



The Indian Pharmaceutical Association-Maharashtra State Branch's  
**Bombay College of Pharmacy-Autonomous**  
Kalina, Santacruz (E) Mumbai 400098  
(Approved by AICTE, PCI and affiliated to University of Mumbai)  
Accredited by NBA

**Rules and Regulations for the Bachelor of Pharmacy (B. Pharm)**  
**Choice Based Credit System (CBCS)**

**Effective from Academic Year 2019-2020**

## INTRODUCTION

### RECOMMENDATIONS OF NATIONAL REGULATORY AUTHORITIES

The University Grants Commission (UGC), the National Assessment and Accreditation Council (NAAC), the Distance Education Council (DEC) and the National Knowledge Commission (NKC) have time and again come out with recommendations for improving the quality and effectiveness of Higher education provisions in the country. The ministry of Human Resource Development at the Central level and the Ministry of Higher & Technical Education, Government of Maharashtra have also repeatedly stressed on the need for universities to pay prompt attention to improve the quality of education. The National Knowledge Commission (NKC), in its report to the Prime Minister on 29th November 2006) has also reiterated the importance of higher education and the contribution it has made to economic development, social progress and political democracy in independent India.

An important concern voiced more strongly in recent times, is the need to develop a Choice-Based Credit System (CBCS) in tune with global trends and the adoption of a sound grading system for reflecting learner performance. This is in line with the **recommendation of the UGC** in its *Action Plan for Academic and Administrative Reforms* (Ref. UGC letters January 2008; March 2009) “..... *Curricular flexibility and learners’ mobility are issues that warrant our urgent attention. These can be addressed by introducing credit based courses and credit accumulation. In order to provide with some degree of flexibility to learners, we need to provide flexibility in course selection and also a minimum as well as a maximum permissible span of time in which a course can be completed by a learner... The Choice-Based Credit System (CBCS) imminently fits into the emerging socioeconomic milieu and could effectively respond to the educational and occupational aspirations of the upcoming generations. In view of this, institutions of higher education in India would do well to invest thought and resources into introducing CBCS. Aided by modern communication and information technology, CBCS has a high probability to be operationalized efficiently and effectively — elevating learners, institutions and higher education system in the country to newer heights...*”.

### RATIONALE FOR INTRODUCTION OF CREDIT AND GRADING SYSTEM

The UGC while outlining the several unique features of the Choice-Based Credit System (CBCS) has, in fact, given in a nutshell, the rationale for its introduction. Among the features highlighted by the UGC are: *Enhanced learning opportunities, ability to match learners’ scholastic needs and aspirations, inter-institution transferability of learners (following the completion of a semester), part-completion of an academic programme in the institution of enrolment and part-completion in a specialized (and recognized) institution, improvement in educational quality and excellence, flexibility for working learners to complete the programme over an extended period of time, standardization and comparability of educational programmes across the country, etc.*

This Choice Based Credit System enables a much-required shift in focus from teacher-centric to learner-centric education since the workload estimated is based on the investment of time in learning, not in teaching. It also focuses on continuous evaluation which will enhance the quality of education. It can be concluded from the above discussion



that it is very much essential to implement the Choice Based Credit System in higher education in India. Course credit structure, examination/assessment and grading are mainly focused aspects of this manual and discussed in subsequent chapters.

#### **DIRECTIVES OF PHARMACY COUNCIL OF INDIA**

The Pharmacy Council of India (PCI) in exercise of the powers conferred to it under the sections 10 and 18 of the Pharmacy Act 1948 (8 of 1948), with the approval of the Central Government, had made the Bachelor of Pharmacy (B. Pharm.) Course Regulations, 2014 and Master of Pharmacy (M. Pharm.) Course regulations vide Gazette dated December 10, 2014. Further as per regulations 6 and 8 of the above course regulations the PCI has also prescribed the Rules and Syllabus for B. Pharm. course and Scheme and Syllabus for M. Pharm., its letter Ref 14-136/2016-PCI and Ref 14-154/2015 PCI dated December 21, 2016, with the subject heading “Statutory Scheme/Rules and syllabus for B. Pharm and M. Pharm. courses”. It is thus mandatory to implement the directives of PCI with regard to the Rules/Regulations/Syllabus for recognition and extension of approval of B. Pharm. and M. Pharm. programs of institutes/Universities by the PCI



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, 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.

