

# **SELF ASSESSMENT REPORT (SAR)**

**Submitted To**



**By**



## **BHARATI VIDYAPEETH'S COLLEGE OF PHARMACY**

Permanently affiliated to University of Mumbai

Recognised under section 2(f) and 12(B) of UGC Act 1956

Approved by PCI and AICTE

University of Mumbai Approved Research Centre for  
Pharmaceutical Sciences

Ranked in the band of 51 – 75 by NIRF 2017

Sector – 8, C.B.D. Belapur, Navi Mumbai – 400614,  
Maharashtra, India



: Founder :  
**Hon. Dr. Patangrao Kadam**  
M.A., LL.B., Ph.D.

**BHARATI VIDYAPEETH'S  
COLLEGE OF PHARMACY**

(Affiliated to University of Mumbai)

**Accredited by NBA**



: Principal :  
**Dr. Vilasrao J. Kadam**  
M.Pharm. Ph.D.

Sector 8, C.B.D., Navi Mumbai 400 614. Ph. : 27571122, 27572131 Fax : 27574515

Ref. No. : BV/COP/NM/ 369 /2017 - 2018

Date : 05/10/2017

To,

Member Secretary,  
National Board of Accreditation,  
NBCC Place, East Tower, 4th floor  
Bhisham Pitamah Marg Pragati Vihar,  
New Delhi 110003, INDIA

Respected Sir/Madam,

**Sub:** Bharati Vidyapeeth's College of Pharmacy, CBD-Belapur, Navi-Mumbai, Maharashtra -  
Submission of the updated eSelf Assessment Report (eSAR) – Institutional Assessment and  
Accreditation by NBA- Regarding.

**Ref:** Application No. 1864-11/04/2016.

Dear Sir,

With respect to the subject and reference cited above, herewith we are submitting the updated Self Assessment Report (eSAR). The above said SAR has been uploaded on the NBA website ([www.nba.org](http://www.nba.org)) and also on our college website ([www.bvcop.in](http://www.bvcop.in)).

Self Assessment Report for Bharati Vidyapeeth's College of Pharmacy, CBD-Belapur, Navi-Mumbai, Maharashtra is hereby submitted for your kind consideration for Institutional assessment and accreditation by NBA through the peer team.

This is for your kind information.

Thanking you,

Yours faithfully

**PRINCIPAL**  
B.V.'s College of Pharmacy  
Navi Mumbai-400614.



## SAR Contents

Serial code	Title	Page no
<b>PART A</b>	<b>Institutional Information</b>	<b>4 – 12</b>
<b>PART B</b>	<b>Criteria Summary</b>	<b>13 – 126</b>
	<b>Program Level Criteria</b>	<b>15 – 105</b>
1.	Vision, Mission, Program Educational Objectives	<b>15 – 18</b>
2.	Program Curriculum and Teaching – Learning Processes	<b>19 – 26</b>
3.	Course Outcomes and Program Outcomes	<b>27 – 51</b>
4.	Students' Performance	<b>52 – 66</b>
5.	Faculty Information and Contributions	<b>67 – 83</b>
6.	Facilities and Technical Support	<b>84 – 91</b>
7.	Continuous Improvement	<b>92 – 105</b>
	<b>Institute Level Criteria</b>	<b>106 – 126</b>
8.	Student Support Systems	<b>106 – 114</b>
9.	Governance, Institutional Support and Financial Resources	<b>115 – 126</b>
<b>PART C</b>	<b>Declaration by the Institution</b>	<b>127</b>
	Annexure – 1: Program Outcomes	<b>128 – 130</b>
	Annexure – 2a: Program Curriculum (CBSGS Pattern)	<b>131 – 274</b>
	Annexure – 2b: Program Curriculum (CBCS Pattern)	<b>275 – 324</b>
	Annexure – 3: Minutes of Governing Body	<b>325 – 332</b>
	Annexure – 4: Audited Statement of Accounts	<b>333 – 344</b>

## **PART A: Institutional Information**

**PART A: Institutional Information**

1. **Name and Address of the Institution:**  
**BHARATI VIDYAPEETH'S COLLEGE OF PHARMACY**  
**SECTOR – 8, C.B.D. BELAPUR, NAVI MUMBAI – 400614**
2. **Name and Address of the Affiliating University:**  
**The Registrar, University of Mumbai, Kalina, Santacruz (E), Mumbai - 400032.**  
**STD Code: 22, Tel. No. 2652 6285**  
**Fax No.: 2652 6893 E.Mail: [coe@exam.mu.ac.in](mailto:coe@exam.mu.ac.in)**  
**Website: <http://mu.ac.in/>**
3. **Year of Establishment:** 1993
4. **Type of the Institution:**

University	
Deemed University	
Autonomous	
Affiliated	<input checked="" type="checkbox"/>
Any Other (Please Specify)	
5. **Ownership Status:**

Central Government	
State Government	
Grant-in-Aid	
Self-Financing	<input checked="" type="checkbox"/>
Trust	
Society	
Section 25 company	
Any other (Please Specify)	

**Provide Details:**

Public Trust Number: F/277-Poona

Society Registration Number: Bom./441 Poona

**6. Other Academic Institutions of the Trust/Society/etc., if any:**

**Bharati Vidyapeeth, Pune  
List of Colleges/Institutes run by the Trust**

Sr. No.	Name of the Institution	Year of Establishment	Program of Study	Location
1.	BV Institute of Pharmacy, Pune	June, 1979	Pharmacy	Erandwane, Pune-411 038
2.	BV New Law College, Kolhapur	June, 1982	Law	R.S. No. 697, Opp. IT Park, Kolhapur
3.	BV Jawaharlal Nehru Institute of Technology, Pune	June, 1983	EJ, ME,CM,IF	Dhankawadi, Pune-411 043
4.	BV College of Engineering, Pune	June, 1983	E&Tc,CM,IT,M E,CH, IS	Dhankawadi, Pune-411 043
5.	BV Dr. Patangrao Kadam College, Sangli	June, 1985	Arts , Science and Commerce	Sangliwadi, Tal.: Miraj, Dist.: Sangli
6.	BV Institute of Pharmacy, Navi Mumbai	June, 1985	Pharmacy	Sector-8, CBD Belapur, Navi Mumbai-614
7.	BV Matoshri Bayabai Shripatrao Kadam Kanya Mahavidyalaya, Kadegaon	June, 1990	Jr. and Sr. Girls College	Kadegaon, Tal: Kadegaon, Dist.: Sangli
8.	BV College of Engineering, Navi Mumbai	June, 1990	E&Tc,CM,IT,M E,CH, IS	Sector-7, Belpada, CBD Belapur, Navi Mumbai-614
9.	BV College of Architecture, Navi Mumbai	June, 1992	Architecture	Sector-7, Belapada, CBD Belapur, Navi Mumbai-614
10.	BV Institute of Management & Research, Navi Mumbai	June, 1994	Management & Research	Sector-8, CBD Belapur, Navi Mumbai - 614
11.	BV Kala Mahavidyalaya, Pune	June, 1996	Fine Arts	Dhankawadi, Pune-411 043
12.	BV College of Pharmacy, Kolhapur	June, 1996	Pharmacy	Morewadi, Tal: Karveer, Dist: Kolhapur
13.	BV New Law College, Sangli	June, 1997	Law	Bharati Vidyapeeth Bhavan, Rajwada Chowk, Si.S. No. 970,

				PethBhag, Sangli-416
14.	BV College of Engineering, New Delhi	June, 1999	E&Tc, CM, IT, ME, CH, IS	A-4, Paschim Vihar, Rohatak Road, New Delhi- 110 063
15.	BV Institute of Computer Applications & Management, New Delhi	June, 1999	MCA & Management	A-4, Paschim Vihar, Rohatak Road, New Delhi- 110 063
16.	BV College of Fine Arts, Pune	June, 2000	Fine Arts	Dhankawadi, Pune-411 043
17.	BV College of Engineering for Women, Pune	June, 2000	E&Tc, CM, IT, ME, CH, IS	Dhankawadi, Pune-411 043
18.	BV Yashwantrao Chavan Law College, Karad	June, 2000	Law	Malkapur- Karad, Tal.: Karad, Dist: Satara
19.	BV Institute of Technology, Palus	June, 2000	E&Tc, CM, IT, ME, CH, IS	Tal.: Palus, Dist.: Sangli
20.	BV College of Engineering, Kolhapur	June, 2001	E&Tc,CM,IT,M E,CH, IS	Morewadi, Near Chitranagari, Kolhapur
21.	BV School of Nursing, Pune-43	June, 2002	Nursing	Dhankawadi, Pune-411 043
22.	BV Institute of Management & Information Technology(MCA Program), Navi Mumbai	June, 2002	Management & Information Technology(MC A Program)	Sec-8, CBD Belapur, Navi Mumbai - 614
23.	BV College of Hotel & Tourism Management Studies, Navi Mumbai	June, 2003	Hotel & Tourism Management Studies	Sec-8, CBD Belapur, Navi Mumbai-614
24.	BV LokneteMohanrao Kadam College of Agriculture, SonsalHingangaon	June, 2003	Agriculture	Sonsal- Hingangaon, Tal: Kadegaon, Dist.: Sangli
25.	BV Abhijit Kadam Football Development Center, Pune 43	June, 2010	Football Development	Dhankawadi, Pune-411 043
26.	BV School of Photography, Pune	June, 2011	Photography,	Dhankawadi, Pune-411 043
27.	BV College of Horticulture, Kadegaon	June, 2012	Horticulture,	Sonsal- Hingangaon, Tal.: Kadegaon, Dist.: Sangli



