

## **1.3.2**

# **1. Minutes of college curriculum meeting**



PADMASHREE DR. VITHALRAO VIKHE PATIL FOUNDATION'S  
**COLLEGE OF PHARMACY,**

**VILAD GHAT, PO. MIDC, AHMEDNAGAR(MS)**

Phone No. (0241) 2778044 /2777217. Fax No. (0241) 2778044

E-mail ID : [pdcopha\\_anrr@rediffmail.com](mailto:pdcopha_anrr@rediffmail.com)

Permanently Affiliated to University of Pune, Pune.

Approved by AICTE, PCI, New Delhi & Recognized by UGC, New Delhi.



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Date: - 28.08.2015

**Academic Year 2015 -2016**

**Minutes of the Meeting:-**

1. Course structure and syllabus of Bachelor of pharmacy (F. Y.B. Pharmacy) programme is implemented with effect from academic year 2015- 2016 as credit and grading based semester system.
2. The subject of the F.Y.B.Pharm for 2015-2016 is as prescribed in the course structure of Bachelor of pharmacy 2013 pattern.
3. From academic year 2015-2016 semester pattern is implemented for Third Y. B. Pharm (semester V and semester VI)
4. The subject introduced for T.Y.B.Pharmacy in semester pattern are as follows,


**SEMESTER V: -**

1. Industrial Pharmacy (T + P)
2. Pharm. Analysis- III (T+P)
3. Medicinal chemistry- I (T+P)
4. Pharmacology –II (T+P)
5. Analytical Pharmacognosy & Extraction Technology
6. Pharmaceutical Business Management & Disaster Management (T)
7. Active Pharmaceutical Ingredients Technology (T).

**SEMESTER VI:-**

1. Industrial Pharmacy –II (T+P)
  2. Pharmaceutical Analysis- IV ((T+P)
  3. Medicinal Chemistry-II (T+P)
  4. Pharmacology-III (T+P)
  5. Natural Product Chemistry (T+P)
  6. Bioorganic Chemistry & Drug Design (T)
  7. Pharmaceutical Biotechnology (T)
5. For M. Pharmacy previous pattern (2013 pattern) is implemented as it is with credit and grading system.



  
**Principal**  
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Coph Academic (2016/17/11) \*\*\*\*\*

Date:-04.07.2016

**Academic Year 2016 -2017**

**Minutes of the Meeting:-**

1. Course structure and syllabus of Bachelor of pharmacy (S. Y. B. Pharmacy) programme is implemented with effect from academic year 2016- 2017 as credit and grading based semester system.
2. The subject of the S.Y.B.Pharm for 2016-2017 is as prescribed in the course structure of Bachelor of pharmacy 2013 pattern.
3. From academic year 2016-2017 semester pattern is implemented for Final Y. B. Pharm (semester VII and semester VIII)
4. The subject introduced for Final.Y.B.Pharmacy in semester pattern are as follows,

**SEMESTER VII: -**

1. Sterile Product (T + P)
2. Pharm. Analysis- V (T+P)
3. Medicinal chemistry- III (T+P)
4. Pharmacology –IV (T+P)
5. Natural Drug Technology (T+P)
6. Bio pharmaceuticals & Pharmacokinetics (T)
7. Pharmaceutical Jurisprudence (T).

**SEMESTER VIII:-**

1. Advanced Drug Delivery System (T+P)
  2. Cosmetic Science ((T+P)
  3. Pharmaceutical Analysis -VI (T+P)
  4. Medicinal Chemistry IV (T+P)
  5. Pharmacology – V (Including Biostatistics) (T+P)
  6. Natural Products (T)
  7. Quality Assurance Technology (T)
5. For M. Pharmacy previous pattern (2013 pattern) is implemented as it is with credit and grading system.



*[Signature]*  
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**Academic Year 2017 -2018**

**Minutes of the Meeting:-**

1. Course structure and syllabus of Bachelor of pharmacy (T. Y. B. Pharmacy) programme is implemented with effect from academic year 2017- 2018 as credit and grading based semester system.
2. The subject of the T.Y.B.Pharm for 2017-2018 is as prescribed in the course structure of Bachelor of pharmacy 2013 pattern.
3. For M. Pharmacy previous pattern (2013 pattern) is implemented as it is with credit and grading system.



*Ganesh*  
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*Coph/Academic/2018-19/51*

Date: - 20.07.2018

### Academic Year 2018 -2019

#### Minutes of the Meeting:-

1. Course structure and syllabus of Bachelor of pharmacy (Final Y. B. Pharmacy) programme is implemented with effect from academic year 2018- 2019 as credit and grading based semester system.
2. The subject of the Final Y.B.Pharm for 2018-2019 is as prescribed in the course structure of Bachelor of pharmacy 2013 pattern.
3. From academic year 2018-2019 Savitribai Phule Pune University implemented new course structure and syllabus based on pharmacy council of India syllabus for F.Y.B.Pharmacy (2018 pattern)
4. The course structure and syllabus is in semester pattern.
5. As per the course structure the course are divided in to University and Non University examination.
6. The structures having PCB group in 12<sup>th</sup> standard have to appear for remedial Mathematics.
7. The students having PCM group in 12<sup>th</sup> standard have to appear for remedial Biology.
8. The remedial Mathematics, Remedial Biology and communication skill are the Non University examination.
9. The course introduced for F.Y.B.Pharmacy are as follows,

#### SEMESTER - I: -

1. Human Anatomy & Physiology (T + P)
2. Pharm. Analysis- I (T+P)
3. Pharmaceutics (T+P)
4. Pharmaceutical Inorganic Chemistry (T+P)
5. Communication skill (T+P)
6. Remedial Biology (T + P) / Remedial Mathematics (T)

#### SEMESTER -II:-

1. Human Anatomy & Physiology -II (T+P)
2. Pharmaceutical Organic Chemistry-I ((T+P)
3. Biochemistry (T+P)
4. Pathophysiology (T)
5. Computer Application in Pharmacy (T+P)
6. Environmental Science (T)



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10. In semester II computer Application in Pharmacy (T+P) and Environmental science (T) are non-University Examination.

11. From academic year 2018-2019 Savitribai Phule Pune University implemented new course structure of syllabus based in Pharmacy Council of India for F.Y. M. Pharmacy (2018 pattern).

