



SARDAR PATEL UNIVERSITY

Vallabh Vidyanagar

Rules & Syllabus for The Bachelor of Pharmacy (B. Pharm) Course

CHAPTER- I: REGULATIONS

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1. Commencement

These regulations shall come into effect from the Academic Year 2021-22. The regulations framed are subject to modifications from time to time by Sardar Patel University, Vallabh Vidyanagar.

2. Eligibility for Admission

2.1 First year B. Pharm:

As per the norms declared by the Admission committee, Department of Education, Government of Gujarat and Sardar Patel University from time to time.

2.2. B. Pharm lateral entry

As per the norms declared by the Admission committee, Department of Education, Government of Gujarat and Sardar Patel University from time to time.

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.

4. Medium of instruction and examinations

Medium of instruction and examination shall be as per the University rules and regulations (Under section 4(29) of the Sardar Patel University Act).

5. 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.

5.1 Credit assignment

One credit means the number of hours of instructions or work per week for 15 weeks in a semester.

For example,

1 Credit = 1 hour of direct teaching per week

1 Credit = 1 hour of Tutorial per week

1 Credit = 2 hours of Laboratory work per week

1 Credit = 2 hours of field work or project work per week

5.2. Credit requirements

The credit points required for award of a B. Pharm. degree are divided into Theory courses, Tutorials, Practical, Practice School and Project over the duration of eight semesters. 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 transfer of credit points from their previous courses studied. Such students shall take up additional remedial courses of B. Pharm programme.

6. Academic work

A regular record of attendance, teaching plan and teaching instructions shall be maintained by the teaching staff of respective courses.

7. Course of study

The course of study for B. Pharm shall include Semester Wise Courses. The number of hours to be devoted to each course in any semester shall not be less than that shown in course of study for respective semester.

Table-I: Course of study for semester I

Course code	Name of the course	No. of hours	Tutorial	Credit points
UP01CBPH01	Human Anatomy and Physiology I – Theory	3	1	4
UP01CBPH02	Pharmaceutical Analysis I – Theory	3	1	4
UP01CBPH03	Pharmaceutics I – Theory	3	1	4
UP01CBPH04	Pharmaceutical Inorganic Chemistry – Theory	3	1	4
UP01FBPH01	Communication Skills – Theory *	2	-	2
UP01FBPH02 UP01FBPH03	Remedial Biology/ Remedial Mathematics – Theory*	2	-	2
UP01CBPH05	Human Anatomy and Physiology – Practical	4	-	2
UP01CBPH06	Pharmaceutical Analysis I – Practical	4	-	2
UP01CBPH07	Pharmaceutics I – Practical	4	-	2
UP01CBPH08	Pharmaceutical Inorganic Chemistry – Practical	4	-	2
UP01FBPH04	Communication Skills – Practical*	2	-	1
UP01FBPH05	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)

Table-II: Course of study for semester II

Course Code	Name of the course	No. of hours	Tutorial	Credit points
UP02CBPH01	Human Anatomy and Physiology II – Theory	3	1	4
UP02CBPH02	Pharmaceutical Organic Chemistry I – Theory	3	1	4
UP02CBPH03	Pharmaceutical Engineering – Theory	3	1	4
UP02SBPH01	Computer Applications in Pharmacy – Theory *	3	-	3
UP02ABPH01	Environmental sciences – Theory *	3	-	3
UP02CBPH04	Human Anatomy and Physiology II – Practical	4	-	2
UP02CBPH05	Pharmaceutical Organic Chemistry I – Practical	4	-	2
UP02CBPH06	Pharmaceutical Engineering – Practical	4	-	2
UP02SBPH02	Computer Applications in Pharmacy – Practical*	2	-	1
Total		29	3	25

*Non University Examination (NUE)

Table-III: Course of study for semester III

Course Code	Name of the course	No. of hours	Tutorial	Credit points
UP03CBPH01	Pharmaceutical Organic Chemistry II – Theory	3	1	4
UP03CBPH02	Physical Pharmaceutics I – Theory	3	1	4
UP03CBPH03	Biochemistry – Theory	3	1	4
UP03CBPH04	Pharmaceutical Jurisprudence – Theory	3	1	4
UP03CBPH05	Pathophysiology – Theory	3	1	4
UP03CBPH06	Pharmaceutical Organic Chemistry II – Practical	4	-	2
UP03CBPH07	Physical Pharmaceutics I - Practical	4	-	2
UP03CBPH08	Biochemistry – Practical	4	-	2
Total:		27	5	26