<b>28.</b>	BV Technical Campus, College of Engineering, Lavale, Pune	June, 2012	E&Tc, CM, IT, ME, CH, IS	Tal.: Mulshi, Dist.: Pune
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**Bharati Vidyapeeth, Pune**  
**List of Colleges under Deemed University/Institutes run by the Trust**

Sr. No	Name of the Institution	Year of Establishment	Program of Study	Location
1.	BVDU Yashwantrao Mohite College of Arts, Science And Commerce, Pune	June, 1978	Arts, Science and Commerce	Erandwane, Pune-411 038
2.	BVDU New Law College, Pune	June, 1978	Law College	Erandwane, Pune-411 038
3.	BVDU Institute of Management & Entrepreneurship Dev., Pune	June, 1978	Management	Erandwane, Pune-411 038
4.	BVDU Poona College of Pharmacy, Pune	June, 1981	Pharmacy	Erandwane, Pune-411 038
5.	BVDU Social Science Centre (MSW), Pune	June, 1981	Social Science	Erandwane, Pune-411 038
6.	BV Abhijit Kadam Institute of Management & Social Science Centre (MSW), Solapur	June, 1982	Management & Social Science	Vijapur Road, Solapur-413 004
7.	BVDU Yashwantrao Chavan Institute of Social Science Studies & Research, Pune	June, 1986	Social Science	Vijapur Road, Solapur-413 004
8.	BVDU Research & Development Centre In Pharmaceutical Sciences & Applied Chemistry, Pune	June, 1986	Pharmaceutical Science & Applied Chemistry	Erandwane, Pune-411 038
9.	BVDU Dental College & Hospital, Pune	June, 1989	Dental College	Dhankawadi, Pune-411 043
10.	BVDU Medical College, Pune	June, 1989	Medical College	Dhankawadi, Pune-411 043
11.	BVDU College of Ayurved, Pune	June, 1990	Ayurvedic College	Dhankawadi, Pune-411 043
12.	BVDU Homoeopathic Medical College, Pune	June, 1990	Homoeopathy	Dhankawadi, Pune-411 043
13.	BVDU College of Nursing, Pune	June, 1992	Nursing	Dhankawadi, Pune-411 043
14.	BVDU Institute of Hotel Management & Catering Technology, Pune	June, 1992	Management & Catering	Dhankawadi, Pune-411 043
15.	BVDU Institute of Management & Research, New Delhi	June, 1992	Management & Research	A-4, Paschim Vihar, Rohatak Road, New Delhi-110



				063
16.	BVDU College of Architecture, Pune	June, 1994	Architecture	Dhankawadi, Pune-411 043
17.	BVDU Institute of Environment Research & Elation, Pune	June, 1994	Environment Research	Dhankawadi, Pune-411 043
18.	BVDU College of Physical Education, Pune	June, 1994	Physical Education	Dhankawadi, Pune-411 043
19.	BVDU Institute of Management, Kolhapur	June, 1994	Management	Kadamwadi, Kolhapur
20.	BVDU YashwantraoMohite Institute of Management, Karad	June, 1994	Management	Malkapur-Karad, Tal.: Karad, Dist.: Satara
21.	BVDU Institute of Management & Rural Development Administration, Sangli	June, 1994	Management & Rural Development Administration	Bharati Vidyapeeth Bhavan, Rajwada Chowk, PethBhag, Sangli-416 416
22.	BVDU Institute of Management, (MCA Program), Kolhapur	June, 1997	Management & MCA	Kadamwadi, Kolhapur
23.	BVDU Yashwantrao Chavan Institute of Management (MCA Programd), Karad	June, 1997	Management	Malkapur-Karad, Tal.: Karad, Dist.: Satara
24.	BVDU School of Optometry, Pune	June, 1998	Optometry	Dhankawadi, Pune-411 043
25.	BVDU Interactive Research School For Health Affairs, (IRSHA), Pune	June, 2001	IRSHA	Dhankawadi, Pune-411 043
26.	BVDU Institute of Management & Entrepreneurship Development (MCA Program), Pune	June, 2001	Management & Entrepreneurship Development &MCA	Erandwane, Pune-411 038
27.	BVDU Institute of Management (MCA Program), Sangli	June, 2001	Management &MCA	Bharati Vidyapeeth Bhavan, Rajwada Chowk, Si. S. No. 970, Peth Bhag, Sangli-416 416
28.	BVDU AbhijitKadam Institute of Management (MCA Program), Solapur	June, 2001	Management &MCA	Vijapur Road, Solapur-413 004
29.	BVDU Rajiv Gandhi Institute Of Technology &	June, 2002	Biotechnology	Dhankawadi, Pune-411 043

	Biotechnology, Pune			
30.	BVDU Dental College & Hosp., Navi Mumbai	June, 2005	Dental	Sector-7, CBD. Belpada, Navi Mumbai 400 614
31.	BVDU Medical College & Hospital, Sangli	June, 2005	Medical	Wanless wadi, Sangli-416 414
32.	BVDU School of Audiology & Speech Language Pathology, Pune	June, 2006	Audiology & Speech Language Pathology	Dhankawadi, Pune-411 043
33.	BVDU Dental College & Hosp., Sangli	June, 2007	Dental	Wanless wadi, Sangli-416 414
34.	BVDU College Of Nursing, Sangli	June, 2007	Nursing	Wanless wadi, Sangli-416 414
35.	BVDU School of Performing Arts (YM College), Pune	June, 2008	Performing Arts	Erandwane, Pune-411 038
36.	BVDU College of Nursing, Navi Mumbai	June, 2009	Nursing	Sector-7, Belpada, CBD Belapur, Navi Mumbai 614
37.	BVDU Centre for Health Management & Research, Pune	June, 2009	Health Management & Research	Dhankawadi, Pune-411 043

**7. Details of all the Programs being offered by the Institution under consideration:**

Sr. No.	Program Name	Year of Start	Intake	Increase in intake, if any	Year of increase	AICTE Approval	Accreditation Status*
1.	B. Pharm	1993	60	No	NA	Yes	Granted provisional accreditation for three years for the period (15 May 2012 to 14 May 2015)
2.	M. Pharm	2003	32	No	NA	Yes	Eligible but not applied

\* Write applicable one:

- ☐ Applying first time
- ☐ Granted provisional accreditation for two years for the period(specify period)
- ☐ Granted accreditation for 5 years for the period (specify period)
- ☐ Not accredited (specify visit dates, year)
- ☐ Withdrawn (specify visit dates, year)
- ☐ Not eligible for accreditation
- ☐ Eligible but not applied

**Note:** Add rows as needed

**8. Programs to be considered for Accreditation vide this application:**

Sr. No.	Program Name
1.	B. Pharmacy

**9. Total number of employees:**

**A. Regular\*Faculty and Staff:**

Items		2016-17 (CAY)		2015-16(CAYm1)		2014-15 (CAYm2)	
		Min	Max	Min	Max	Min	Max
Faculty in Pharmacy	M	9	-	8	-	8	-
	F	13	-	14	-	14	-
Faculty in Sciences & Humanities	M	-	-	-	-	-	-
	F	-	-	-	-	-	-
Non-teaching staff	M	31	-	30	-	30	-
	F	1	-	1	-	1	-

**\* Means –**

- Full time on roll with prescribed pay scale. An employee on contract for a period of not less than two years AND drawing consolidated salary equal or more than applicable gross salary shall only be counted as a regular employee.
- Prescribed pay scales mean pay scales notified by the AICTE/Central Govt. and implementation as prescribed by the State Govt. In case State Govt. prescribes lesser consolidated salary for a particular cadre then same will be considered as reference while counting faculty as a regular faculty.

CAY (Current Assessment Year)

CAYm1 (Current Assessment Year minus 1)

CAYm2 (Current Assessment Year minus 2)

**Note:** In case Institution is running AICTE approved courses in Second shift, separate tables with the relevant heading shall be prepared.