12. The courses introduced for F.Y.M.Pharmacy are as follows,

**A) M. Pharm. (Pharmaceutics):-**

**SEMESTER - I: -**

1. Modern Pharmaceutical Analytical Techniques (T)
2. Drug Delivery System (T)
3. Modern Pharmaceutics (T)
4. Regulatory Affairs (T)
5. Pharmaceutics Practical -I
6. Seminar / Assignment

**SEMESTER -II:-**

1. Molecular Pharmaceutics (T)
2. Advanced Bio pharmaceutics & Pharmacokinetics (T)
3. Computer Aided Drug Delivery System (T)
4. Cosmetic & Cosmeceuticals (T)
5. Pharmaceutics Practical-II
6. Seminar / Assignment

**B) M. Pharm. (Pharmaceutical Chemistry):-**


**SEMESTER - I: -**

1. Modern Pharmaceutical Analytical Techniques (T)
2. Advanced Organic Chemistry -I(T)
3. Advanced Medicinal Chemistry (T)
4. Chemistry of Natural Product (T)
5. Pharmaceutical Chemistry Practical -I
6. Seminar / Assignment

**SEMESTER -II:-**

1. Advanced Speared Analysis (T)
2. Advanced Organic Chemistry-II (T)
3. Computer Aided Drug Design (T)
4. Pharmaceutical Process Chemistry (T)
5. Pharmaceutical Organic Chemistry-II
6. Seminar / Assignment



  
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**C) M. Pharm. (Pharmaceutical Quality Assurance Technique):-**

**SEMESTER - I: -**

1. Modern Pharmaceutical Analytical Techniques (T)
2. Quality Management System (T)
3. Quality Control and Quality Assurance (T)
4. Product Development & Technology Transfer (T)
5. Pharmaceutical Quality Assurance Practical-I
6. Seminar / Assignment

**SEMESTER -II:-**

1. Hazards and Safety Management (T)
2. Pharmaceutical Validation (T)
3. Audits and Regulatory Compliance (T)
4. Pharmaceutical Manufacturing Technology (T)
5. Pharmaceutical Quality Assurance Practical-II
6. Seminar / Assignment

**D) M. Pharm. (Pharmacology):-**

**SEMESTER - I: -**

1. Modern Pharmaceutical Analytical Techniques (T)
2. Advanced Pharmacology (T)
3. Pharmacological and Toxicological Screening Method-I (T)
4. Cellular and Molecular Pharmacology (T)
5. Pharmacology Practical-I
6. Seminar / Assignment

**SEMESTER -II:-**

1. Advanced Pharmacology-I (T)
2. Pharmacological and Toxicological Screening Method-II (T)
3. Principal of Drug Discovery (T)
4. Experimental Pharmacology Practical -I
5. Pharmacology Practical-II
6. Seminar / Assignment



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Coph / Academic / 2019-20 / 65

Date: - 11.06.2019

**Academic Year 2019 -2020**

**Minutes of the Meeting:-**

1. From academic year 2019-2020, Savitribai Phule Pune University implemented course structure ,syllabus based on Pharmacy council of India for F.Y.B.Pharm.(2019 pattern)
2. The course heads are same but course content is revised and it is mentioned in course structure of F.Y.B.Pharm.
3. From academic year 2019-2020 Savitribai Phule Pune University implemented course structure and syllabus based on pharmacy council of India syllabus for F.Y.B.Pharmacy (2018 pattern)
4. The course introduced for S.Y.B.Pharm. are as follow,

**SEMESTER - III: -**

1. Pharmaceutical Organic Chemistry-II (T + P)
2. Physical Pharmaceutics-I (T + P)
3. Pharmaceutical Microbiology (T + P)
4. Pharmaceutical Engineering (T+P)

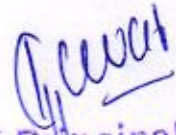
**SEMESTER -IV:-**

1. Pharmaceutical Organic Chemistry-III (T+P)
  2. Medicinal Chemistry-I (T+P)
  3. Physical Pharmaceutics -II (T+P)
  4. Pharmacology-I(T+P)
  5. Pharmacognosy & Phytochemistry -I (T+P)
5. The course introduced for M.Pharm (Semester-III) (2018 pattern) are as follows,

**SEMESTER -III: - Common for all specializations**

1. Research Methodology and Biostatistics
2. Journal club
3. Discussion Presentation (Proposal Presentation)
4. Research work



  
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## 1.3.2

### **2. Number of courses in all programmes**

**MASTER OF PHARMACY COURSE STRUCTURE  
SPECIALIZATION : PHARMACEUTICS**

Sem. No	Paper	Scheme of Teaching Hrs/Weeks		Scheme of Credit		Scheme of Examination Theory			Practical			Total (Including 50 marks of Internal assessment)
		Theory	Practical	Theory	Practical	Hrs.	Marks		Hrs.	Marks		
						UE	UE	IE	UE	UE	IE	
I	Advanced Analytical Techniques	4	8	4	4	3	50	50	8	50	50	200
	Research Methodology	4		4		3	50	50				
	Advanced Pharmaceutics	4	8	4	4	3	50	50	8	50	50	
	Elective-I	3		3		3	50	50				
	Seminar				2			50				
II	Formulations & Development	4	8	4	4	3	50	50	8	50	50	200
	Drug Regulatory Affairs	4		4		3	50	50				
	Novel Drug Delivery Systems	4		4		3	50	50				
	Elective-II	3		3		3	50	50				
	Seminar		4		2			50				
III	Research work		12		6							50
	Seminar on Research Envisaged for Dissertation				4		50					
	Seminar on recent trends in Pharmaceutical Sciences				4			50				
	Research work		36		18							
	Seminar on Dissertation				4		50					
IV	Research work		36		18			150				150
	Dissertation & Defense (viva/voce)											
			<b>Total</b>	<b>30</b>	<b>70</b>			<b>100</b>			<b>Grant Total</b>	<b>100</b>
			<b>Total Credits = 100</b>									<b>1600</b>

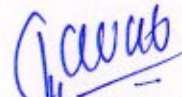


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**MASTER OF PHARMACY COURSE STRUCTURE  
SPECIALIZATION : PHARMACEUTICAL CHEMISTRY**