### **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 /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 ( $\frac{1}{2}$ ) 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.

### **7.2. Minimum credit requirements**

The minimum credit points required for award of a B. Pharm. degree is **216/218<sup>§</sup>/219<sup>#</sup>** (**216<sup>§</sup>** Applicable ONLY for students who have taken Physics/Chemistry/Botany/Zoology at HSC and will be appearing for the Remedial Mathematics course; **218<sup>#</sup>** Applicable ONLY for students who have taken Biology/Physics/Chemistry at HSC and will be appearing for the Remedial Mathematics course, and **219<sup>#</sup>** Applicable ONLY for students who have taken Mathematics/Physics/Chemistry at HSC and will be appearing for the Remedial Biology course). 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.

## **9. Course of study**

The course of study for B. Pharm shall include Semester Wise Theory & Practical as given in Tables – 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 Tables – 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	4	-	1
BP112RBP	Remedial Biology – Practical	4	-	1
<b>Total</b>		<b>34/36<sup>§</sup>/40<sup>#</sup></b>	<b>4</b>	<b>27/29<sup>§</sup>/30<sup>#</sup></b>

<sup>#</sup> Applicable ONLY for the students who have studied Mathematics/Physics/Chemistry at HSC and will be appearing for the Remedial Biology (RB)course.

<sup>§</sup> Applicable ONLY for the students who have studied Physics/Chemistry/Botany/Zoology at HSC and will be appearing for the Remedial Mathematics (RM)course.



**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
<b>Total</b>		<b>32</b>	<b>4</b>	<b>29</b>

**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
<b>Total</b>		<b>28</b>	<b>4</b>	<b>24</b>



**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
<b>Total</b>		<b>31</b>	<b>5</b>	<b>28</b>

**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 Pharmacy I– 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 Pharmacy I – Practical	4	-	2
BP507P	Pharmacology II – Practical	4	-	2
BP508P	Pharmacognosy and Phytochemistry II – Practical	4	-	2
<b>Total</b>		<b>27</b>	<b>5</b>	<b>26</b>

**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
<b>Total</b>		<b>30</b>	<b>6</b>	<b>30</b>



**Table-VII: Course of study for Semester VII**

<b>Course code</b>	<b>Name of the course</b>	<b>No. of hours</b>	<b>Tutorial</b>	<b>Credit points</b>
BP701T	Instrumental Methods of Analysis – Theory	3	1	4
BP702T	Industrial Pharmacy II – 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
<b>Total</b>		<b>28</b>	<b>5</b>	<b>24</b>

**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	Pharma Marketing Management	3	1	4
BP804ET	Elective I	3	1	4
BP805ET	Elective II	3	1	4
BP813PW	Project Work	12	-	6
<b>Total</b>		<b>24</b>	<b>4</b>	<b>22</b>

Students may select any two electives from those listed in the Syllabus.

**Table-IX: Semester wise credits distribution**

Semester	Credit Points
I	27/29 <sup>\$</sup> /30 <sup>#</sup>
II	29
III	24
IV	28
V	26
VI	30
VII	24
VIII	22
Extracurricular/Co-curricular activities	2
Industrial training	2
College Social Responsibility	2
<b>Total credit points for the program</b>	<b>216/218<sup>\$</sup>/219<sup>#</sup></b>

<sup>\$</sup> Applicable ONLY for the students studied Physics/Chemistry/Botany/Zoology at HSC and appearing for Remedial Mathematics course.

<sup>#</sup> Applicable ONLY for the students studied Mathematics/Physics/Chemistry at HSC and appearing for Remedial Biology course.