Table-IV: Course of study for semester IV

Course Code	Name of the course	No. of hours	Tutorial	Credit points
UP04CBPH01	Pharmaceutical Organic Chemistry III – Theory	3	1	4
UP04CBPH02	Medicinal Chemistry I – Theory	3	1	4
UP04CBPH03	Physical Pharmaceutics II –Theory	3	1	4
UP04CBPH04	Pharmacology I – Theory	3	1	4
UP04CBPH05	Pharmacognosy and Phytochemistry I – Theory	3	1	4
UP04CBPH06	Medicinal Chemistry I – Practical	4	-	2
UP04CBPH07	Physical Pharmaceutics II – Practical	4	-	2
UP04CBPH08	Pharmacology I – Practical	4	-	2
UP04CBPH09	Pharmacognosy and Phytochemistry I – Practical	4	-	2
Total:		31	5	28

8. Program Committee

The B. Pharm. program shall have a Program Committee constituted by the Head of the department.

8.1 The composition of the Program Committee shall be as follows:

Chair person: Head of the department

Members: 1 teacher from each specialization

Student representative: minimum 1 student from each academic year

8.2 Duties of the Program Committee:

- i. Planning of academic activities
- ii. Periodically reviewing the progress of the classes.
- iii. Discussing the problems concerning curriculum, syllabus and the conduct of classes.
- iv. 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.
- v. Communicating its recommendation to the Head of the institution on academic matters.
- vi. The Program Committee shall meet at least thrice in a semester preferably at the end of each Sessional exam (Internal Assessment) and before the end semester exam.

9. Examinations/Assessments

The assessment of each course includes internal assessment and end semester examinations. The internal assessment shall be conducted by the subject experts at department level. The End semester examination shall be conducted by the university. The End semester examinations of Non-university examination courses shall be conducted by the subject experts at department level.

Internal assessment shall include continuous assessment and sessional examination (comprehensive assessment).

The weightage of internal assessment is distributed as per following:

<u>Internal assessment</u>	<u>Weightage</u>
Sessional examinations	60%
Continuous assessment	24%
Attendance	16%

A detailed scheme of internal assessment will be prepared in the beginning of the term. Records of all types of Internal assessment shall be maintained by the Department. Every student shall maintain a regular record of his/her practical work that shall be duly certified by teacher from time to time.

Continuous assessment shall be done through various means including quiz, seminar, assignment, open book test, field work, group discussion, viva voce and class participation. The Sessional examinations shall be conducted for each theory / practical course as per the schedule fixed by the Department(s).

The scheme for internal assessment and End semester examinations (semester wise) is given in the following table:

Tables-V: Schemes for internal assessments and end semester examinations semester wise

Semester – I

Course code	Name of the course	Internal Assessment			End Semester Exams		Total Marks	
		Continuous Mode	Sessional Exams		Total	Marks		Duration
			Marks	Duration				
UP01CBPH01	Human Anatomy and Physiology I – Theory	10	15	1 Hr	25	75	3 Hrs	100
UP01CBPH02	Pharmaceutical Analysis I - Theory	10	15	1 Hr	25	75	3 Hrs	100
UP01CBPH03	Pharmaceutics I – Theory	10	15	1 Hr	25	75	3 Hrs	100
UP01CBPH04	Pharmaceutical Inorganic Chemistry – Theory	10	15	1 Hr	25	75	3 Hrs	100
UP01FBPH01	Communication Skills – Theory *	5	10	1 Hr	15	35	1.5 Hrs	50
UP01FBPH02 UP01FBPH03	Remedial Biology/ Mathematics – Theory*	5	10	1 Hr	15	35	1.5 Hrs	50
UP01CBPH05	Human Anatomy and Physiology – Practical	5	10	4 Hrs	15	35	4 Hrs	50
UP01CBPH06	Pharmaceutical Analysis I - Practical	5	10	4 Hrs	15	35	4 Hrs	50
UP01CBPH07	Pharmaceutics I - Practical	5	10	4 Hrs	15	35	4 Hrs	50
UP01CBPH08	Pharmaceutical Inorganic Chemistry – Practical	5	10	4 Hrs	15	35	4 Hrs	50
UP01FBPH04	Communication Skills – Practical*	5	5	2 Hrs	10	15	2 Hrs	25
UP01FBPH05	Remedial Biology – Practical*	5	5	2 Hrs	10	15	2 Hrs	25
Total		70/75[§]/80[#]	115/125[§] /130[#]	23/24[§]/ 26[#]	185/200[§]/ 210[#]	490/525[§]/ 540[#]	31.5/33[§]/ 35[#] Hrs	675/725[§]/ 750[#]