**B. Contractual Staff (Not covered in Table A):**

Items		2016-17 (CAY)		2015-16(CAYm1)		2014-15 (CAYm2)	
		Min	Max	Min	Max	Min	Max
Faculty in Pharmacy	M	-	-	-	-	-	-
	F	-	-	-	-	-	-
Faculty in Sciences & Humanities	M	-	-	-	-	-	-
	F	-	-	-	-	-	-
Non-teaching staff	M	3	-	3	-	3	-
	F	-	-	-	-	-	-

**10. Total number of Pharmacy students:**

**a. Total number of Pharmacy students: UG**

Items	2016-17 (CAY)	2015-16(CAYm1)	2014-15 (CAYm2)
Total no. of boys	73	79	80
Total no. of girls	164	157	176

<b>Total no. of students</b>	237	236	256
<b>b. Total number of Pharmacy students: PG</b>			
<i>Items</i>	<i>2016-17 (CAY)</i>	<i>2015-16(CAYm1)</i>	<i>2014-15 (CAYm2)</i>
<b>Total no. of boys</b>	12	15	14
<b>Total no. of girls</b>	28	38	38
<b>Total no. of students</b>	40	53	52

**c. Total number of Pharmacy students: Ph.D**

<i>Items</i>	<i>2016-17 (CAY)</i>	<i>2015-16(CAYm1)</i>	<i>2014-15 (CAYm2)</i>
<b>Total no. of boys</b>	01	01	01
<b>Total no. of girls</b>	03	03	03
<b>Total no. of students</b>	04	04	04

*(Instruction: The data may be categorized in tabular form in case institute runs UG, PG and doctoral Programs, Please prepare separate table for each level, if applicable)*

**11. Vision of the Institution:**

To emerge as a premier pharmacy college imparting education of high standards.

**12. Mission of the Institution:**

1. To produce pharmacy graduates with high ethical standards, capable of providing quality services to industry, academia, research and mankind at large.
2. To create a centre of excellence for education and research in the field of pharmaceutical sciences.
3. To provide long-standing learning opportunities in pharmaceutical sciences.

**13. Contact Information of the Head of the Institution and NBA coordinator:**

- i. Head of the Institution: Principal  
 Name: Dr.Vilasrao J. Kadam  
 Designation: Principal  
 Mobile No: 9819844888  
 Email id: [drvjk21@gmail.com/](mailto:drvjk21@gmail.com)

- ii. NBA coordinator:  
 Name: Dr. K .R. Jadhav  
 Designation: Vice Principal  
 Mobile No: 9819060675  
 Email id: [drkrj24@gmail.com/](mailto:drkrj24@gmail.com)

## **PART B: Criteria Summary**

**Name of the Program: B. Pharmacy**

Criterion No.	Criteria	Mark /Weightage
<b>Program Level Criteria</b>		
<b>1.</b>	Vision, Mission and Program Educational Objectives	50
<b>2.</b>	Program Curriculum and Teaching –Learning Processes	150
<b>3.</b>	Course Outcomes and Program Outcomes	100
<b>4.</b>	Student's Performance	180
<b>5.</b>	Faculty Information and Contributions	175
<b>6.</b>	Facilities	120
<b>7.</b>	Continuous Improvement	75
<b>Institute Level Criteria</b>		
<b>8.</b>	Student Support Systems	50
<b>9.</b>	Governance, Institutional Support and Financial Resources	100
<b>Total</b>		<b>1000</b>

**NOTE:** In the document wherever word 'Semester' has been used, same shall be read as 'Semester or Annual'. The Institutions may use appropriately whichever is applicable to them.

## Self Assessment Report (SAR)

### Criterion 1

### Vision, Mission and Program Educational Objectives

50

#### 1. Vision, Mission and Program Educational Objectives

(50)

##### 1.1. State the Vision and Mission

(5)

*(Vision statement typically indicates aspirations and Mission statement states the broad approach to achieve aspirations.)*

##### VISION:

To emerge as a premier pharmacy college imparting education of high standards.

##### MISSION:

1. To produce pharmacy graduates with high ethical standards, capable of providing quality services to industry, academia, research and mankind at large.
2. To create a centre of excellence for education and research in the field of pharmaceutical sciences.
3. To provide long-standing learning opportunities in pharmaceutical sciences.

##### 1.2. State the Program Educational Objectives (PEOs)

(5)

*(State the Program Educational Objectives (3 to 5) of the Program seeking accreditation)*

##### Upon completion of the course, graduates will be:

1. Technically and professionally well established in their careers.
2. Well equipped to serve the community by creating awareness about healthcare issues.
3. Well qualified to participate in research and innovations.



**1.3. Indicate where and how the Vision, Mission and PEOs are published and disseminated among stakeholders (15)**

*(Describe where (websites, curricula, posters etc.) the Vision, Mission and PEOs are published and detail the process which ensures awareness among internal and external stakeholders with effective process implementation)  
(Internal stakeholders may include Management, Governing Board Members, faculty, support staff, students etc. and external stakeholders may include employers, industry, alumni, funding agencies, etc.)*

The Vision, Mission and PEOs are published at

- College website <http://www.bvcop.in/>
- Posters and banners in institute premises
- Academic calendar
- Notice boards
- Principal's cabin
- Laboratory journals
- Placement brochure

Apart from this, Mission and Vision is disseminated to all the stakeholders of the Program through faculty meetings, student induction programs, and parent meetings.

**1.4. State the process for defining the Vision & Mission and PEOs of the Program (10)**

*(Articulate the process for defining the Vision, Mission and PEOs of the Program)*

The department established the vision and mission through a consultative process involving the stakeholders of the department, the future scope of the department and the societal requirements as shown in Figure 1.1. In establishing the Vision and Mission of the department, the following steps were followed:

**Step 1:** Vision and Mission of the institute were taken as an origin.

**Step 2:** Views were taken from various stakeholders of the college such as faculty, industry, management, students, parents and alumni.

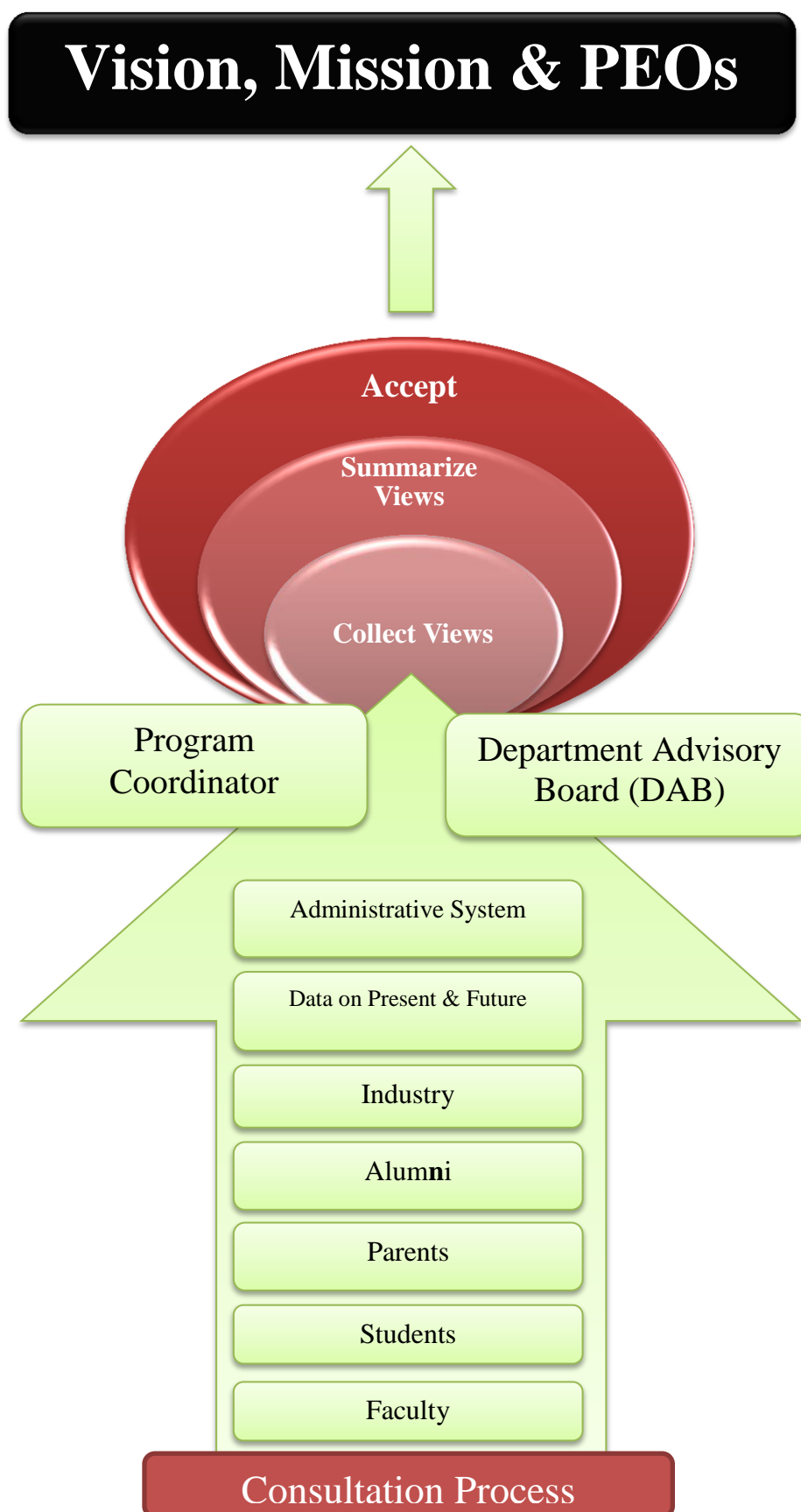
**Step 3:** The accepted views were analysed and reviewed to check the consistency with the Vision and Mission of the Institute.