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### 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				
BP101T	Human Anatomy and Physiology I- Theory	10	15	1 Hr	25	75	3 Hrs	100
BP102T	Pharmaceutical Analysis I – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP103T	Pharmaceutics I – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP104T	Pharmaceutical Inorganic Chemistry – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP105T	Communication skills – Theory *	5	10	1 Hr	15	35	2 Hrs	50
BP106RBT BP106RMT	Remedial Biology/ Mathematics – Theory*	5	10	1 Hr	15	35	2 Hrs	50
BP107P	Human Anatomy and Physiology – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP108P	Pharmaceutical Analysis I – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP109P	Pharmaceutics I – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP110P	Pharmaceutical Inorganic Chemistry – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP111P	Communication skills – Practical*	5	10	4 Hrs	15	35	4 Hrs	50
BP112RBP	Remedial Biology – Practical*	5	10	4 Hrs	15	35	4 Hrs	50
<b>Total</b>		<b>70/75<sup>§</sup>/80<sup>#</sup></b>	<b>120/130<sup>§</sup>/140<sup>#</sup></b>	<b>25/26<sup>§</sup>/28<sup>#</sup> Hrs</b>	<b>190/205<sup>§</sup>/220<sup>#</sup></b>	<b>510/545<sup>§</sup>/580<sup>#</sup></b>	<b>34/36<sup>§</sup>/40<sup>#</sup> Hrs</b>	<b>700/750<sup>§</sup>/800<sup>#</sup></b>

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

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

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### Semester II

Course code	Name of the course	Internal Assessment				End Semester Exams		Total Marks
		Continuous Mode	Sessional Exams		Total	Marks	Duration	
			Marks	Duration				
BP201T	Human Anatomy and Physiology II – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP202T	Pharmaceutical Organic Chemistry I – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP203T	Biochemistry – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP204T	Pathophysiology – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP205T	Computer Applications in Pharmacy – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP206T	Environmental sciences – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP207P	Human Anatomy and Physiology II – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP208P	Pharmaceutical Organic Chemistry I– Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP209P	Biochemistry – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP210P	Computer Applications in Pharmacy – Practical	5	10	4 Hrs	15	35	4 Hrs	50
<b>Total</b>		<b>80</b>	<b>130</b>	<b>22 Hrs</b>	<b>210</b>	<b>540</b>	<b>34 Hrs</b>	<b>800</b>

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### Semester III

Course code	Name of the course	Internal Assessment				End Semester Exams		Total Marks
		Continuous Mode	Sessional Exams		Total	Marks	Duration	
			Marks	Duration				
BP301T	Pharmaceutical Organic Chemistry II – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP302T	PhysicalPharmaceuticsI –Theory	10	15	1 Hr	25	75	3 Hrs	100
BP303T	Pharmaceutical Microbiology – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP304T	Pharmaceutical Engineering – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP305P	Pharmaceutical Organic Chemistry II – Practical	5	10	4 Hr	15	35	4 Hrs	50
BP306P	Physical Pharmaceutics I – Practical	5	10	4 Hr	15	35	4 Hrs	50
BP307P	Pharmaceutical Microbiology – Practical	5	10	4 Hr	15	35	4 Hrs	50
BP308P	Pharmaceutical Engineering – Practical	5	10	4 Hr	15	35	4 Hrs	50
<b>Total</b>		<b>60</b>	<b>100</b>	<b>20</b>	<b>160</b>	<b>440</b>	<b>28Hrs</b>	<b>600</b>



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### Semester IV

Course code	Name of the course	Internal Assessment				End Semester Exams		Total Marks
		Continuous Mode	Sessional Exams		Total	Marks	Duration	
			Marks	Duration				
BP401T	Pharmaceutical Organic Chemistry III– Theory	10	15	1 Hr	25	75	3 Hrs	100
BP402T	Medicinal Chemistry I – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP403T	Physical Pharmaceutics II – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP404T	Pharmacology I – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP405T	Pharmacognosy I – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP406P	Medicinal Chemistry I – Practical	5	10	4 Hr	15	35	4 Hrs	50
BP407P	Physical Pharmaceutics II – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP408P	Pharmacology I – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP409P	Pharmacognosy I – Practical	5	10	4 Hrs	15	35	4 Hrs	50
<b>Total</b>		<b>70</b>	<b>115</b>	<b>21 Hrs</b>	<b>185</b>	<b>515</b>	<b>31 Hrs</b>	<b>700</b>

