Assignment	7	4	7	100
	Total	35	26	35	700

Table – 11: 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



Table – 12: 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 – 13: 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

*Credit Points for Co-curricular Activities

Table No-14 Guidelines for Awarding Credit Points for Co-Curricular Awards

Name of the Activity	Maximum Credit Points Eligible / Activity
Participation in National Level Seminar/Conference/Workshop/Symposium/ Training Programs (related to the specialization of the student)	01
Participation in international Level Seminar/Conference/Workshop/Symposium/ Training Programs (related to the specialization of the student)	02
Academic Award/Research Award from State Level/National Agencies	01
Academic Award/Research Award from International Agencies	02
Research / Review Publication in National Journals (Indexed in Scopus / Web of Science)	01
Research / Review Publication in International Journals (Indexed in Scopus / Web of Science)	02



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Journal: The Editorial Board Out side India

*The credit points assigned for extracurricular and or co-curricular activities shall be given by the Principals of the colleges and the same shall be submitted to the University. The criteria to acquire this credit point shall be defined by the University from time to time.

1. Program Committee

1. The M. Pharm. programme shall have a Programme Committee constituted by the Head of the institution in consultation with all the Heads of the departments.

2. The composition of the Programme Committee shall be as follows:

A teacher at the cadre of Professor shall be the Chairperson; One Teacher from each M.Pharm specialization and four student representatives (two from each academic year), nominated by the Head of the institution.

3. Duties of the Programme Committee:

- i. Periodically reviewing the progress of the classes.
- ii. Discussing the problems concerning curriculum, syllabus and the conduct of classes.
- iii. Discussing with the course teachers on the nature and scope of assessment for the course and the same shall be announced to the students at the beginning of respective semesters.
- iv. Communicating its recommendation to the Head of the institution on academic matters.
- v. The Programme Committee shall meet at least twice in a semester preferably at the end of each sessional exam and before the end semester exam.

2. Examinations/Assessments

The schemes for internal assessment and end semester examinations are given in Table – 16.

End semester examinations

The End Semester Examinations for each theory and practical course through semesters I to IV shall be conducted by the respective university and the marks/grades shall be submitted to the university.

Note: In each semester Seminar -50marks and Assignment -50 marks (Non University exam/Internal assessment)



Sam

PRINCIPAL
Balaji Institute of Pharmaceutical Sciences
Laknepally (V), Narsampet (M)
Warangal (Dt) - 506 331 (T.S)

Table No: 16- Schemes for Internal Assessment and End Semester (Pharmaceutics-MPH)

Course Code	Course	Internal Assessment			End Semester Exams		Total Marks
		Sessional Exams		Total	Marks	Duration	
		Marks	Duration				
SEMESTER I							
MPH 101T	Modern Pharmaceutical Analytical Techniques	25	1.30 Hr	25	75	3Hrs	100
MPH 102T	Drug Delivery System	25	1.30 Hr	25	75	3Hrs	100
MPH 103T	Modern Pharmaceutics	25	1.30 Hr	25	75	3Hrs	100
MPH 104T	IPR and Regulatory Affair	25	1.30 Hr	25	75	3 Hrs	100
MPH 105P	Modern Pharmaceutical Analytical techniques	25	3 Hrs	25	75	4 Hrs	100
MPH 106P	Pharmaceutics-I	25	3 Hrs	25	75	4 Hrs	100
-	Seminar /Assignment	100	-	-		3Hrs	100
Total							700
SEMESTER II							
MPH 201T	Advanced Biopharmaceutics & Pharmacokinetics	25	1.30 Hr	25	75	3 Hrs	100
MPH 202T	Molecular Pharmaceutics (Nano Tech and Targeted DDS)	25	1.30 Hr	25	75	3 Hrs	100
MPH 203T	Pharmaceutical Production Technology	25	1.30 Hr	25	75	3 Hrs	100
MPH 204T	Cosmetic and Cosmeceuticals	25	1.30 Hr	25	75	3 Hrs	100
MPH 205P	Pharmaceutics Practical III	25	3 Hrs	25	75	4Hrs	100
MPH 206 P	Pharmaceutics Practical IV	25	3 Hrs	25	75	4Hrs	100
	Seminar /Assignment	100				3Hrs	100
Total							700