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

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

Semester II

Course code	Name of the course	Internal Assessment				End Semester Exams		Total Marks
		Continuous Mode	Sessional Exams		Total	Marks	Duration	
			Marks	Duration				
UP02CBPH01	Human Anatomy and Physiology II – Theory	10	15	1 Hr	25	75	3 Hrs	100
UP02CBPH02	Pharmaceutical Organic Chemistry I – Theory	10	15	1 Hr	25	75	3 Hrs	100
UP02CBPH03	Pharmaceutical Engineering – Theory	10	15	1 Hr	25	75	3 Hrs	100
UP02SBPH01	Computer Applications in Pharmacy – Theory *	10	15	1 Hr	25	50	2 Hrs	75
UP02ABPH01	Environmental Sciences – Theory *	10	15	1 Hr	25	50	2 Hrs	75
UP02CBPH04	Human Anatomy and Physiology II – Practical	5	10	4 Hrs	15	35	4 Hrs	50
UP02CBPH05	Pharmaceutical Organic Chemistry I – Practical	5	10	4 Hrs	15	35	4 Hrs	50
UP02CBPH06	Pharmaceutical Engineering – Practical	5	10	4 Hrs	15	35	4 Hrs	50
UP02SBPH02	Computer Applications in Pharmacy – Practical*	5	5	2 Hrs	10	15	2 Hrs	25
Total		70	110	19 Hrs	180	445	27 Hrs	625

* The subject experts at Department level shall conduct examinations

Semester III

Course code	Name of the course	Internal Assessment				End Semester Exams		Total Marks
		Continuous Mode	Sessional Exams		Total	Marks	Duration	
			Marks	Duration				
UP03CBPH01	Pharmaceutical Organic Chemistry II – Theory	10	15	1 Hr	25	75	3 Hrs	100
UP03CBPH02	Physical Pharmaceutics I – Theory	10	15	1 Hr	25	75	3 Hrs	100
UP03CBPH03	Biochemistry – Theory	10	15	1 Hr	25	75	3 Hrs	100
UP03CBPH04	Pharmaceutical Jurisprudence – Theory	10	15	1 Hr	25	75	3 Hrs	100
UP03CBPH05	Pathophysiology – Theory	10	15	1 Hr	25	75	3 Hrs	100
UP03CBPH06	Pharmaceutical Organic Chemistry II – Practical	5	10	4 Hr	15	35	4 Hrs	50
UP03CBPH07	Physical Pharmaceutics I - Practical	5	10	4 Hr	15	35	4 Hrs	50
UP03CBPH08	Biochemistry – Practical	5	10	4 Hr	15	35	4 Hrs	50
Total		65	105	17	170	480	27Hrs	650

Semester IV

Course code	Name of the course	Internal Assessment				End Semester Exams		Total Marks
		Continuous Mode	Sessional Exams		Total	Marks	Duration	
			Marks	Duration				
UP04CBPH01	Pharmaceutical Organic Chemistry III – Theory	10	15	1 Hr	25	75	3 Hrs	100
UP04CBPH02	Medicinal Chemistry I – Theory	10	15	1 Hr	25	75	3 Hrs	100
UP04CBPH03	Physical Pharmaceutics II – Theory	10	15	1 Hr	25	75	3 Hrs	100
UP04CBPH04	Pharmacology I – Theory	10	15	1 Hr	25	75	3 Hrs	100
UP04CBPH05	Pharmacognosy and Phytochemistry I – Theory	10	15	1 Hr	25	75	3 Hrs	100
UP04CBPH06	Medicinal Chemistry I – Practical	5	10	4 Hr	15	35	4 Hrs	50
UP04CBPH07	Physical Pharmaceutics II – Practical	5	10	4 Hrs	15	35	4 Hrs	50
UP04CBPH08	Pharmacology I – Practical	5	10	4 Hrs	15	35	4 Hrs	50
UP04CBPH09	Pharmacognosy and Phytochemistry I – Practical	5	10	4 Hrs	15	35	4 Hrs	50
Total		70	115	21 Hrs	185	515	31 Hrs	700

10. Provisions for detaining a student at the end semester university examination

10.1. Internal test passing criterion:

Student will be required to obtain at least 40% marks separately in each course in the internal tests conducted by the department, provided however, a candidate who fails to obtain 40% marks in not more than two courses, may be allowed to appear at the University examination by the Head of the Department on the recommendation of the committee appointed by him to assess the candidate's overall performance.

If a student does not fulfill the internal test passing criteria, he/she will not be eligible to appear in the end semester examination.