The Program Educational Objectives were established through a consultation process involving the core constituents such as: **Students, Alumni, Industry, Faculty and Employer.**

**Step 1:** Vision and Mission of the Department were taken as a basis to interact with various Stake- holders and graduate attributes defined by NBA were also kept in view.

**Step 2:** Program Coordinator consulted the key constituents and collected and summarized their views.

**Step 3:** Department Advisory Board deliberated on the views expressed by the Program Coordinator and formulated the accepted views based on which PEOs are to be established.



*Figure 1.1: Consultation Process for defining the Vision & Mission and PEOs*

**1.5. Establish consistency of PEOs with Mission of the Institute (15)**

*(Generate a "Mission of the Institute – PEOs matrix" with justification and rationale of the mapping)*

Our Program Educational Objectives are highly consistent with our Mission Statements to produce theoretically and practically competent pharmacists with research motivation, continuous learning capabilities and high ethical standards.

PEO Statements	M1	M2	M3
<b>PEO1: Technically and professionally well established in their careers.</b>	3	3	3
<b>PEO2: Well equipped to serve the community by creating awareness about healthcare issues.</b>	3	2	3
<b>PEO3: Well qualified to participate in research and innovations.</b>	3	3	3

Justification:

- PEO1 is highly consistent with all the mission components. It is justified through practical and tutorial sessions, mini projects, good University results, product development, placements, expert lectures, Seminars, industry-institute interactions.
- PEO2 is highly consistent with all the mission components. It is justified through product development, co-curricular activities such as health campaigns and blood donation camps, hospital visits, various students clubs, Newsletter, intercollegiate competitions, professional bodies, soft skill trainings which facilitate student to design different competitive system with rational constraints.
- PEO3 is highly consistent with all the mission components. It is justified through Technical Paper Presentations, various case studies, their implementation in the form of mini projects, professional bodies, tech-fests (Rx festival), various clubs at institute level and workshops where student work in team and learn various team building activities in multiflavored environment.

**Note:** M1, M2, ..., Mn are distinct elements of Mission statement. Enter correlation levels 1, 2 or 3 as defined below:

1: Slight (Low)      2: Moderate (Medium)      3: Substantial (High)

It there is no correlation, put "-"

**Note:** In this document wherever the term 'Process' has been used its meaning is process formulation, notification and implementation.

<b>Criterion 2</b>	<b>Program Curriculum and Teaching –Learning Processes</b>	<b>150</b>
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<b>2. Program Curriculum and Teaching-Learning Processes</b>	<b>(150)</b>
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<b>2.1. Program Curriculum</b>	<b>(40)</b>
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<b>2.1.1 Delivery of Syllabus Contents and compliance of the curriculum for attainment of POs</b>	<b>(10)</b>
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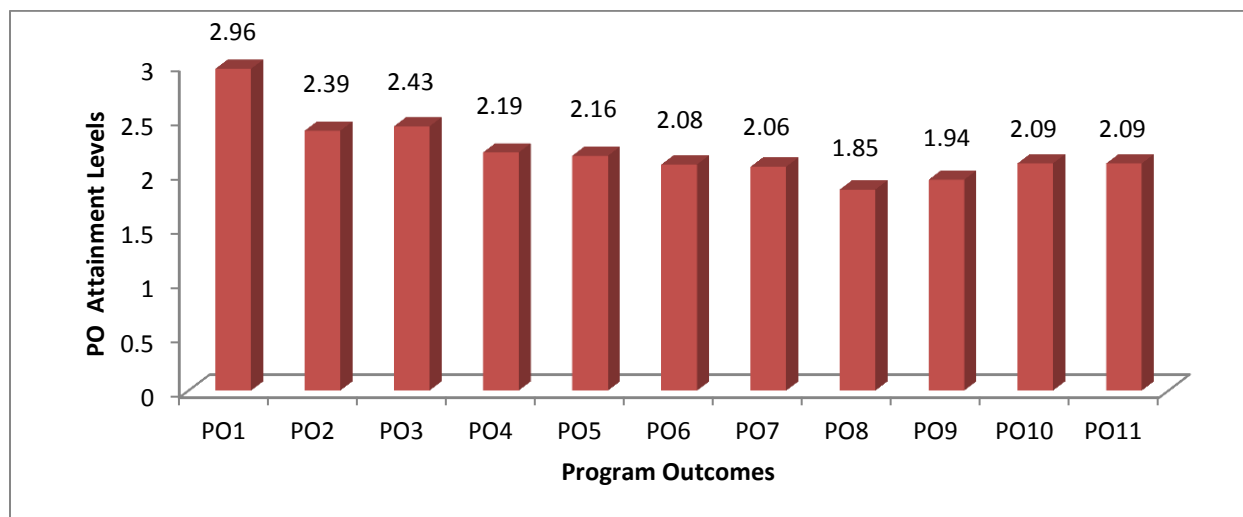
*(State the contents of the syllabus; about the course/learning material/content/laboratory experiments/projects etc. also mention identified curriculum gaps, if any)*

*Note: In case all POs are being demonstrably met through University Curriculum then 2.1.2 will not be applicable and the weightage of 2.1.1 will be 30.*

1. The curriculum of Undergraduate course in Pharmacy is provided by the University of Mumbai. It is a four years degree Program conducted in semesters.
2. Currently two curriculums namely Credit Based Semester Grading System (CBSGS) and Choice Based Credit System (CBCS) are implemented by University of Mumbai. CBSGS and CBCS systems were introduced by University of Mumbai in academic years 2012-13 and 2016-17 respectively (Annexure II a & b)
3. The curriculum is framed by the duly appointed Ad-Hoc committee in Pharmacy by the University of Mumbai under the Faculty of Technology comprising of senior academicians and industrial experts in the field.
4. Syllabus specifies number of lectures and practicals in each course.
5. The Teaching & Examination Scheme specifies the duration and marks of both Internal and External Theory and Practical examination.
6. As per the curriculum:
  - i) The internal exam constitutes continuous internal assessment comprising of periodic test and continuous evaluation.
  - ii) The external exam constitutes end semester examination comprising of theory and practicals.
7. As per the CBSGS curriculum, the percentage of marks for Semester and Internal examination is 70% and 30% respectively. As per the CBCS curriculum, the percentage of marks for Semester and Internal examination is 80% and 20% respectively.
8. Course attainments are calculated after completion of the end semester examination.
9. Program outcome attainments are calculated after completion of all the course attainments of each semester.

The syllabus contents are delivered with the aid of effective audio-visual and multimedia elements and interactive teaching. In addition, to generate interest and enthusiasm among students, innovative teaching and learning techniques are followed in both theory lectures and practical sessions. These include making of charts and models, giving assignments or projects to students based on their area of interest and organizing competitions during practicals. Also weaker students are given additional support by arranging remedial classes for them and by personally getting the University question papers of the concerned subjects solved from them.

The compliance of curriculum for attainment of POs is as shown in figure 2.1.1



**Fig 2.1.1: Compliance of curriculum for attainment of POs**

All POs are reasonably attained ranging between 1.85 and 2.96

### **2.1.1 State the delivery details of the contents beyond the Syllabus for the attainment of POs (20)**

*(Provide details of the additional course/learning material/content/laboratory experiments/projects etc., arising from the gaps identified in 2.1.1 in a tabular form in the format given below)*

As all POs are being demonstrably met through University curriculum, 2.1.2 is not applicable.

### **2.1.2 State the delivery details of the content beyond the Syllabus for the attainment of POs (20)**

*(Provide details of the additional course/ learning material/ content/ laboratory experiments/ projects etc., arising from the gaps identified in 2.1.1 in a tabular form in the format given below)*

Not Applicable

**Note:** Please mention *in detail* whether the Institution has given such inputs and suggestions to the Affiliating University regarding curricular gaps and possible addition of new content/add-on courses in the curriculum, to bridge the gap and to improve attain Program outcome(s).

### **2.1.3. Adherence to Academic Calendar**

**(10)**

*(Demonstrate notified academic calendar & its adherence)*

In the beginning of every academic year, an academic calendar is prepared with an objective to plan the academic activities to be undertaken in the coming year based on the University circular. It is finalized by the college examination committee in consultation with the Principal and other committee members. The calendar specifies the number of days available for teaching excluding Holidays, Sundays and Examination days. The calendar specifies minimum number of lectures and practicals to be conducted

per semester depending upon weightage in the curriculum. It gives dates for conduction of internal theory and practical examinations. The planned dates are subject to change as per the University circular related to examinations. The teaching plan is prepared adhering to the academic calendar and given to the students in the beginning of the semester. Other activities including various cultural events, extra and co-curricular events, health campaigns and sports events are also planned in advance.

## **2.2. Teaching-Learning Processes**

**(110)**

### **2.2.1 Initiatives in teaching and learning process**

**(25)**

*(Implemented teaching-learning process and Initiatives in improving instruction methods, using real world examples, collaborative learning, the quality of laboratory experiments with regard to conduct, record observations, analysis, Feedback collection process; collection, analysis and action taken etc. encouraging bright students, assisting weak students etc. The initiatives, implementation details and impact analysis need to be documented)*

The syllabus is prescribed by the University of Mumbai and hence there is very little scope in going beyond syllabus.