Table No: 17- Schemes for Internal Assessment and End Semester (Industrial Pharmacy-MIP)

Course Code	Course	Internal Assessment			End Semester Exams		Total Marks
		Sessional Exams		Total	Marks	Duration	
		Marks	Duration				
SEMESTER I							
MIP101T	Modern Pharmaceutical Analytical Techniques	25	1.30 Hr	25	75	3Hrs	100
MIP102T	Pharmaceutical Formulation Development	25	1.30 Hr	25	75	3 Hrs	100
MIP103T	Novel Drug Delivery Systems	25	1.30 Hr	25	75	3 Hrs	100
MIP104T	Intellectual Property Rights and Regulatory Affairs	25	1.30 Hr	25	75	3 Hrs	100
MIP105P	Pharmaceutical Analytical Techniques	25	3 Hrs	25	75	4Hr	100
MIP106 P	Industrial pharmacy-I	25	3 Hrs	25	75	4 Hrs	100
-	Seminar /Assignment	100	-	-	-	3Hrs	100
Total							700
Semester-II							
Total							700
MIP201T	Advanced Biopharmaceutics Pharmacokinetics	25	1.30 Hr	25	75	3 Hrs	100
MIP202T	Scale up and Technology Transfer	25	1.30 Hr	25	75	3 Hrs	100
MIP203T	Pharmaceutical Production Technology	25	1.30 Hr	25	75	3 Hrs	100
MIP204T	Entrepreneurship Management	25	1.30 Hr	25	75	3 Hrs	100
MIP205P	Advanced Biopharmaceutics Pharmacokinetics	25	3hrs	25	75	4hrs	100
MIP206P	Industrial Pharmacy-II	25	3hrs	25	75	4hrs	100
-	Seminar /Assignment	100	-	-	-	3Hrs	100
Total							700



Table No: 19- Schemes for Internal Assessment and End Semester (Pharmaceutical Analysis-MPA)

Course Code	Course	Internal Assessment				End Semester Exams		Total Marks
		Contin uous Mode	Sessional Exams		Tot al	Mark s	Dura tion	
			Mark s	Durati on				
SEMESTER I								
MPA101T	Modern Pharmaceuti cal Analytical Techniques	25	1.30 Hr	25	75	3 Hrs	100	
MPA102T	Advanced Pharmaceuti cal Analysis-I	25	1.30 Hr	25	75	3 Hrs	100	
MPA103T	Pharmaceuti Cal Validation	25	1.30 Hr	25	75	3 Hrs	100	
MPA104T	Food Analysis	25	1.30 Hr	25	75	3 Hrs	100	
MPA105P	Modern Pharmaceutical Analytical Techniques	25	3 Hrs	25	75	4 Hrs	100	
MPA106P	Pharmaceuti cal Analysis-I	25	3Hrs	25	75	4Hrs	100	
-	Seminar /Assignment	100	-	-	-	3Hrs	100	
Total							700	
SEMESTER II								
MPA201T	Advanced Instrumental Analysis	25	1.30 Hr	25	75	3 Hrs	100	
MPA202T	Modern Bio- Analytical Techniques	25	1.30 Hr	25	75	3 Hrs	100	
MPA203T	Quality Control and Quality Assurance	25	1.30 Hr	25	75	3 Hrs	100	
MPA204T	Advanced Pharmaceutical Analysis -II	25	1.30 Hr	25	75	3 Hrs	100	
MPA205P	Advanced Instrumental Analysis-I	25	3 Hrs	25	75	4 Hrs	100	
MPA206P	Advanced Pharmaceuti cal Analysis-II	25	3 Hrs	25	75	4 Hrs	100	
-	Seminar /Assignment	100	-	-	-	3Hrs	100	
Total							700	



Table No: 20- Schemes for Internal Assessment and End Semester (Pharmaceutical Quality Assurance-MQA)