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### Semester V

Course code	Name of the course	Internal Assessment				End Semester Exams		Total Marks
		Continuous Mode	Sessional Exams		Total	Marks	Duration	
			Marks	Duration				
BP501T	Medicinal Chemistry II – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP502T	Industrial PharmacyI– Theory	10	15	1 Hr	25	75	3 Hrs	100
BP503T	Pharmacology II – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP504T	Pharmacognosy and Phytochemistry II – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP505T	Pharmaceutical Jurisprudence– Theory	10	15	1 Hr	25	75	3 Hrs	100
BP506P	Industrial PharmacyI– Practical	5	10	4 Hr	15	35	4 Hrs	50
BP507P	Pharmacology II – Practical	5	10	4 Hr	15	35	4 Hrs	50
BP508P	Pharmacognosy II – Practical	5	10	4 Hr	15	35	4 Hrs	50
<b>Total</b>		<b>65</b>	<b>105</b>	<b>17 Hr</b>	<b>170</b>	<b>480</b>	<b>27 Hrs</b>	<b>650</b>

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### Semester VI

Course code	Name of the course	Internal Assessment				End Semester Exams		Total Marks
		Continuous Mode	Sessional Exams		Total	Marks	Duration	
			Marks	Duration				
BP601T	Medicinal Chemistry III – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP602T	Pharmacology III – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP603T	Herbal Drug Technology – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP604T	Biopharmaceutics and Pharmacokinetics – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP605T	Pharmaceutical Biotechnology– Theory	10	15	1 Hr	25	75	3 Hrs	100
BP606T	Pharmaceutical Quality Assurance– Theory	10	15	1 Hr	25	75	3 Hrs	100
BP607P	Medicinal chemistry III – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP608P	Pharmacology III – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP609P	Herbal Drug Technology – Practical	5	10	4 Hrs	15	35	4 Hrs	50
<b>Total</b>		<b>75</b>	<b>120</b>	<b>18 Hrs</b>	<b>195</b>	<b>555</b>	<b>30 Hrs</b>	<b>750</b>

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### Semester VII

Course code	Name of the course	Internal Assessment				End Semester Exams		Total Marks
		Continuous Mode	Sessional Exams		Total	Marks	Duration	
			Marks	Duration				
BP701T	Instrumental Methods of Analysis – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP702T	Industrial Pharmacy – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP703T	Pharmacy Practice – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP704T	Novel Drug Delivery System – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP705 P	Instrumental Methods of Analysis – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP706 PS	Practice School*	25	-	-	25	125	5 Hrs	150
<b>Total</b>		<b>70</b>	<b>70</b>	<b>8Hrs</b>	<b>140</b>	<b>460</b>	<b>21 Hrs</b>	<b>600</b>

\* The subject experts at college level shall conduct examinations

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### Semester VIII

Course code	Name of the course	Internal Assessment				End Semester Exams		Total Marks
		Continuous Mode	Sessional Exams		Total	Marks	Duration	
			Marks	Duration				
BP801T	Biostatistics and Research Methodology – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP802T	Social and Preventive Pharmacy – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP803ET	Pharmaceutical Marketing – Theory	10 + 10 = 20	15 + 15 = 30	1 + 1 = 2 Hrs	25 + 25 = 50	75 + 75 = 150	3 + 3 = 6 Hrs	100 + 100 = 200
BP804ET	Pharmaceutical Regulatory Science – Theory							
BP805ET	Pharmacovigilance – Theory							
BP806ET	Quality Control and Standardization of Herbals – Theory							
BP807ET	Computer Aided Drug Design – Theory							
BP808ET	Cell and Molecular Biology – Theory							
BP809ET	Cosmetic Science – Theory							
BP810ET	Experimental Pharmacology – Theory							
BP811ET	Advanced Instrumentation Techniques – Theory							
BP812ET	Dietary Supplements and Nutraceuticals - Theory							
BP813ET	Pharmaceutical Product Development – Theory							
BP814PW	Project Work	-	-	-	-	150	4 Hrs	150
	<b>Total</b>	<b>40</b>	<b>60</b>	<b>4 hrs</b>	<b>100</b>	<b>450</b>	<b>16 hrs</b>	<b>550</b>

**10. Program Committee**

**10.1** The B. Pharm. program shall have a Program Committee constituted by the Principal of Bombay College of Pharmacy in consultation with all the Heads of the departments.