The initiatives in teaching and learning process are done at two levels i.e. for theory classes and practical sessions separately. The mechanism and implementation have been described hereafter.

I] Theory classes: As the onus on education relies mostly on the theory classes, lots of measures are taken to keep the lectures engaging and interactive. Some of the measures taken are:

1. Multimedia elements such as Power Point, Flash, Movie Maker, Animations etc. have been widely used.
2. Other practices such as Mind Map, Teaching with Humour, Z to A Approach, Role Playing, Scenario Analysis, Model Making, Chart Making, bringing live specimens, Markets Surveys etc. have been employed depending upon the curriculum and its scope.
3. In order to boost the interest of the students in their area of interest, assignments or projects are given to top 10 – 15 students of the class which would help them in making the right career choice and help in seeking admission in future to an institution of repute.
4. Students whose marks are below the minimum pass marks are encouraged to attend remedial classes and are asked to solve University question papers. These papers are then corrected by the subject in charge and the mistakes and solutions are explained to the students on one-on-one basis.
5. Other than these, course specific activities and approaches are adopted to infuse keen interest and enthusiasm in a subject to keep the students abreast with the changing scenario in the industry and to help them perform to the best of their abilities.

II] Practical sessions:

1. Pairing of students: Based on their previous semester practical marks in a similar subject, ranks are assigned to all students in a batch. [In case of a tie in practical marks, the marks obtained in the theory course are considered. In case of the first year students, their marks in HSC are considered]. Then the student assigned rank 1 is paired with that having rank 11, student with rank 2 is paired with that assigned rank 12 and so on. This ensures that a student who is weak in a certain subject is paired with an academically stronger student which helps them in understanding and coping up with practical requirements.
2. Helping academically weaker students: Based on the periodic marks of the students, those securing lower marks are given additional revision turns to help them gain more experience and confidence.

3. Encouraging bright students: Based on their previous semester marks, students showing an aptitude for the subject are encouraged to read/ experiment beyond the scope of the prescribed syllabus to further their interest.
4. Other than these common strategies; course-wise techniques are adopted by the subject teachers to inculcate enthusiasm in their subject. Some of these techniques involve competitions during practicals, real-life problem analysis and solving, making of charts & models etc.

#### **2.2.2. Quality of internal semester question papers, assignments and evaluation (10)**

*(Mention the initiatives, implementation details and impact analysis related to quality assurance of semester question papers, assignments that encourage and empower the students to develop skills and higher orders of learning and evaluation)*

As per the CBSGS curriculum, the percentage of marks for Semester and Internal examination is 70% and 30% respectively. As per the CBCS curriculum, the percentage of marks for Semester and Internal examination is 80% and 20% respectively. University Semester examination papers are set by a panel of examiners appointed by the University. The question papers are sent online by Digital Examination Paper Downloading (DEPD) system to the college on the day of examination. Internal periodic examination papers are set by the subject teacher(s). These papers are reviewed by the respective Head of the Departments and after revision (if any) are submitted in sealed envelope to the examination section. For CBSGS pattern, in addition to the internal periodic examination, college conducts five quizzes for each course corresponding to each of its course outcomes which is a part of the continuous evaluation system. For CBCS pattern, in addition to the internal periodic examination, a class test is conducted. Sometimes students are given assignments in their respective subjects to upgrade their knowledge. These are evaluated by individual faculties with their own perspective.

The assessment and moderation of the answer booklets of the theory courses in Semesters VII and VIII is conducted by the University through Central Assessment Program (CAP) whereas for semesters I to VI it is conducted by the college. The examiners and moderators are appointed by the Principal of the college for each paper, from the panel approved by the Ad-hoc Board of Studies in Pharmacy.

#### **2.2.3. Quality of Students projects (15)**

*(Quality of the project is measured in terms of consideration to factors including, but not limited to, cost, type {application, product, research, review etc.} environment, safety, ethics and standards. Processes related to project identification, allotment, continuous monitoring, evaluation including demonstration of working prototypes, and to enhance the relevance of projects. Mention Implementation details including details of POs addressed through the projects with justification)*

The syllabus does not demand research activity by the undergraduate students throughout the four years course, therefore we have started this beyond the syllabus activity which can inspire them to think analytically, utilize the scientific principles and solve the given problem.

To execute this research activity, all the third year students were given a mini research project under the guidance of respective faculty members. The project was research based. The research work was done in the college in the span of three months. The selection criteria for mini research project was,

1. It should be cost effective
2. Safe and eco-friendly

After the lab work, students submitted a report consisting of the Abstract, Introduction, Rationale, Literature Search, Methodology, Result and Conclusion. The students presented their



work in the form of posters and were evaluated by all the faculty members in the college. As the criteria for evaluation were Project Sustainability, Quality of Research, Presentation and Defence, the quality of these projects was evaluated based on its reflection on various Program Outcomes like PO1, PO2, PO3, PO5 and PO8. From the results, it was observed that maximum students identified and understood the problem given to them. They tried their best to solve the project and apply the available scientific knowledge to interpret the data efficiently. Simultaneously it was observed that some students could present the data well and defend their work in a proper technical manner.

#### **2.2.4. Initiatives related to Industry and/or Hospital interaction**

**(20)**

*(Give details of the industry/ hospital involvement in the Program such as industry-attached laboratories, partial delivery of appropriate courses by industry experts and/or collaborative initiatives with the hospitals etc. Mention the initiatives, implementation details and impact analysis)*

With an aim to provide hands-on training to the pharmacy students on recent technologies using commercially viable machineries, equipments, sophisticated process, validated documents, job training, career opportunities, campus recruitments, innovative idea generation Programs and awards, in the premises of Bharati Vidyapeeth's College of Pharmacy, Bharati Vidyapeeth's Research Centre, Navi Mumbai was formed in collaboration with Abbess Healthcare OPC Pvt. Ltd.

The research centre is equipped with sophisticated equipments and instruments required in the research projects. Students and faculty members of the college have an easy access to the research facilities available in the research centre.

Masters and graduates can take short term projects of 3 to 6 months duration and long term projects of 2years.

Students can avail quality lectures from the highly experienced industry professionals.

They can think upon the recent challenges the corporates are facing and can approach the industry. It keeps them updated on the current industrial trends and creates ample of job opportunities for them.

They also learn how to make their methodologies tangible in real life situations. Stepping beyond a merely theoretical approach, they need to put across the skills with the help of their professors to transfer ideas and strategies into practice.

It is a win-win situation to both the Institute and Industry with such novel ideas in place.

Other than Abbess Healthcare OPC Pvt. Ltd., the college has also established active interactions with other leading Pharma Industries for imparting four-week industrial training to T.Y.B. Pharm students. It also organizes Industrial Visits and facilitates campus placement drives for the Final Year B.Pharm students. The industry-institute interaction also supports research activities by providing gift samples of APIs and in some cases generously donating sophisticated equipments required for the same.

The college also organizes lectures in Hospital Pharmacy coupled with Hospital visits to make the students acquainted with the current trends in this arena. Also lectures on specialized topics are arranged, such as Marrow Donor lecture arranged in collaboration with ACTREC Research Centre. The college has signed Memorandum of Understanding with pharmaceutical industries and hospitals to facilitate activities such as placement drives, health campaigns etc. undertaken by the college.

### **2.2.5. Initiatives related to Skill Development Programs/Industry Internship/Summer Training (10)**

*(Mention the initiatives, implementation details and impact analysis)*

College Training and Placement Cell facilitates arrangements for four weeks in-plant training to be undergone by the T. Y. B. Pharm students. At the beginning of Semester-V, the Cell gives orientation to the students regarding the purpose of In-plant training and procedure to approach industries for the same. The Cell facilitates issue of official appeal letters to the students which need to be submitted to industries.

The Cell further coordinates with industries for the confirmation of accommodation of training. On completion of the training, the students are asked to submit a report of the same and appear for a short individual interactive session with the Training Cell regarding their observations and experiences during the training. Students are evaluated based on the above criteria and top three reports are issued a Certificate of Merit which is handed over to them during the annual gathering function.

Students are benefitted from the practical In-Plant training activity since they have related topics such as Pilot-Plant scale up techniques in their subsequent final year syllabus. The issue of Certificate of Merit additionally motivates the students to strive for active participation in this co-curricular activity.

The students are additionally given training on following equipments for skill development:

#### **1. ROTARY TABLET PRESS MACHINE :**

The students are demonstrated the working of a rotary tablet press machine in the machine room and asked to perform compression of a conventional tablet formula with evaluation of its quality control parameters.

#### **2. HPLC/HPTLC:**

The students are given an understanding of analytical method development using these sophisticated instruments.

#### **3. FTIR:**

Different sampling techniques of FTIR analysis are demonstrated to the students.

#### **4. DIGITAL MICROSCOPE:**

The students are acquainted with the study of herbal drug microscopy using this instrument.

### **2.2.6. Continuous Evaluation Process**

**(10)**

*(Mention the process followed and its effectiveness)*

As per the University of Mumbai, for CBSGS curriculum, 15% weightage is given to continuous evaluation, both in theory and practical.