Course Code	Course	Internal Assessment			End Semester Exams		Total Marks
		Sessional Exams		Total	Marks	Duration	
		Marks	Duration				
SEMESTER I							
MQA1 01T	Modern Pharmaceutical Analytical Techniques	25	1.30 Hr	25	75	3 Hrs	100
MQA1 02T	Quality Management System	25	1.30 Hr	25	75	3 Hrs	100
MQA1 03T	Quality Control and Quality Assurance	25	1.30 Hr	25	75	3 Hrs	100
MQA1 04T	Product Development and Technology Transfer	25	1.30 Hr	25	75	3 Hrs	100
MQA1 05P	Pharmaceutical Quality Assurance Practical I	25	3 Hrs	25	75	4 Hrs	100
MQA1 06P	Pharmaceutical Quality Assurance Practical -II	25	3 Hrs	25	75	4 Hrs	100
-	Seminar /Assignment	100	-	-	-	3Hrs	100
Total							700
SEMESTER II							
MQA2 01T	Hazards and Safety Management	25	1.30 Hr	25	75	3 Hrs	100
MQA2 02T	Pharmaceutical Validation	25	1.30 Hr	25	75	3 Hrs	100
MQA2 03T	Audits Regulatory Compliance	25	1.30 Hr	25	75	3 Hrs	100
MQA2 04T	Pharmaceutical Manufacturing Technology	25	1.30 Hr	25	75	3 Hrs	100
MQA2 05P	Pharmaceutical Quality Assurance Practical III	25	3 Hrs	25	75	4 Hrs	100
MQA2 06P	Pharmaceutical Quality Assurance Practical IV	25	3Hrs	25	75	4 Hrs	100
	Seminar /Assignment	100				3Hrs	100
Total							700



Tables – 25: Schemes for internal assessments and end semester examinations (Semester III& IV)

Course Code	Course	Internal Assessment			End Semester Exams		Total Marks	
		Sessional Exams		Total	Marks	Duration		
		Marks	Duration					
SEMESTER III								
MRM30 1T	Research Methodology and Biostatistics		25	1.30 Hr	25	75	3 Hrs	100
-	Journal club		-	-	25	-	-	25
-	Discussion / Presentation (Proposal Presentation)		-	-	50	-	-	50
-	Research work		-	-	-	250	4 Hr	250
Total								425
SEMESTER IV								
-	Journal club	-	-	-	25	-	-	25
-	Discussion / Presentation (Proposal Presentation)	-	-	-	75	-	-	75
-	Research work and Colloquium	-	-	-	-	400	4 Hr	400
Total								500

Table – 26: Guidelines for the allotment of marks for attendance

Percentage of Attendance	Theory	Practical
95 – 100	8	10
90 – 94	6	7.5
85 – 89	4	5
80 – 84	2	2.5
Less than 80	0	0



11.2.1. Sessional Exams

Two sessional exams shall be conducted for each theory / practical course as per the schedule fixed by the college(s). The scheme of question paper for theory and practical sessional examinations is given in the table. The average marks of two sessional exams shall be computed for internal assessment as per the requirements given in tables.

12. Promotion and Award of grades

A student shall be declared PASS and eligible for getting grade in a course of M.Pharm.programme if he/she secures at least 50% marks in that particular course including internal assessment

13. Carry Forward of Marks

In case a student fails to secure the minimum 50% in any Theory or Practical course as specified in 12, then he/she shall reappear for the end semester examination of that course. However his/her marks of the Internal Assessment shall be carried over and he/she shall be entitled for grade obtained by him/her on passing.

14. Improvement of Internal Assessment

A student shall have the opportunity to improve his/her performance only once in the sessional exam component of the internal assessment. The re-conduct of the sessional exam shall be completed before the commencement of next end semester theory examinations.

15. Re –Examination of End Semester Examinations

Reexamination of end semester examination shall be conducted as per the schedule given in table 28. The exact dates of examinations shall be notified from time to time.

Table – 27: Tentative schedule of end semester examinations

Semester	For Regular Candidates	For Failed Candidates
I and III	November / December	May / June
II and IV	May / June	November / December

16. Allowed to Keep Terms (ATKT):

No student shall be admitted to any examination unless he/she fulfills the norms given in 6. ATKT rules are applicable as follows:

A student shall be eligible to get his/her CGPA upon successful completion of the courses of I to IV semesters.

Note: Grade AB should be considered as failed and treated as one head for deciding ATKT. Such rules are also applicable for those students who fail to register for examination(s) of any course in any semester.

17. Grading of Performance

Letter grades and grade points allocations:

Based on the performances, each student shall be awarded a final letter grade at the end of the semester for each course. The letter grades and their corresponding grade points are given in Table – 28.