Sem. No	Paper	Scheme of Teaching Hrs/Weeks		Scheme of Credit		Scheme of Examination Theory			Practical			Total (Including 50 marks of Internal assessment)
		Theory	Practical	Theory	Practical	Hrs. Marks			Hrs. Marks			
						UE	UE	IE	UE	UE	IE	
I	Advanced Analytical Techniques	4	8	4	4	3	50	50	8	50	50	200
	Research Methodology	4		4		3	50	50				
	Advanced Pharmaceutical Chemistry	4	8	4	4	3	50	50	8	50	50	100
	Elective-I	3		3		3	50	50				200
	Seminar				2			50				100
II	Advanced Medicinal Chemistry	4	8	4	4	3	50	50	8	50	50	50
	Drug Regulatory Affairs	4		4		3	50	50				200
	Drug Design	4		4		3	50	50				100
	Elective-II	3		3		3	50	50				100
	Seminar		4		2	3	50	50				100
	Research work		12		6			50				50
III	Seminar on Research Envisaged for Dissertation				4		50					50
	Seminar on recent trends in Pharmaceutical Chemistry				4			50				50
	Research work		36		18							50
IV	Seminar on Dissertation				4		50					50
	Research work		36		18		150					150
	Dissertation & Defense (viva/voce)											100
	<b>Total</b>			<b>30</b>	<b>70</b>		<b>100</b>					<b>100</b>
				<b>Total Credits = 100</b>						<b>Grant Total</b>		<b>1600</b>



  
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**MASTER OF PHARMACY COURSE STRUCTURE  
SPECIALIZATION : PHARMACOLOGY**

Sem. No	Paper	Scheme of Teaching Hrs/Weeks		Scheme of Credit		Scheme of Examination Theory			Practical			Total (Including 50 marks of Internal assessment)
		Theory	Practical	Theory	Practical	Hrs.	Marks		Hrs.	Marks		
						UE	UE	IE		UE	UE	
I	Advanced Analytical Techniques	4	8	4	4	3	50	50	8	50	50	200
	Research Methodology	4		4		3	50	50				100
	Advanced Pharmacology (Preclinical Evaluation of Drugs)	4	8	4	4	3	50	50	8	50	50	200
	Elective-I	3		3		3	50	50				100
	Seminar				2			50				50
II	Clinical Pharmacology	4	8	4	4	3	50	50	8	50	50	200
	Drug Regulatory Affairs	4		4		3	50	50				100
	Molecular Pharmacology	4		4		3	50	50				100
	Elective-II	3		3		3	50	50				100
	Seminar		4			3	50	50				100
	Research work		12		2			50				50
	Seminar on Research Envisaged for Dissertation				6							
III	Seminar on recent trends in Pharmacology				4		50					50
	Research work				4			50				50
IV	Seminar on Dissertation		36		18							
	Research work				4		50					50
	Dissertation & Defense (viva/voce)		36		18		150					150
							100					100
			<b>Total</b>	<b>30</b>	<b>70</b>						<b>Grant Total</b>	<b>1600</b>
			<b>Total Credits = 100</b>									



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**MASTER OF PHARMACY COURSE STRUCTURE  
SPECIALIZATION : QUALITY ASSURANCE  
TECHNIQUES**

Sem. No	Paper	Scheme of Teaching Hrs/Weeks		Scheme of Credit		Scheme of Examination Theory			Practical			Total (Including 50 marks of Internal assessment)
		Theory	Practical	Theory	Practical	Hrs.	Marks		Hrs.	Marks		
						UE	UE	IE		UE	UE	
I	Advanced Analytical Techniques	4	8	4	4	3	50	50	8	50	50	200
	Research Methodology	4		4		3	50	50				100
	Advanced Quality Assurance Techniques (CGMP & Documentation )	4	8	4	4	3	50	50	8	50	50	200
	Elective-I	3		3		3	50	50				100
	Seminar				2			50				50
II	Pharmaceutical Validation	4	8	4	4	3	50	50	8	50	50	200
	Drug Regulatory Affairs	4		4		3	50	50				100
	Quality Planning and Analysis	4		4		3	50	50				100
	Elective-II	3		3		3	50	50				100
	Seminar		4		2			50				50
	Research work		12		6							50
	Seminar on Research Envisaged for Dissertation				4		50					50
III	Seminar on recent trends in Quality Assurance Techniques				4			50				50
	Research work		36		18							50
	Seminar on Dissertation				4		50					50
IV	Research work		36		18		150					150
	Dissertation & Defense (viva/voce)						100					100
			<b>Total</b>	<b>30</b>	<b>70</b>						<b>Grant Total</b>	<b>1600</b>

Total Credits = 100

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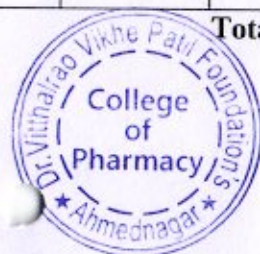
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**Annexure I**

Scheme of Examination for eight semesters of B. Pharm. Course Name and number of heads of passing, number of paper, duration of examination, maximum marks, minimum marks for passing, Sessional Examination, duration, maximum marks.

**Semester-I****Class- First Yr. B. Pharmacy**

Subject Code	Subject	Scheme of Teaching Hrs/Weeks	Scheme of Credit	End Semester Examination			Internal Examination			Total Maximum Marks for subject	Minimum marks for passing subject
				Duration (Hours)	Maximum marks	Min for passing	Duration (Hours)	Sessional Maximum marks	Continuous Assessment marks		
1.1.1 T	Pharmaceutics- I	3	3	3	60	24	1.5	20	20	100	40
1.1.1 P	Pharmaceutics- I	3	2	4	60	24	3	20	20	100	40
1.1.2 T	Modern Dispensing Practices	3	3	3	60	24	1.5	20	20	100	40
1.1.2 P	Modern Dispensing Practices	3	2	4	60	24	3	20	20	100	40
1.1.3 T	Pharmaceutical Inorganic Chemistry	3	3	3	60	24	1.5	20	20	100	40
1.1.3 P	Pharmaceutical Inorganic Chemistry	3	2	4	60	24	3	20	20	100	40
1.1.4 T	Pharmaceutical Organic Chemistry-I	3	3	3	60	24	1.5	20	20	100	40
1.1.4 P	Pharmaceutical Organic Chemistry-I	3	2	4	60	24	3	20	20	100	40
1.1.5 T	Human Anatomy & Physiology-I	3	3	3	60	24	1.5	20	20	100	40
1.1.5 P	Human Anatomy & Physiology-I	3	2	4	60	24	3	20	20	100	40
1.1.6 T	Communication and soft skill development	3	3	3	60	24	1.5	20	20	100	40