Of the 15 marks reserved for continuous mode of internal assessment, 5 marks are reserved for attendance, 5 marks for 5 quizzes taken randomly over the semester without prior notice to learners and 5 marks for learner-teacher interaction during lecture hours. Marks for learner-teacher interaction are given based on the learner's drive to ask questions in the class, be ready to be a part of the discussions

raised in the class, actively participating in the class projects and other activities that are a part of the lecture.

In case of practical, of the 15 marks reserved for internal assessment, 7 marks are for continuous mode of evaluation.

As per the University of Mumbai for CBCS curriculum, 5% weightage is given to continuous evaluation, in theory which is mainly related with student's attendance in classes conducted. In case of practical, 10% weightage is given for continuous evaluation. Out of the 10 marks reserved for internal assessment, 2.5 marks are for daily evaluation and 2.5 marks are for attendance.

Along with the above mentioned academic activities which are mandatory as per the University of Mumbai, special efforts are taken for the holistic development of the students. Students interested in a particular subject are given certain assignments by the respective teachers. This helps them to learn the process of gaining extra knowledge by in depth literature search. After completion of the topic, students are asked to deliver seminar on some small subtopic from the syllabus. This helps them to overcome stage fright and also understand the topic in detail. Students with good drawing or computer skills are encouraged to prepare certain display charts. This helps them in a better understanding of the subject.

In order to motivate the students to participate in research, students from the third year are given Mini Research Projects. The student presents the findings of the same in the form of a poster at the college level. Last year, this work has also been presented at various intercollegiate poster competitions. They have won prizes for the same.

Especially for the final year students, pre-placement talks are organized. The lectures conducted include talks in which students are guided for facing the interview, performing in the aptitude tests, writing resume etc. They are also counselled for Post Graduate studies in India and abroad along with information of the courses available.

Students are encouraged to participate in various Inter and Intra-Collegiate sports events. Special sports hours are allotted in the time table wherein students spend some time playing sports. This helps in their overall development.

### **2.2.7 Quality of Experiments**

**(20)**

*(Quality from the equipment set-up and performance perspective)*

The college has a machine room as well as an instrument room having equipments for pilot-plant scale up studies and sophisticated instruments such as HPLC, HPTLC, GC, FTIR, Differential Scanning Calorimeter and UV Spectrophotometer(s), respectively. College laboratories are well equipped with basic requirements as per the syllabus.

1. Mumbai University curriculum specifies the number of experiments in each course along with the type of practicals to be conducted.
2. Students are given demonstration and hands-on experience on equipments some of which are a part of their theory syllabus. Thus, students can correlate theoretical concepts with practical knowledge, enabling them to have a better understanding of the subject.
3. The practicals of the overall Program taken together from Sem I to Sem VIII involve skills addressing various Bloom Levels depending on the respective course and year of study (e.g. tabulation of

readings, calculations, plotting graphs, interpretation of results and comment on the results, wherever applicable).

4. Safe handling of chemicals, instruments and equipments is taught, wherever applicable.
5. After conduction of every practical, results obtained are discussed.
6. Students are oriented to refer Standard Operating Procedures (SOPs) before using any instrument or equipment especially for those which are sophisticated.
7. Safety precautions while operating equipments are explained.
8. Trouble shooting and maintenance is taught and demonstrated.
9. Students are also explained the importance of documentation.

<b>Criterion 3</b>	<b>Course Outcomes (COs) and Program Outcomes (POs)</b>	<b>100</b>
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**3. Course Outcomes (COs) and Program Outcomes (POs) (100)**

**3.1. Establish the correlation between the courses and the Program Outcomes (20)**  
(NBA defined Program Outcomes as mentioned in Annexure I)

**3.1.1. Course Outcomes (SAR should include course outcomes of one course from each semester of study, however, should be prepared for all courses) (05)**

*Note: Number of Outcomes for a Course is expected to be around 6.*

*Course Name: Ciii Year of Study: YYYY – YY; For ex. C202 Year of study 2013-14*

<b>C102.1</b>	<b>Describe different states of matter and explain their properties along with their advantages.</b>
<b>C102.2</b>	Define and explain various physical properties of drug molecules.
<b>C102.3</b>	Understand and describe the colligative properties of solutions of non-electrolytes.
<b>C102.4</b>	Memorise and recall the laws of thermodynamics and derivations therein.
<b>C102.5</b>	Describe and predict the properties of solutions of electrolytes.

**C102** is in the first semester, **102** is the subject code for **Physical Pharmacy I** and **C102.1** to **C102.5** are the outcomes of this course.

<b>C205.1</b>	<b>Describe principles of cell injury and adaptation, disturbances of growth of cells and biological effects of radiation.</b>
<b>C205.2</b>	Explain anatomy and physiology of respiratory system and pathophysiology of related diseases.
<b>C205.3</b>	Describe the anatomy and physiology of the endocrine glands and pathophysiology of of hypo and hyper secretion of above endocrine glands and related diseases.
<b>C205.4</b>	Discuss the anatomy and physiology of the nervous system and pathophysiology of diseases affecting the nervous system.
<b>C205.5</b>	Explain the structure and function the five sense organs.

**C205** is in the second semester, **205** is the subject code for **Anatomy, Physiology and Pathophysiology II** and **C205.1** to **C205.5** are the outcomes of this course.

<b>C303.1</b>	<b>Translate Latin terms to English, use metric conversions and identify incompatibilities</b>
<b>C303.2</b>	Summarize the basics of compounding and dispensing of traditional liquid dosage forms.
<b>C303.3</b>	Summarize the basics of compounding and dispensing of traditional semisolid and solid dosage forms.
<b>C303.4</b>	Recognise and interpret various parts of prescription
<b>C303.5</b>	Compute concentration, isotonicity, HLB and dose requirements

**C303** is in the third semester, **303** is the subject code for **Dispensing Pharmacy** and **C303.1** to **C303.5** are the outcomes of this course.

<b>C404.1</b>	<b>Explain anatomy and cytology of microbes.</b>
<b>C404.2</b>	Apply staining cultural, nutritional and physiological characteristics for microbial classification.
<b>C404.3</b>	Describe the use of preventive and control measures for diseases.
<b>C404.4</b>	Explain the use of physical and chemical agents for control of microbial life.
<b>C404.5</b>	Identify the causative agents of disease.

**C404** is in the fourth semester, **404** is the subject code for **Microbiology** and **C404.1** to **C404.5** are the outcomes of this course.

<b>C505.1</b>	<b>Summarize different components of Health Industry.</b>
<b>C505.2</b>	Explain equity in Market & Business results.
<b>C505.3</b>	Explain SWOT analysis for market branding and selection of market segmentation of product and understanding of PLC (Product Life Cycle).
<b>C505.4</b>	Classify and write market strategy regarding 4P's of Marketing Mix, OTC & various models like BCG matrix, Porter's 5 force model.
<b>C505.5</b>	Summarize pharmaceutical quality of product & legal regulatory bodies with complete development of soft skills.

**C505** is in the fifth semester, **505** is the subject code for **Pharmaceutical Management** and **C505.1** to **C505.5** are the outcomes of this course.

<b>C605.1</b>	<b>Interpret functions of hospital and hospital pharmacy, pharmacy and therapeutic committee.</b>
<b>C605.2</b>	Explain purchasing procedure, drug distribution system in hospitals and role of central sterile services.
<b>C605.3</b>	Apply ethics of Pharmacy profession, safe use of medication and health accessories.
<b>C605.4</b>	Explain channels of distribution and forms of business organization.
<b>C605.5</b>	Explain inventory control, risk and fraud management in retail practice.

**C605** is in the sixth semester, **605** is the subject code for **Hospital Pharmacy and Drug Store Management** and **C605.1** to **C605.5** are the outcomes of this course.

<b>C705.1</b>	<b>Write classification, sources, chemistry, extraction, evaluation and applications of drugs containing lipids.</b>
<b>C705.2</b>	Write classification, sources, chemistry, extraction, detection and applications of drugs containing glycosides and tannins.
<b>C705.3</b>	Explain classification, sources, extraction, detection and biopotential of drugs containing alkaloids.
<b>C705.4</b>	Summarize drugs containing polyacetylenes, sulphur containing compounds, benzoquinones, naphthoquinones and pesticides with respect to sources, chemistry and uses.
<b>C705.5</b>	Elaborate on neutraceuticals with respect to sources, chemistry and uses.

**C705** is in the seventh semester, **705** is the subject code for **Pharmacognosy and Phytochemistry II** and **C705.1** to **C705.5** are the outcomes of this course.

<b>C801.1</b>	<b>Summarize and explain various CNS drugs with respect to structure, IUPAC nomenclature, SAR, mode of action, metabolism, synthesis and rational development.</b>
<b>C801.2</b>	Write and summarize ANS drugs with respect to structure, IUPAC nomenclature, SAR, mode of action, metabolism, synthesis and rational development.
<b>C801.3</b>	Explain and write structure, IUPAC nomenclature, SAR, mode of action, metabolism and synthesis of analgesic drugs.
<b>C801.4</b>	Summarize and discuss on structure, IUPAC nomenclature, SAR, mode of action, metabolism and synthesis of the drugs affecting male and female health (steroid).
<b>C801.5</b>	Summarize and explain various drugs affecting hormonal system with respect to structure, IUPAC nomenclature, SAR, mode of action, metabolism, synthesis and rational development.