**10.2** The composition of the Program Committee shall be as follows:

A senior teacher shall be the Chairperson; One Teacher from each department; and four student representatives of the program (one from each academic year), nominated by the Principal of Bombay College of Pharmacy.

**10.3 Duties of the Program Committee:**

- i. Periodically review the progress of the classes.
- ii. Discuss the problems concerning curriculum, syllabus and the conduct of classes.
- iii. Discuss 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. Communicate 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 Sessional exam (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.

**11.1. End semester examinations**

The End Semester Examinations for each theory and practical course through semesters I to VIII shall be conducted by the college with subject experts recommended by the Board of Studies.

Internal assessment: Continuous mode

The marks allocated for Continuous mode of Internal Assessment shall be awarded as per the scheme given below

**Table-X: Scheme for awarding internal assessment: Continuous mode**

<b>Theory</b>	
<b>Criteria</b>	<b>Maximum Marks</b>
	<b>100/50</b>
Attendance (Refer Table – XI for the breakup of marks based on percentage attendance)	4/2
Academic activities (Average of any 3 activities e.g. quiz, assignment, open book test, field work, group discussion and seminar)	3/1.5
Student – Teacher interaction	3/1.5
<b>Total</b>	<b>10/5</b>
<b>Practical</b>	
Attendance (Refer Table – XI for the breakup of marks based on percentage attendance)	2
Based on Practical Records, Regular viva voce, etc.	3
<b>Total</b>	<b>5</b>

**Table- XI: Guidelines for the allotment of marks for attendance**

Percentage of Attendance	Theory	Practical
95 – 100	4	2
90 – 94	3	1.5
85 – 89	2	1
80 – 84	1	0.5
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 below. The average marks of two Sessional exams shall be computed for internal assessment as per the requirements given in Tables – X.

Sessional exam shall be conducted for 30 marks for theory and shall be computed for 15 marks. Similarly, Sessional exam for practical shall be conducted for 40 marks and shall be computed for 10 marks.

#### Question paper pattern for theory Sessional examinations for subjects having University examination

S. No.	Question Type	Choice	Maximum Marks
1	Multiple Choice Questions (MCQs) OR Objective Type Questions (Answer questions compulsory)	10 multiple choice questions of 1 mark each OR 5 multiple choice questions of 2 marks each	10
2	Short answer questions	Answer 2 out of 3 questions	10
3	Long answer questions	Answer 1 out of 2 questions	10
	Total		30

#### Question paper pattern for practical sessional examinations

S. No.	Questions	Maximum marks
1	Synopsis	10
2	Experiments	25
3	Viva-voce	5
	<b>Total</b>	<b>40</b>

### 12. Promotion and award of grades

A student shall be declared PASS and eligible for a grade in a course in the B. Pharm. program if he/she secures at least 50% marks in that particular course including internal assessment. For example, to be declared as PASS and to be eligible for a grade, the student has to secure a minimum of 50 marks of the total of 100 including continuous mode of assessment and end semester theory examination and in the case of practical examination the student has to secure a minimum of 25 marks in the total 50 including internal assessment and end semester examination in practicals.

**13. Carry forward of marks**

In case a student fails to secure the minimum 50% in any Theory or Practical course as specified in 11.2.1, then he/she shall reappear for the end semester examination of that course. However, the students marks in the Internal Assessment shall be carried forward and the student shall be entitled to a 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 XIII. The exact dates of examinations shall be notified from time to time.