10.2. Attendance and progress

Student must have 80% attendance of the total working days in each course for appearing in end semester examination. The condonation shall be treated as per prevailing norms of the university.

10.3. Any other norms laid down by university from time to time

11. End semester Examination

11.1. Standard of passing

A student shall be declared PASS and eligible for getting grade in a course of B.Pharm. Program, if he/she secures at least 40% marks in that particular course including internal assessment. For example, to be declared as PASS and to get grade, the student has to secure a minimum of 40 marks for the total of 100 including continuous mode of assessment and end semester theory examination and has to secure a minimum of 20 marks for the total 50 including internal assessment and end semester practical examination.

11.2. Grading of Performances, Letter Grades and Grade points allocations:

The candidate will NEVER be said to have failed in a course if he/she is unsuccessful in completing the course by the end of the semester. On the contrary he/she is said to have Not clear (NC) the paper.

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 following Section.

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	Very Good
60.00 – 69.99	C	7	Good
50.00 – 59.99	D	6	Fair
40.00 – 49.99	E	5	Average
Absent	AB	0	Not Clear (NC)

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.

12. 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, C₄ and C₅ and the student's grade points in these courses are G₁, G₂, G₃, G₄ and G₅, respectively, and then students' SGPA is equal to:

$$\text{SGPA} = \frac{C_1G_1 + C_2G_2 + C_3G_3 + C_4G_4 + C_5G_5}{C_1 + C_2 + C_3 + C_4 + C_5}$$

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 AB 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:

$$\text{SGPA} = \frac{C_1G_1 + C_2G_2 + C_3G_3 + C_4 \text{ ZERO} + C_5G_5}{C_1 + C_2 + C_3 + C_4 + C_5}$$

13. Cumulative Grade Point Average (CGPA)

The CGPA is calculated with the SGPA of all the VIII semesters to two decimal points and is indicated in final grade report card/final transcript showing the grades of all VIII 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:

$$\text{CGPA} = \frac{C_1S_1 + C_2S_2 + C_3S_3 + C_4S_4 + C_5S_5 + C_6S_6 + C_7S_7 + C_8S_8}{C_1 + C_2 + C_3 + C_4 + C_5 + C_6 + C_7 + C_8}$$

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,.... .

14. Declaration of class

The class shall be awarded on the basis of CGPA as follows:

First Class with Distinction	= CGPA of 7.50 And above
First Class	= CGPA of 6.00 to 7.49
Second Class	= CGPA of 5.00 to 5.99
Pass Class	= CGPA of 4.00 to 4.99

15. Carry forward of marks

In case a student fails to secure the minimum 40% in any course, 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.

16. 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.

17. Academic Progression:

A student shall be eligible to carry forward all the courses of I, II and III semesters till the IV semester examinations. However, he/she shall not be eligible to attend the courses of V semester until all the courses of I and II semesters are successfully completed.

A student shall be eligible to carry forward all the courses of III, IV and V semesters till the VI semester examinations. However, he/she shall not be eligible to attend the courses of VII semester until all the courses of I, II, III and IV semesters are successfully completed.

A student shall be eligible to carry forward all the courses of V, VI and VII semesters till the VIII semester examinations. However, he/she shall not be eligible to get the course completion certificate until all the courses of I, II, III, IV, V and VI semesters are successfully completed.

A student shall be eligible to get his/her CGPA upon successful completion of the courses of I to VIII semesters within the stipulated time period.

A lateral entry student shall be eligible to carry forward all the courses of III, IV and V semesters till the VI semester examinations. However, he/she shall not be eligible to attend the courses of VII semester until all the courses of III and IV semesters are successfully completed.

A lateral entry student shall be eligible to carry forward all the courses of V, VI and VII semesters till the VIII semester examinations. However, he/she shall not be eligible to get the course completion certificate until all the courses of III, IV, V and VI semesters are successfully completed.

A lateral entry student shall be eligible to get his/her CGPA upon successful completion of the courses of III to VIII semesters within the stipulated time period as per the norms specified in 26.

Any student who has given more than 4 chances for successful completion of I / III semester courses and more than 3 chances for successful completion of II / IV semester courses shall be permitted to attend V / VII semester classes ONLY during the subsequent academic year as the case may be. In simpler terms there shall NOT be any ODD BATCH for any semester.

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

18. 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 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.

19. Award of degree

Candidates who fulfill the requirements mentioned above shall be eligible for award of degree during the ensuing convocation.

20. Duration for completion of the program of 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.

21. Re-admission 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.

No condonation is allowed for the candidate who has more than 2 years of break up period and he/she has to rejoin the program by paying the required fees.