**C801** is in the eighth semester, **801** is the subject code for **Pharmaceutical and Medicinal Chemistry IV** and **C801.1** to **C801.5** are the outcomes of this course.

**Table 3.1.1**



**3.1.2. CO-PO matrices of courses selected in 3.1.1 (four matrices to be mentioned; one per semester from 1<sup>st</sup> to 8<sup>th</sup> semester; atleast one per year) (05)**

Physical Pharmacy I (C102)	CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
	C102.1	H	-	L	L	-	L	-	L	-	-	L
	C102.2	H	M	M	L	-	L	-	-	-	-	H
	C102.3	H	M	M	M	-	-	-	L	-	-	L
	C102.4	H	-	L	-	-	-	-	-	-	-	L
	C102.5	H	M	L	L	-	-	-	-	-	-	L
	<b>C102</b>	<b>H</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>-</b>	<b>L</b>	<b>-</b>	<b>L</b>	<b>-</b>	<b>-</b>	<b>M</b>

Anatomy, Physiology and Pathophysiology II (C205)	CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
	C205.1	H	-	-	-	-	M	-	H	M	M	M
	C205.2	H	-	-	-	-	M	-	H	M	-	M
	C205.3	H	-	-	-	-	M	-	H	M	-	M
	C205.4	H	-	-	-	-	M	-	H	M	-	M
	C205.5	H	-	-	-	-	M	-	H	M	-	M
	<b>C205</b>	<b>H</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>M</b>	<b>-</b>	<b>H</b>	<b>M</b>	<b>M</b>	<b>M</b>

Dispensing Pharmacy (C303)	CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
	C303.1	H	-	M	L	-	H	H	M	L	-	L
	C303.2	H	M	M	L	L	H	H	M	H	-	-
	C303.3	H	M	M	L	L	H	H	H	M	H	-
	C303.4	M	M	L	L	M	H	H	H	H	-	M
	C303.5	L	-	H	-	-	M	-	-	-	-	H
	<b>C303</b>	<b>H</b>	<b>M</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>H</b>	<b>H</b>	<b>H</b>	<b>H</b>	<b>H</b>	<b>M</b>

Microbiology (C404)	CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
	C404.1	M	-	-	M	-	H	-	-	M	H	M
	C404.2	M	M	M	M	-	-	-	-	-	M	M
	C404.3	H	M	H	M	-	H	-	-	-	H	-
	C404.4	H	M	H	M	-	M	-	-	-	M	-
	C404.5	-	-	H	H	-	M	-	-	M	H	M
	<b>C404</b>	<b>H</b>	<b>M</b>	<b>H</b>	<b>H</b>	<b>-</b>	<b>H</b>	<b>-</b>	<b>-</b>	<b>M</b>	<b>H</b>	<b>M</b>

Pharmaceutical Management (C505)	CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
	<b>C505.1</b>	M	-	H	H	M	H	M	M	L	L	M
	<b>C505.2</b>	-	M	L	H	H	H	L	M	L	-	-
	<b>C505.3</b>	-	M	H	M	-	L	H	M	M	-	L
	<b>C505.4</b>	-	H	H	-	M	-	M	L	H	-	M
	<b>C505.5</b>	H	-	M	H	-	L	M	H	M	L	M
	<b>C505</b>	<b>H</b>	<b>H</b>	<b>H</b>	<b>H</b>	<b>H</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>L</b>	<b>M</b>

Hospital Pharmacy and Drug Store Management (C605)	CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
	C605.1	H	-	-	-	H	H	-	-	H	M	H
	C605.2	-	H	-	H	M	M	H	M	-	-	M
	C605.3	H	-	-	M	-	-	H	H	M	M	H
	C605.4	-	H	-	-	H	H	-	H	-	-	M
	C605.5	-	M	-	M	M	-	-	M	M	-	H
	<b>C605</b>	<b>H</b>	<b>H</b>	<b>-</b>	<b>H</b>	<b>H</b>	<b>H</b>	<b>H</b>	<b>H</b>	<b>H</b>	<b>M</b>	<b>H</b>

Pharmacognosy and Phytochemistry II (C705)	CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
	C705.1	H	M	M	M	-	M	-	-	L	-	M
	C705.2	H	M	M	M	-	M	-	-	L	-	M
	C705.3	H	M	M	M	-	M	-	-	L	-	M
	C705.4	H	M	-	-	-	M	-	-	M	M	M
	C705.5	H	M	-	-	-	M	-	-	M	M	H
	<b>C705</b>	<b>H</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>-</b>	<b>M</b>	<b>-</b>	<b>-</b>	<b>M</b>	<b>M</b>	<b>H</b>

Pharmaceutical and Medicinal Chemistry IV (C801)	CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
	C801.1	H	-	M	-	-	L	L	L	L	-	M
	C801.2	H	-	M	-	-	L	L	L	L	-	M
	C801.3	H	-	M	-	-	L	L	L	L	-	M
	C801.4	H	-	M	-	-	L	L	L	L	-	M
	C801.5	H	-	M	-	-	L	L	L	L	-	M
	<b>C801</b>	<b>H</b>	<b>-</b>	<b>M</b>	<b>-</b>	<b>-</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>-</b>	<b>M</b>

**Table 3.1.2**

**Note:** Correlation levels 1, 2 or 3 as defined below:

1: Slight (Low)

2: Moderate (Medium)

3: Substantial (High)

It there is no correlation, put '-'

**3.1.3 Course-PO matrix of courses for all four years of study**

**(10)**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C101	H	-	M	-	-	L	-	L	-	-	M
C102	H	M	M	M	-	L	-	L	-	-	M
C103	H	-	-	-	-	M	-	H	H	-	M
C104	M	-	M	M	-	M	M	-	M	H	H
C105	H	H	-	H	L	-	H	H	-	H	-
C106	H	H	H	L	M	-	L	H	-	-	H
C107	H	-	H	M	-	M	-	-	M	M	H
C108	-	L	M	H	-	-	-	H	-	M	H
C201	H	-	-	-	-	H	L	L	H	-	L
C202	H	M	H	H	-	H	M	-	H	H	H
C203	H	-	M	-	-	M	M	-	M	-	M
C204	H	H	M	L	-	M	-	L	-	-	H
C205	H	-	-	-	-	M	-	H	M	M	M
C206	H	H	H	-	-	M	-	M	H	-	L
C207	H	L	-	-	-	L	H	M	-	-	L
C208	M	H	H	-	M	-	-	-	L	M	M
C301	H	L	L	-	-	L	-	M	L	-	M
C302	H	-	-	M	-	M	-	L	M	-	M
C303	H	M	M	L	M	H	H	H	H	H	M
C304	H	-	M	-	L	H	H	H	H	H	H
C305	H	-	-	-	-	M	-	M	M	-	M
C306	H	M	H	H	-	M	-	-	-	-	L
C307	H	H	H	-	-	L	-	M	-	-	L
C308	H	M	H	M	-	M	-	-	M	-	M
C309	H	H	M	-	-	H	M	M	M	-	-
C401	H	L	L	-	-	L	L	L	-	-	H
C402	H	H	H	L	M	M	M	L	L	L	M
C403	H	H	M	H	H	H	M	M	M	M	M
C404	H	M	H	H	-	H	-	-	M	H	M
C405	H	-	-	-	-	M	-	M	M	-	M
C406	H	H	M	H	-	H	-	-	-	-	M
C407	H	H	H	L	-	M	-	L	-	-	L
C408	H	M	-	M	M	H	-	-	-	-	M
C409	H	-	H	-	M	-	-	-	M	-	H
C410	H	M	H	H	-	-	M	-	M	M	-
C501	H	M	M	-	-	L	M	M	L	M	M
C502	H	H	M	M	-	-	L	L	M	M	M
C503	H	H	H	H	-	M	M	-	M	H	H
C504	H	-	H	-	-	H	-	H	H	-	H
C505	H	H	H	H	H	M	M	M	M	L	M
C506	H	-	H	-	-	L	-	M	-	-	L
C507	-	M	H	H	-	-	-	-	H	H	-