**Table-XII: Tentative schedule of end semester examinations**

Semester	For Regular Candidates	Another re-exam will be conducted
I, III, V and VII	October/November (exact dates will be announced at the beginning of the Academic Year). For those students who have been declared “failed”, there will be a supplementary exam after seven days of the declaration of the results.	April/May (exact dates will be announced at the beginning of the Academic Year)
II, IV, VI and VIII	April/May (exact dates will be announced at the beginning of the Academic Year). For those students who have been declared “failed” there will be a supplementary exam after seven days of the declaration of the results.	November/December (exact dates will be announced at the beginning of the Academic Year)



**Question paper pattern for End Semester theory examinations (75 marks)**

S. No.	Question type	No of questions	Marks for each question	Marks
1	Multiple Choice Questions (MCQs) or Objective Type Questions	20 or 10	1 or 2	20
2	Questions for which answers should be brief	7 to be answered from the set of 9	5	35
3	Questions for which answers should be lengthy	2 to be answered from the set of 3	10	20
<b>Total</b>				<b>75</b>

**Question paper pattern for End Semester theory examinations (35 marks)**

S. No.	Question type	No of questions	Marks for each question	Marks
1	Questions for which answers should be brief	5 to be answered from the set of 7	5	25
2	Questions for which answers should be lengthy	1 to be answered from the set of 2	10	10
<b>Total</b>				<b>35</b>

**Question paper pattern for End Semester practical examinations (35 marks)**

S. No.	Questions	Maximum marks
1	Synopsis	5
2	Experiments	25
3	Viva-voce	5



## **16. Academic Progression**

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

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, VI, VII and VIII 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 as per the norms specified in 26.

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, VI, VII and VIII 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.

**17. Grading of performances**

**17.1. 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 – XIII.

**Table – XIII: Conversion of percentage to letter grade and grade point**

Percentage of Marks Obtained	Letter Grade	Grade Point	Remarks
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 according to the schedule mentioned in Table XII.

**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, 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

$$SGPA = \frac{C1G1 + C2G2 + C3G3 + C4G4 + C5G5}{C1 + C2 + C3 + C4 + C5}$$

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

$$SGPA = \frac{C1G1 + C2G2 + C3G3 + C4 * ZERO + C5G5}{C1 + C2 + C3 + C4 + C5}$$

### 19. 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:

$$CGPA = \frac{C1S1 + C2S2 + C3S3 + C4S4 + C5S5 + C6S6 + C7S7 + C8S8}{C1 + C2 + C3 + C4 + C5 + C6 + C7 + C8}$$

where C<sub>1</sub>, C<sub>2</sub>, C<sub>3</sub>... is the total number of credits for semester I, II, III.... and S<sub>1</sub>, S<sub>2</sub>, S<sub>3</sub>... is the SGPA of semester I, II, III...

### 20. Conversion of CGPA to percentage

The conversion of CGPA to percentage is obtained by multiplying the CGPA by the factor 9.5 or as announced and amended by BOS of Bombay College of Pharmacy from time to time.

### 21. Project work

All students shall carry out a project in semester VIII; the area of work may be mutually agreed by the student and the teacher appointed to supervise the project work (project guide). At the end of the project work, the student will submit a report (typed and bound) not less than 30 pages. The report should have the following sections: objectives of the project, methodology adopted, results and discussions and conclusion. The project work may be carried out individually or in group of 5 students (maximum). The students working in a group should individually prepare and submit the report. The project will be evaluated by the guide and an external examiner appointed by Board of Studies. The project shall be evaluated according to the following criteria.

The report will be assessed for 75 marks as per the following break up – Objectives (15 marks), Methodology (20 marks); Results and Discussion (25 Marks), Conclusion (15 Marks). Beside the report, the student will do a presentation of the project work (open defense type) which will also be assessed (by the guide and the external examiner) for 75 marks as per the following break up – Content (25 marks); Presentation and communication (20 marks); Questions and Answers (30 marks).

### 22. Extracurricular Activities

Two mandatory Extracurricular Credits will be required to be earned by a student to obtain a Degree.

Each student has to be involved in activities that entail a contribution of a minimum of 50 hours over the 4-year of UG studies in the following manner: 10 hours in FY; 20 hours in SY, 10 hours in TY and 10 hours in Final Year B. Pharm.

If, by Final Year commencement, a student fails to earn these mandatory hours (40 hours) as stipulated above he / she will have to do 10 additional monitored hours in the Final Year of Pharm. (that is a total of 60).