Table – 28: Letter grades and grade points equivalent to Percentage of marks and performances

Percentage of Marks Obtained	Letter Grade	Grade Point	Performance
90.00 – 100	O	10	Outstanding
80.00 – 89.99	A	9	Excellent
70.00 – 79.99	B	8	Good
60.00 – 69.99	C	7	Fair
50.00 – 59.99	D	6	Average
Less than 50	F	0	Fail
Absent	AB	0	Fail

A learner who remains absent for any end semester examination shall be assigned a letter grade of AB and a corresponding grade point of zero. He/she should reappear for the said evaluation/examination in due course.

18. The Semester Grade Point Average (SGPA):

The performance of a student in a semester is indicated by a number called 'Semester Grade Point Average' (SGPA). The SGPA is the weighted average of the grade points obtained in all the courses by the student during the semester. For example, if a student takes five courses (Theory/Practical) in a semester with credits C1, C2, C3 and C4 and the student's grade points in these courses are G1, G2, G3 and G4, respectively, and then students' SGPA is equal to:

$$SGPA = \frac{C_1G_1 + C_2G_2 + C_3G_3 + C_4G_4}{C_1 + C_2 + C_3 + C_4}$$

The SGPA is calculated to two decimal points. It should be noted that, the SGPA for any semester shall take into consideration the F and ABS grade awarded in that semester. For example if a learner has a F or ABS grade in course 4, the SGPA shall then be computed as:

$$SGPA = \frac{C_1G_1 + C_2G_2 + C_3G_3 + C_4 * ZERO}{C_1 + C_2 + C_3 + C_4}$$



19. Cumulative Grade Point Average (CGPA):

The CGPA is calculated with the SGPA of all the IV semesters to two decimal points and is indicated in final grade report card/final transcript showing the grades of all IV semesters and their courses. The CGPA shall reflect the failed status in case of F grade(s), till the course(s) is/are passed. When the course(s) is/are passed by obtaining a pass grade on subsequent examination(s) the CGPA shall only reflect the new grade and not the fail grades earned earlier. The CGPA is calculated as:

$$\text{CGPA} = \frac{C_1S_1 + C_2S_2 + C_3S_3 + C_4S_4}{C_1 + C_2 + C_3 + C_4}$$

where C₁, C₂, C₃,.... is the total number of credits for semester I,II,III,.... and S₁, S₂, S₃,.... is the SGPA of semester I,II,III,....

20. Declaration of Class

The class shall be awarded on the basis of CGPA as follows: First Class with Distinction = CGPA of 7.5 and above

First Class = CGPA of 6.00 to 7.49

Second Class = CGPA of 5.00 to 5.99

21. Project Work

All the students shall undertake a project under the supervision of a teacher in Semester III to IV and submit a report. 4 copies of the project report shall be submitted (typed & bound copy not less than 75 pages).

The internal and external examiner appointed by the University shall evaluate the project at the time of the Practical examinations of other semester(s). The projects shall be evaluated as per the criteria given below.

Evaluation of Dissertation Book:

Objective(s) of the work done

Methodology adopted

Results and Discussions

Conclusions and Outcomes

50 Marks

150 marks

250 Marks

50 Marks

Total

500 Marks

Evaluation of Presentation:

Presentation of work

Communication skills

Question and answer skills

Total

100 Marks

50 Marks

100 Marks

250 Marks



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Balaji Institute of Pharmaceutical Sciences
Lakshapally (V), Narsampet (M)
W. Angal (Dt) - 506 331 (T.S.)

22. Award of Ranks:

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

23. Duration of the completion of the Program of the study

The duration for the completion of the program shall be fixed as double the actual duration of the program and the students have to pass within the said period, otherwise they have to get fresh Registration.

24. Revaluation I Re totaling of answer papers

There is no provision for revaluation of the answer papers in any examination. However, the candidates can apply for retotaling by paying prescribed fee.

25. Readmission after break of study

Candidate who seeks re-admission to the program after break of study has to get the approval from the university by paying a condonation fee.



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PRINCIPAL

Balaji Institute of Pharmaceutical Sciences
Laknepally (V), Narsampet (M)
Warangal (Dt) - 506 331 (T.S)