**Total Credits = 28**

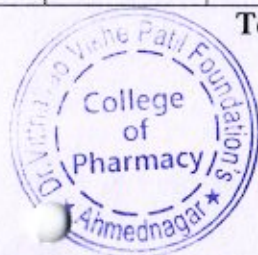
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## Semester-II

## Class- First Yr. B. Pharmacy

Subject Code	Subject	Scheme of Teaching Hrs/Weeks	Scheme of Credit	End Semester Examination			Internal Examination			Total Maximum Marks for subject	Minimum marks for passing subject
				Duration (Hours)	Maximum marks	Min for passing	Duration (Hours)	Maximum marks	Continuous Assessment marks		
1.2.1 T	Pharmaceutics- II	3	3	3	60	24	1.5	20	20	100	40
1.2.1 T	Dosage form design	3	3	3	60	24	1.5	20	20	100	40
1.2.2 P	Dosage form design	3	2	4	60	24	3	20	20	100	40
1.2.3 T	Pharmaceutical Organic Chemistry-II	3	3	3	60	24	1.5	20	20	100	40
1.2.3 P	Pharmaceutical Organic Chemistry-II	3	2	4	60	24	3	20	20	100	40
1.2.4 T	Human Anatomy & Physiology-II	3	3	3	60	24	1.5	20	20	100	40
1.2.4 P	Human Anatomy & Physiology-II	3	2	4	60	24	3	20	20	100	40
1.2.5 T	Pharmacognosy	3	3	3	60	24	1.5	20	20	100	40
1.2.5 P	Pharmacognosy	3	2	4	60	24	3	20	20	100	40
1.2.6 T	Pharmaceutical Analysis I	3	3	3	60	24	1.5	20	20	100	40
1.2.6 P	Pharmaceutical Analysis I	3	2	4	60	24	3	20	20	100	40

Total Credits = 28

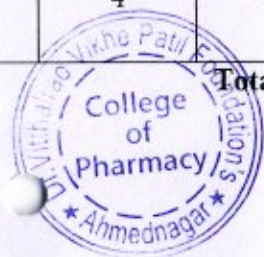


## Semester-III

## Class- Second Yr. B. Pharmacy

Subject Code	Subject	Scheme of Teaching Hrs/Weeks	Scheme of Credit	End Semester Examination			Internal Examination			Total Maximum Marks for subject	Minimum marks for passing subject
				Duration (Hours)	Maximum marks	Min for passing	Duration (Hours)	Maximum marks	Continuous Assessment marks		
2.3.1 T	Physical Pharmaceutics- I	3	3	3	60	24	1.5	20	20	100	40
2.3.1 P	Physical Pharmaceutics- I	3	2	4	60	24	3	20	20	100	40
2.3.2 T	Pharmaceutical Microbiology	3	3	3	60	24	1.5	20	20	100	40
2.3.2 P	Pharmaceutical Microbiology	3	2	4	60	24	3	20	20	100	40
2.3.3 T	Pharmaceutical Biochemistry	3	3	3	60	24	1.5	20	20	100	40
2.3.3 P	Pharmaceutical Biochemistry	3	2	4	60	24	3	20	20	100	40
2.3.4 T	Pharmaceutical Organic Chemistry-III	3	3	3	60	24	1.5	20	20	100	40
2.3.4 P	Pharmaceutical Organic Chemistry-III	3	2	4	60	24	3	20	20	100	40
2.3.5 T	Pharmacology-I	3	3	3	60	24	1.5	20	20	100	40
2.3.6 T	Pharmacognosy & Phytochemistry - I	3	3	3	60	24	1.5	20	20	100	40
2.3.6 P	Pharmacognosy & Phytochemistry - I	3	2	4	60	24	3	20	20	100	40

Total Credits = 28



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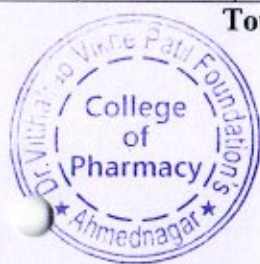


## Semester-IV

## Class- Second Yr. B. Pharmacy

Subject Code	Subject	Scheme of Teaching Hrs/Weeks	Scheme of Credit	End Semester Examination			Internal Examination			Total Maximum Marks for subject	Minimum marks for passing subject
				Duration (Hours)	Maximum marks	Min for passing	Duration (Hours)	Maximum marks	Continuous Assessment marks		
2.4.1 T	Physical Pharmaceutics-II	3	3	3	60	24	1.5	20	20	100	40
2.4.1 P	Physical Pharmaceutics-II	3	2	4	60	24	3	20	20	100	40
2.4.2 T	Pathophysiology & Clinical Biochemistry	3	3	3	60	24	1.5	20	20	100	40
2.4.2 P	Pathophysiology & Clinical Biochemistry	3	2	4	60	24	3	20	20	100	40
2.4.3 T	Pharmaceutical Organic Chemistry-IV	3	3	3	60	24	1.5	20	20	100	40
2.4.3 P	Pharmaceutical Organic Chemistry-IV	3	2	4	60	24	3	20	20	100	40
2.4.4 T	Pharmaceutical Analysis-II	3	3	3	60	24	1.5	20	20	100	40
2.4.4 P	Pharmaceutical Analysis-II	3	2	4	60	24	3	20	20	100	40
2.4.5 T	Pharmacognosy & Phytochemistry - II	3	3	3	60	24	1.5	20	20	100	40
2.4.5 P	Pharmacognosy & Phytochemistry - II	3	2	4	60	24	3	20	20	100	40
2.4.6 T	Pharmaceutical Engineering	3	3	3	60	24	1.5	20	20	100	40