The students' progress, in terms of hours & quality of participation shall be monitored and recorded by the Extra Curricular Committee (ECCom). The ECC Grade awarded will be either 'O', 'A' or 'B'.

#### The following activities are eligible for extracurricular credits:

Representing College at ECCom. approved competitions like Avishkar/Anveshan/ NCC/others

Engaging in the co- & extra-curricular activities of the College Associations / Departments (These activities have to be certified by the students in charge. HOD and/or Principal).

Being a member of the College Magazine Committee or Students' Council or any approved College Student Body.

Enrolling in activities organized by the Student Council and other bodies approved by College.

Participating in Sports, certified by the College.

Involving in the International programmes of the College.

Students are advised to check the College website for the data submission procedure for their activity log.



### **23. Industrial training**

Every candidate shall be required to work for at least 150 hours spread over four weeks in a Pharmaceutical Industry/Hospital. It includes Production unit, Quality Control department, Quality Assurance department, Analytical laboratory, Chemical manufacturing unit, Pharmaceutical R&D, Hospital (Clinical Pharmacy), Clinical Research Organization, Community Pharmacy, etc. The industrial training shall be carried out in the period (vacation) between the 6<sup>th</sup> and 7<sup>th</sup> Semesters and on completion of the training the student shall make a presentation before his/her class and the faculty of BCP as well as submit a report (typed and bound, minimum 25 pages on the knowledge and skill sets acquired during the industrial training) to the Principal of Bombay College of Pharmacy to be eligible for the 2 credits assigned to industrial training.

### **24. Practice School**

In the VII semester, every candidate shall undergo practice school for a period of 150 hours evenly distributed throughout the semester. The student shall opt for any one of the domains for practice school declared by the program committee from time to time.

At the end of the practice school, every student shall submit a printed report (25 pages) on the practice school he/she attended. Along with the Exams of Semester VII, the report submitted by the student on the knowledge and skills acquired by the student through practice school shall be evaluated by the an internal/external examiner appointed by the Board of Studies and a grade point awarded based on the evaluation.

### **25. College Social Responsibility (CSR)**

Two mandatory CSR Credits will be required to be earned by each student to obtain a degree.

These credits have to be completed over semesters I to VI by working with an NGO assigned by the CSR Department or any activity qualifying as CSR as deemed by the College.

The CSR Credits is based on a total of 50 hours of actual activity with the assigned NGO or CSR activity of the College.

This CSR activity will be monitored by CSR Committee of the College.

The CSR Grade awarded will be either 'O', 'A' or 'B'.

### **26. 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 rank. Moreover, the candidates should have completed the B. Pharm program in minimum prescribed number of years, (four years) for the award of rank.

### **27. Award of degree**

Candidates who fulfill the requirements mentioned above shall be eligible for award of the degree of Bachelor of Pharmacy during the ensuing convocation announced by the University of Mumbai.

### **28. Duration for completion of the program of study**

The maximum duration for the completion of the program shall be double the actual duration of the program, in other words not more than 8 years, failing which, the students will have to seek fresh admission to the B. Pharm. program according to the rules in force at period of time.

### **29. Rejoining the program after a break of study**

A student who seeks rejoin the program after break of study will have to seek approval from the Principal of Bombay College of Pharmacy after paying a condonation fee as decided by the college. A student with more than 2 years of break in attendance will have to seek re-admission as per the rules of the Government of Maharashtra (Directorate of Technical Education) and University of Mumbai in force at that period in time.



### **30. ADDENDUM**

Wherever an issue has not been covered by these Autonomy Rules of the College, the Rules and Statutes of the University of Mumbai would apply, as long as the latter does not go against the spirit of the College Autonomy arrangements.

**NOTE: UNIVERSITY GRANTS COMMISSION (PROMOTION OF ACADEMIC INTEGRITY AND PREVENTION OF PLAGIARISM IN HIGHER EDUCATIONAL INSTITUTIONS) REGULATIONS, 2018 New Delhi, the 23rd July, 2018, shall be applicable to all project reports/ all written reports that have to be submitted as part of the B. Pharm. program. The details of the regulations may be accessed at [www.ugc.ac.in](http://www.ugc.ac.in).**