Total Credits = 28



Subject Code	Subject	Scheme of Teaching Hrs/Weeks	Scheme of Credit	End Semester Examination			Internal Examination			Total Maximum Marks for subject	Minimum marks for passing subject
				Duration (Hours)	Maximum marks	Min for passing	Duration (Hours)	Maximum marks	Continuous Assessment marks		
3.5.1 T	Industrial Pharmacy-I	3	3	3	60	24	1.5	20	20	100	40
3.5.1 P	Industrial Pharmacy-I	3	2	4	60	24	3	20	20	100	40
3.5.2 T	Pharmaceutical Analysis-III	3	3	3	60	24	1.5	20	20	100	40
3.5.2 P	Pharmaceutical Analysis-III	3	2	4	60	24	3	20	20	100	40
3.5.3 T	Medicinal Chemistry-I	3	3	3	60	24	1.5	20	20	100	40
3.5.3 P	Medicinal Chemistry-I	3	2	4	60	24	3	20	20	100	40
3.5.4 T	Pharmacology-II	3	3	3	60	24	1.5	20	20	100	40
3.5.4 P	Pharmacology-II	3	2	4	60	24	3	20	20	100	40
3.5.5 T	Analytical Pharmacognosy & Extraction Technology	3	3	3	60	24	1.5	20	20	100	40
3.5.5 P	Analytical Pharmacognosy & Extraction Technology	3	2	4	60	24	3	20	20	100	40
3.5.6 T	Pharmaceutical Business Management & Disaster Management	3	3	3	60	24	1.5	20	20	100	40
3.5.7 T	Active Pharmaceutical Ingredients Technology	3	3	3	60	24	1.5	20	20	100	40

Total Credits = 31



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## Semester-VI

## Class- Third Yr. B. Pharmacy

Subject Code	Subject	Scheme of Teaching Hrs/Weeks	Scheme of Credit	End Semester Examination			Internal Examination			Total Maximum Marks for subject	Minimum marks for passing subject
				Duration (Hours)	Maximum marks	Min for passing	Duration (Hours)	Maximum marks	Continuous Assessment marks		
3.6.1 T	Industrial Pharmacy-II	3	3	3	60	24	1.5	20	20	100	40
3.6.1 P	Industrial Pharmacy-II	3	2	4	60	24	3	20	20	100	40
3.6.2 T	Pharmaceutical Analysis-IV	3	3	3	60	24	1.5	20	20	100	40
3.6.2 P	Pharmaceutical Analysis-IV	3	2	4	60	24	3	20	20	100	40
3.6.3 T	Medicinal Chemistry-II	3	3	3	60	24	1.5	20	20	100	40
3.6.3 P	Medicinal Chemistry-II	3	2	4	60	24	3	20	20	100	40
3.6.4 T	Pharmacology-III	3	3	3	60	24	1.5	20	20	100	40
3.6.4 P	Pharmacology-III	3	2	4	60	24	3	20	20	100	40
3.6.5 T	Natural Product Chemistry	3	3	3	60	24	1.5	20	20	100	40
3.6.5 P	Natural Product Chemistry	3	2	4	60	24	3	20	20	100	40
3.6.6 T	Bioorganic Chemistry & Drug Design	3	3	3	60	24	1.5	20	20	100	40
3.6.7 T	Pharmaceutical Biotechnology	3	3	3	60	24	1.5	20	20	100	40

Total Credits = 31



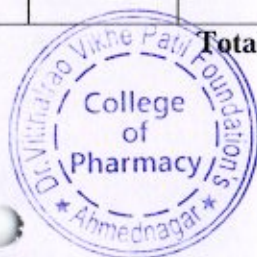
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## Semester-VII

## Class- Final Yr. B. Pharmacy

Subject Code	Subject	Scheme of Teaching Hrs/Weeks	Scheme of Credit	End Semester Examination			Internal Examination			Total Maximum Marks for subject	Minimum marks for passing subject
				Duration (Hours)	Maximum marks	Min for passing	Duration (Hours)	Maximum marks	Continuous Assessment marks		
4.7.1 T	Sterile Products	3	3	3	60	24	1.5	20	20	100	40
4.7.1 P	Sterile Products	3	2	4	60	24	3	20	20	100	40
4.7.2 T	Pharmaceutical Analysis-V	3	3	3	60	24	1.5	20	20	100	40
4.7.2 P	Pharmaceutical Analysis-V	3	2	4	60	24	3	20	20	100	40
4.7.3 T	Medicinal Chemistry-III	3	3	3	60	24	1.5	20	20	100	40
4.7.3 P	Medicinal Chemistry-III	3	2	4	60	24	3	20	20	100	40
4.7.4 T	Pharmacology-IV	3	3	3	60	24	1.5	20	20	100	40
4.7.4 P	Pharmacology-IV	3	2	4	60	24	3	20	20	100	40
4.7.5 T	Natural Drug Technology	3	3	3	60	24	1.5	20	20	100	40
4.7.5 P	Natural Drug Technology	3	2	4	60	24	3	20	20	100	40
4.7.6 T	Bio-pharmaceutics & Pharmacokinetics	3	3	3	60	24	1.5	20	20	100	40
4.7.7 T	Pharmaceutical Jurisprudence	3	3	3	60	24	1.5	20	20	100	40

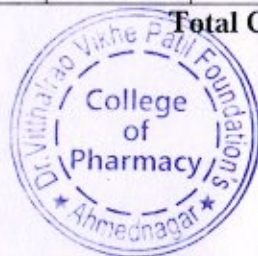
Total Credits = 31



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Subject Code	Subject	Scheme of Teaching Hrs/Weeks	Scheme of Credit	End Semester Examination			Internal Examination			Total Maximum Marks for subject	Minimum marks for passing subject
				Duration (Hours)	Maximum marks	Min for passing	Duration (Hours)	Maximum marks	Continuous Assessment marks		
4.8.1 T	Advanced Drug Delivery System	3	3	3	60	24	1.5	20	20	100	40
4.8.1 P	Advanced Drug Delivery System	3	2	4	60	24	3	20	20	100	40
4.8.2 T	Cosmetic science	3	3	3	60	24	1.5	20	20	100	40
4.8.2 P	Cosmetic science	3	2	4	60	24	3	20	20	100	40
4.8.3 T	Pharmaceutical Analysis-VI	3	3	3	60	24	1.5	20	20	100	40
4.8.3 P	Pharmaceutical Analysis-VI	3	2	4	60	24	3	20	20	100	40
4.8.4 T	Medicinal Chemistry-IV	3	3	3	60	24	1.5	20	20	100	40
4.8.4 P	Medicinal Chemistry-IV	3	2	4	60	24	3	20	20	100	40
4.8.5 T	Pharmacology-V(Including Biostatistics)	3	3	3	60	24	1.5	20	20	100	40
4.8.5 P	Pharmacology-V(Including Biostatistics)	3	2	4	60	24	3	20	20	100	40
4.8.6 T	Natural Products: Commerce, Industry & Regulations	3	3	3	60	24	1.5	20	20	100	40
4.8.7 T	Quality Assurance Tech.	3	3	3	60	24	1	20	20	100	40

Total Credits = 31



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## 1.3.2

**3. Number of courses  
that include  
experiential learning**

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**RULES & SYLLABUS**

**FIRST YEAR BACHELOR OF PHARMACY (B. Pharm.) COURSE  
(EFFECTIVE FROM ACADEMIC YEAR 2018-2019)**



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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
<b>Total</b>		<b>32/34<sup>s</sup>/36<sup>u</sup></b>	<b>4</b>	<b>27/29<sup>s</sup>/30<sup>u</sup></b>

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

<sup>u</sup>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
<b>Total</b>		<b>32</b>	<b>4</b>	<b>29</b>

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



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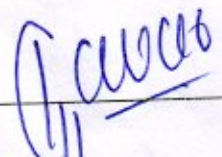
Table-IV: Course of study for semester IV

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
<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 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
<b>Total</b>		<b>27</b>	<b>5</b>	<b>26</b>



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

**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
<b>Total</b>		<b>28</b>	<b>5</b>	<b>24</b>

\* 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	Pharma Marketing Management	3 + 3 = 6	1 + 1 = 2	4 + 4 = 8
BP804ET	Pharmaceutical Regulatory Science			
BP805ET	Pharmacovigilance			
BP806ET	Quality Control and Standardization of Herbals			
BP807ET	Computer Aided Drug Design			
BP808ET	Cell and Molecular Biology			
BP809ET	Cosmetic Science			
BP810ET	Experimental Pharmacology			
BP811ET	Advanced Instrumentation Techniques			
BP812ET	Dietary Supplements and Nutraceuticals			
BP813PW	Project Work	12	-	6
<b>Total</b>		<b>24</b>	<b>4</b>	<b>22</b>

Table-IX: Semester wise credits distribution

Semester	Credit Points
I	27/29 <sup>§</sup> /30 <sup>¶</sup>
II	29
III	26
IV	28
V	26
VI	26
VII	24
VIII	22
Extracurricular/ Co curricular activities	01*
<b>Total credit points for the program</b>	<b>209/211<sup>§</sup>/212<sup>¶</sup></b>

\* 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 colleges from time to time.

<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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RULES & SYLLABUS

FIRST YEAR MASTER OF PHARMACY (M. Pharm.) COURSE

(EFFECTIVE FROM ACADEMIC YEAR 2018-2019)



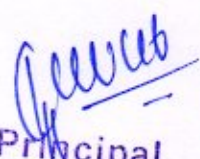
  
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Table - 2: Course of study for M. Pharm. (Pharmaceutics)

Course Code	Course	Credit Hours	Credit Points	Hrs./week	Marks
<b>Semester I</b>					
MPH101T	Modern Pharmaceutical Analytical Techniques	4	4	4	100
MPH102T	Drug Delivery System	4	4	4	100
MPH103T	Modern Pharmaceutics	4	4	4	100
MPH104T	Regulatory Affairs	4	4	4	100
MPH105P	Pharmaceutics Practical I	12	6	12	150
	Seminar/Assignment	7	4	7	100
Total		35	26	35	650
<b>Semester II</b>					
MPH201T	Molecular Pharmaceutics (Nano Tech and Targeted DDS)	4	4	4	100
MPH202T	Advanced Biopharmaceutics & Pharmacokinetics	4	4	4	100
MPH203T	Computer Aided Drug Delivery System	4	4	4	100
MPH204T	Cosmetic and Cosmeceuticals	4	4	4	100
MPH205P	Pharmaceutics Practical II	12	6	12	150
	Seminar/Assignment	7	4	7	100
Total		35	26	35	650



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Table - 4: Course of study for M. Pharm. (Pharmaceutical Chemistry)

Course Code	Course	Credit Hours	Credit Points	Hrs./week	Marks
Semester I					
MPC101T	Modern Pharmaceutical Analytical Techniques	4	4	4	100
MPC1012T	Advanced Organic Chemistry -I	4	4	4	100
MPC103T	Advanced Medicinal chemistry	4	4	4	100
MPC104T	Chemistry of Natural Products	4	4	4	100
MPC105P	Pharmaceutical Chemistry Practical I	12	6	12	150
	Seminar/Assignment	7	4	7	100
	Total	35	26	35	650
Semester II					
MPC201T	Advanced Spectral Analysis	4	4	4	100
MPC202T	Advanced Organic Chemistry -II	4	4	4	100
MPC203T	Computer Aided Drug Design	4	4	4	100
MPC204T	Pharmaceutical Process Chemistry	4	4	4	100
MPC205P	Pharmaceutical Chemistry Practical II	12	6	12	150
	Seminar/Assignment	7	4	7	100
	Total	35	26	35	650



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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	Pharmaceutical Quality Assurance Practical I	12	6	12	150
	Seminar/Assignment	7	4	7	100
	Total	35	26	35	650
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 Quality Assurance Practical II	12	6	12	150
	Seminar/Assignment	7	4	7	100
	Total	35	26	35	650



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Table - 10: Course of study for (Pharmacology)

Course Code	Course	Credit Hours	Credit Points	Hrs./wk	Marks
Semester I					
MPL 101T	Modern Pharmaceutical Analytical Techniques	4	4	4	100
MPL 102T	Advanced Pharmacology-I	4	4	4	100
MPL 103T	Pharmacological and Toxicological Screening Methods-I	4	4	4	100
MPL 104T	Cellular and Molecular Pharmacology	4	4	4	100
MPL 105P	Pharmacology Practical I	12	6	12	150
-	Seminar/Assignment	7	4	7	100
Total		35	26	35	650
Semester II					
MPL 201T	Advanced Pharmacology II	4	4	4	100
MPL 202T	Pharmacological and Toxicological Screening Methods-II	4	4	4	100
MPL 203T	Principles of Drug Discovery	4	4	4	100
MPL 204T	Experimental Pharmacology practical- II	4	4	4	100
MPL 205P	Pharmacology Practical II	12	6	12	150
-	Seminar/Assignment	7	4	7	100
Total		35	26	35	650



**SAVITRIBAI PHULE PUNE UNIVERSITY**

**FACULTY OF SCIENCE AND TECHNOLOGY**



**RULES & SYLLABUS**

**FIRST YEAR BACHELOR OF PHARMACY (B. Pharm.) COURSE –  
2019 pattern (EFFECTIVE FROM ACADEMIC YEAR 2019-2020)**



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Table-I: Course of study for semester I

Course code	Name of the course	No. of Hours per week/Total no of hours	Tutorial	Credit points
BP101T	Human Anatomy and Physiology I- Theory	3/45	1	4
BP102T	Pharmaceutical Analysis I – Theory	3/45	1	4
BP103T	Pharmaceutics I – Theory	3/45	1	4
BP104T	Pharmaceutical Inorganic Chemistry – Theory	3/45	1	4
BP105T	Communication skills – Theory *	2/30	-	2
BP106RBT BP106RMT	Remedial Biology/ Remedial Mathematics – Theory*	2/30	-	D
BP107P	Human Anatomy and Physiology – Practical	4/60	-	2
BP108P	Pharmaceutical Analysis I – Practical	4/60	-	2
BP109P	Pharmaceutics I – Practical	4/60	-	2
BP110P	Pharmaceutical Inorganic Chemistry – Practical	4/60	-	2
BP111P	Communication skills – Practical*	2/30	-	1
BP112RBP	Remedial Biology – Practical*	2/30	-	D
	<b>Total</b>	<b>32/34<sup>S</sup>/36<sup>#</sup>/4 80/510<sup>S</sup>/540<sup>#</sup></b>	<b>4</b>	<b>27</b>

#Applicable ONLY for the students who have studied Mathematics / Physics / Chemistry at HSC and appearing for Remedial Biology (RB) course. However for Remedial biology and Mathematics no credits to be allotted only 50 % passing i.e D grade will be prerequisite.

\$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 per week/Total no of hours	Tutorial	Credit points
BP201T	Human Anatomy and Physiology II Theory	3/45	1	4
BP202T	Pharmaceutical Organic Chemistry I Theory	3/45	1	4
BP203T	Biochemistry – Theory	3/45	1	4
BP204T	Pathophysiology – Theory	3/45	1	4
BP205T	Computer Applications in Pharmacy Theory *	3/45	-	3
BP206T	Environmental sciences – Theory *	3/45	-	3
BP207P	Human Anatomy and Physiology II Practical	4/60	-	2
BP208P	Pharmaceutical Organic Chemistry I Practical	4/60	-	2
BP209P	Biochemistry – Practical	4/60	-	2
BP210P	Computer Applications in Pharmacy Practical*	4/60	-	1
<b>Total</b>		<b>32/480</b>	<b>4</b>	<b>29</b>

\*Non University Examination (NUE)

**Table-III: Course of study for semester III**

Course code	Name of the course	No. of Hours per week/Total no of hours	Tutorial	Credit points
BP301T	Pharmaceutical Organic Chemistry II Theory	3/45	1	4
BP302T	Physical Pharmaceutics I – Theory	3/45	1	4
BP303T	Pharmaceutical Microbiology – Theory	3/45	1	4
BP304T	Pharmaceutical Engineering – Theory	3/45	1	4
BP305P	Pharmaceutical Organic Chemistry II Practical	4/60	-	2
BP306P	Physical Pharmaceutics I – Practical	4/60	-	2
BP307P	Pharmaceutical Microbiology – Practical	4/60	-	2
BP 308P	Pharmaceutical Engineering –Practical	4/60	-	2
<b>Total</b>		<b>28/420</b>	<b>4</b>	<b>24</b>



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Table-IV: Course of study for semester IV

Course code	Name of the course	No. of Hours per week/Total no of hours	Tutorial	Credit points
BP401T	Pharmaceutical Organic Chemistry III- Theory	3/45	1	4
BP402T	Medicinal Chemistry I – Theory	3/45	1	4
BP403T	Physical Pharmaceutics II – Theory	3/45	1	4
BP404T	Pharmacology I – Theory	3/45	1	4
BP405T	Pharmacognosy and Phytochemistry I- Theory	3/45	1	4
BP406P	Medicinal Chemistry I – Practical	4/60	-	2
BP407P	Physical Pharmaceutics II – Practical	4/60	-	2
BP408P	Pharmacology I – Practical	4/60	-	2
BP409P	Pharmacognosy and Phytochemistry I – Practical	4/60	-	2
<b>Total</b>		<b>31/465</b>	<b>5</b>	<b>28</b>

Table-V: Course of study for semester V

Course code	Name of the course	No. of Hours per week/Total no of hours	Tutorial	Credit points
BP501T	Medicinal Chemistry II – Theory	3/45	1	4
BP502T	Formulative Pharmacy- Theory	3/45	1	4
BP503T	Pharmacology II – Theory	3/45	1	4
BP504T	Pharmacognosy and Phytochemistry II- Theory	3/45	1	4
BP505T	Pharmaceutical Jurisprudence – Theory	3/45	1	4
BP506P	Formulative Pharmacy – Practical	4/60	-	2
BP507P	Pharmacology II – Practical	4/60	-	2
BP508P	Pharmacognosy and Phytochemistry II – Practical	4/60	-	2
<b>Total</b>		<b>27/405</b>	<b>5</b>	<b>26</b>



Table-VI: Course of study for semester VI

Course code	Name of the course	No. of Hours per week/Total no of hours	Tutorial	Credit points
BP601T	Medicinal Chemistry III – Theory	3/45	1	4
BP602T	Pharmacology III – Theory	3/45	1	4
BP603T	Herbal Drug Technology – Theory	3/45	1	4
BP604T	Biopharmaceutics and Pharmacokinetics – Theory	3/45	1	4
BP605T	Pharmaceutical Biotechnology – Theory	3/45	1	4
BP606T	Quality Assurance – Theory	3/45	1	4
BP607P	Medicinal chemistry III – Practical	4/60	-	2
BP608P	Pharmacology III – Practical	4/60	-	2
BP609P	Herbal Drug Technology – Practical	4/60	-	2
<b>Total</b>		<b>30/450</b>	<b>6</b>	<b>30</b>

Table-VII: Course of study for semester VII

Course code	Name of the course	No. of Hours per week/Total no of hours	Tutorial	Credit points
BP701T	Instrumental Methods of Analysis – Theory	3/45	1	4
BP702T	Industrial Pharmacy – Theory	3/45	1	4
BP703T	Pharmacy Practice – Theory	3/45	1	4
BP704T	Novel Drug Delivery System – Theory	3/45	1	4
BP705P	Instrumental Methods of Analysis – Practical	4/60	-	2
BP706PS	Practice School*	12/180	-	6
<b>Total</b>		<b>28/420</b>	<b>5</b>	<b>24</b>

\* 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 per week/Total no of hours	Tutorial	Credit points
BP801T	Biostatistics and Research Methodology	3/45	1	4
BP802T	Social and Preventive Pharmacy	3/45	1	4
BP803ET	Pharmaceutical Marketing	3 + 3 = 6/90	1 + 1 = 2	4 + 4 = 8
BP804ET	Pharmaceutical Regulatory Science			
BP805ET	Pharmacovigilance			
BP806ET	Quality Control and Standardizations of Herbals			
BP807ET	Computer Aided Drug Design			
BP808ET	Cell and Molecular Biology			
BP809ET	Cosmetic Science			
BP810ET	Experimental Pharmacology			
BP811ET	Advanced Instrumentation Techniques			
BP812PW	Project Work	12/180	-	6
<b>Total</b>		<b>24/360</b>	<b>4</b>	<b>22</b>

Table-IX: Semester wise credits distribution

Semester	Credit Points
I	27
II	29
III	26
IV	28
V	26
VI	26
VII	24
VIII	22
Extracurricular/ Co curricular activities	01*
<b>Total credit points for the program</b>	<b>209</b>

\* 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 colleges 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.



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# SAVITRIBAI PHULE PUNE UNIVERSITY

## FACULTY OF SCIENCE AND TECHNOLOGY



### RULES & SYLLABUS

**FIRST YEAR MASTER OF PHARMACY (M. Pharm.) COURSE  
(EFFECTIVE FROM ACADEMIC YEAR 2019-2020)**



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

Course Code	Course	Credit Hours	Credit Points	Hrs./wk	Marks
<b>SEMESTER I</b>					
MPAT101T	Modern Pharmaceutical Analytical Techniques	4	4	4	100
MPH102T	Drug Delivery System	4	4	4	100
MPH103T	Modern Pharmaceutics	4	4	4	100
MPH104T	Regulatory Affair	4	4	4	100
MPH105P	Pharmaceutics Practical I	12	6	12	150
-	Seminar/Assignment	7	4	7	100
<b>Total</b>		<b>35</b>	<b>26</b>	<b>35</b>	<b>650</b>
<b>SEMESTER II</b>					
MPH201T	Molecular Pharmaceutics (Nano Tech and Targeted DDS)	4	4	4	100
MPH202T	Advanced Biopharmaceutics & Pharmacokinetics	4	4	4	100
MPH203T	Computer Aided Drug Development	4	4	4	100
MPH204T	Cosmetic & Cosmeceuticals	4	4	4	100
MPH205P	Pharmaceutics Practical II	12	6	12	150
-	Seminar/Assignment	7	4	7	100
<b>Total</b>		<b>35</b>	<b>26</b>	<b>35</b>	<b>650</b>



Table - 4: Course of study for M. Pharm. (Pharmaceutical Chemistry)

Course Code	Course	Credit Hours	Credit Points	Hrs./week	Marks
<b>SEMESTER I</b>					
MPAT101T	Modern Pharmaceutical Analytical Techniques	4	4	4	100
MPC1012T	Advanced Organic Chemistry – I	4	4	4	100
MPC103T	Advanced Medicinal Chemistry	4	4	4	100
MPC104T	Chemistry of Natural Products	4	4	4	100
MPC105P	Pharmaceutical Chemistry Practical I	12	6	12	150
-	Seminar / Assignment	7	4	7	100
<b>Total</b>		<b>35</b>	<b>26</b>	<b>35</b>	<b>650</b>
<b>SEMESTER II</b>					
MPC201T	Advanced Spectral Analysis	4	4	4	100
MPC202T	Advanced Organic Chemistry –II	4	4	4	100
MPC203T	Computer Aided Drug Design	4	4	4	100
MPC204T	Pharmaceutical Process Chemistry	4	4	4	100
MPC205P	Pharmaceutical Chemistry Practical II	12	6	12	150
-	Seminar / Assignment	7	4	7	100
<b>Total</b>		<b>35</b>	<b>26</b>	<b>35</b>	<b>650</b>



*(Signature)*

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

Course Code	Course	Credit Hours	Credit Points	Hrs./wk	Marks
<b>SEMESTER I</b>					
MPAT101T	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	Pharmaceutical Quality Assurance Practical I	12	6	12	150
-	Seminar/Assignment	7	4	7	100
<b>Total</b>		<b>35</b>	<b>26</b>	<b>35</b>	<b>650</b>
<b>SEMESTER II</b>					
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 Quality Assurance Practical II	12	6	12	150
-	Seminar/Assignment	7	4	7	100
<b>Total</b>		<b>35</b>	<b>26</b>	<b>35</b>	<b>650</b>



Table - 10: Course of study for (Pharmacology)

Course Code	Course	Credit Hours	Credit Points	Hrs./wk	Marks
<b>SEMESTER I</b>					
MPAT101T	Modern Pharmaceutical Analytical Techniques	4	4	4	100
MPL102T	Advanced Pharmacology - I	4	4	4	100
MPL 103T	Pharmacological and Toxicological Screening Methods-I	4	4	4	100
MPL104T	Cellular and Molecular Pharmacology	4	4	4	100
MPL105P	Pharmacology Practical I	12	6	12	150
-	Seminar/Assignment	7	4	7	100
<b>Total</b>		<b>35</b>	<b>26</b>	<b>35</b>	<b>650</b>
<b>SEMESTER II</b>					
MPL201T	Advanced Pharmacology II	4	4	4	100
MPL 202T	Pharmacological and Toxicological Screening Methods-II	4	4	4	100
MPL203T	Principles of Drug Discovery	4	4	4	100
MPL204T	Clinical Research and Pharmacovigilance	4	4	4	100
MPL205P	Pharmacology Practical II	12	6	12	150
-	Seminar/Assignment	7	4	7	100
<b>Total</b>		<b>35</b>	<b>26</b>	<b>35</b>	<b>650</b>