C508	-	M	H	-	-	H	M	L	M	-	M
C601	H	-	-	-	-	H	-	M	M	-	M
C602	H	-	M	H	M	M	-	-	L	L	M
C603	H	H	H	M	M	M	H	L	L	L	L
C604	H	M	M	M	-	M	M	-	M	M	M
C605	H	H	-	H	H	H	H	H	H	M	H
C606	H	M	L	-	-	H	-	-	L	H	-
C607	H	M	H	H	-	M	H	-	H	-	M
C608	H	H	H	L	H	H	H	L	-	-	M
C609	H	-	M	M	-	M	-	-	-	M	H
C701	H	-	M	-	-	L	L	L	L	-	M
C702	H	-	H	H	-	H	-	-	-	-	L
C703	H	-	-	-	-	M	-	M	M	-	-
C704	H	H	M	M	M	L	M	M	M	H	M
C705	H	M	M	M	-	M	-	-	M	M	H
C706	H	H	-	M	H	M	H	M	H	-	H
C707	H	H	H	H	-	M	-	-	L	-	L
C708	H	H	H	L	H	L	L	H	L	L	L
C709	H	H	H	-	-	M	-	L	M	-	H
C710	H	M	M	M	-	-	-	L	L	-	H
C801	H	-	M	-	-	L	L	L	L	-	M
C802	H	M	M	M	H	L	M	M	M	M	M
C803	H	H	M	H	-	H	M	L	L	-	M
C804	H	L	M	M	-	M	H	H	M	M	H
C805	H	M	H	-	L	H	-	H	H	-	H
C806	M	M	L	-	-	M	-	-	M	M	L
C807	H	H	H	M	M	H	L	L	L	L	L
C808	H	H	H	M	-	-	M	M	M	M	M

**Table 3.1.3\***

*Note: Correlation levels 1, 2 or 3, as defined below:*

1: Slight (Low)

2: Moderate (Medium)

3: Substantial (High)

*If there is no correlation, put '-'*

*\*It may be noted that contents of Table 3.1.2 must be consistent with information available in Table 3.1.3 for all the courses.*

## **3.2. Attainment of Course Outcomes**

**(40)**

### **3.2.1. Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based**

**(10)**

*(Examples of data collection processes may include, but are not limited to, specific exam/tutorial questions, assignments, laboratory tests, project evaluation, student portfolios (A portfolio is a collection of artifacts that demonstrate skills, personal characteristics, and accomplishments created by the student during study period), internally developed assessment exams, project presentations, oral exams, focus groups etc. It is expected that each theory subject taught should impart specific knowledge and make a foundation for a set of Basic Concepts related to it. Similarly the laboratory experiments should have some predetermined and predefined skills which can be developed during the study)*

- 1) Assessment process is divided into two parts
  - a. Internal Assessment
  - b. University Exam Assessment
- Thirty percent weightage is given for Internal Assessment and seventy percent weightage is given for University Assessment. This is in accordance with the weightage given in University curriculum.
- **Internal Assessment** : The course outcomes are assessed by the performance of students in the internal exams. The internal exams are divided into five quizzes and one periodic test. The five quizzes are planned in such a way that they cover all the course outcomes. This comprises of 30% of direct assessment.
- **Semester End Examination**: It is an important tool for assessment of course outcomes. This examination consists of descriptive type questions and is conducted by the University.
  1. As the University does not provide average or median marks, we have set University pass percentage (40%) as the target level for theory courses and 50% marks as the target level for practical courses.
  2. If 50% of students have obtained marks above target then the level is considered as low level 1.
  3. If 60% of students have obtained marks above target then the level is considered as medium level 2.
  4. If 70% of students have obtained marks above target then the level is considered as high level 3.

### 3.2.2 Record the attainment of Course Outcomes of all courses with respect to set attainment levels (30)

*Program shall have set Course Outcome attainment levels for all courses.*

*(The attainment levels shall be set considering average performance levels in the University examination or any higher value set as target for the assessment years. Attainment level is to be measured in terms of student performance in internal assessments with respect the course outcomes of a course in addition to the performance in the University examination)*

#### **Measuring Course Outcomes attained through University Examinations**

*Target may be stated in terms of percentage of students getting more than the University average marks or more as selected by the Program in the final examination. For cases where the University does not provide useful indicators like average or median marks etc., the Program may choose an attainment level on its own with justification.*

**Example related to attainment levels Vs. targets:** *(The examples indicated are for reference only. Program may appropriately define levels)*

*Attainment Level 1: 60% students scoring more than University average percentage marks or set attainment level in the final examination is considered to be attainment of "1"*

*Attainment Level 2: 70% students scoring more than University average percentage marks or set attainment level in the final examination is considered to be attainment of "2"*

*Attainment Level 3: 80% students scoring more than University average percentage marks or set attainment level in the final examination is considered to be attainment of "3"*

- *Attainment is measured in terms of actual percentage of students getting set percentage of marks.*
- *If targets are achieved then all the course outcomes are attained for that year. Program is expected to set higher targets for the following years as a part of continuous improvement.*
- *If targets are not achieved the Program should put in place an action plan to attain the target in subsequent years.*

**Measuring CO attainment through Internal Assessments:** (The examples indicated are for reference only. Program may appropriately define levels)

Target may be stated in terms of percentage of students getting more than class average marks or set by the Program in each of the associated COs in the assessment instruments (midterm tests, assignments, mini projects, reports and presentations etc. as mapped with the COs)

**Example**

Mid-term test 1 addresses C202.1 and C202.2. Out of the maximum 20 marks for this test 12 marks are associated with C202.1 and 8 marks are associated with C202.2.

Examples related to attainment levels Vs. targets:

Attainment Level 1: **60% students scoring more than 60% marks out of the relevant maximum marks is considered to be attainment of "1"**

Attainment Level 2: **70% students scoring more than 60% marks out of the relevant maximum marks is considered to be attainment of "2"**

Attainment Level 3: **80% students scoring more than 60% marks out of the relevant maximum marks is considered to be attainment of "3"**

- Attainment is measured in terms of actual percentage of students getting set percentage of marks.
- If targets are achieved then the C202.1 and C202.2 are attained for that year. Program is expected to set higher targets for the following years as a part of continuous improvement.
- If targets are not achieved the Program should put in place an action plan to attain the target in subsequent years.

Similar targets and achievement are to be stated for the other mid term tests/internal assessment instruments

**Course Outcome Attainment:**

For example:

Attainment through University Examination: Substantial i.e. 3

Attainment through Internal Assessment: Moderate i.e. 2

Assuming 80% weightage to University examination and 20% weightage to Internal assessment, the attainment calculations will be (80% of University level) + (20% of Internal level ) i.e. 80% of 3 + 20% of 2 = 2.4 + 0.4 = 2.8

**Note:** Weightage of 80% to University exams is only an example. Programs may decide weightages appropriately for University exams and internal assessment with due justification.

As per the curriculum prescribed by University of Mumbai weightages of end semester exam marks and internal exam marks were considered and it was decided to calculate the CO attainments as 70% weightage to the University Term End Examination and 30% weightage to the Internal Examination. (For Curriculum Refer Annexure - II)

$$70\% \text{ of } 3 + 30\% \text{ of } 3 = 2.1 + 0.9 = 3$$

**Table 3.2  
CO attainment for Batch 2013-17**

Course	Code	Exam	Target	CO1	CO2	CO3	CO4	CO5	Average	Attainment Level
<b>Physical Organic Chemistry</b>	C101	Internal	40	0.6	0.9	0.6	0.9	0.9	0.78	2.88
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Physical Pharmacy I</b>	C102	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Anatomy, Physiology and Pathophysiology I</b>	C103	Internal	40	0.9	0.9	0.9	0.3	0.9	0.78	2.18
		University	40	1.4	1.4	1.4	1.4	1.4	1.4	
<b>Environmental Sciences</b>	C104	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Communication Skills</b>	C105	Internal	40	0.75	0.9	0.9	0.9	0.9	0.87	2.97
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Physical Pharmacy Lab I</b>	C106	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Anatomy, Physiology And Pathophysiology Lab</b>	C107	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Computer Lab</b>	C108	Internal	50	0.9					0.9	2.3
		University	50	1.4					1.4	
<b>Pharmaceutical Chemistry I</b>	C201	Internal	40	0.6	0.9	0.9	0.9	0.9	0.84	2.94
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Biochemistry I</b>	C202	Internal	40	0.6	0.75	0.9	0.9	0.9	0.81	2.91
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutics I</b>	C203	Internal	40	0.75	0.9	0.6	0.9	0	0.63	2.73
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Physical Pharmacy II</b>	C204	Internal	40	0.9	0.75	0.75	0.75	0.9	0.81	1.51
		University	40	0.7	0.7	0.7	0.7	0.7	0.7	
<b>Anatomy, Physiology And Pathophysiology II</b>	C205	Internal	40	0.75	0.81	0.6	0	0.3	0.492	2.59
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutical Chemistry Lab I</b>	C206	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Pharmaceutics Lab I</b>	C207	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Physical Pharmacy Lab II</b>	C208	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	



<b>Organic Chemistry I</b>	C301	Internal	40	0.3	0.9	0.3	0.6	0.9	0.6	1.3
		University	40	0.7	0.7	0.7	0.7	0.7	0.7	
<b>Biochemistry II</b>	C302	Internal	40	0.6	0.45	0	0.6	0.3	0.39	2.49
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Dispensing Pharmacy</b>	C303	Internal	40	0.45	0	0	0.8	0.8	0.41	2.51
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutical Engineering</b>	C304	Internal	40	0.8	0.9	0.9	0	0.9	0.7	2.1
		University	40	1.4	1.4	1.4	1.4	1.4	1.4	
<b>Anatomy, Physiology and Pathophysiology III</b>	C305	Internal	40	0.8	0.9	0.9	0.9	0.6	0.82	2.22
		University	40	1.4	1.4	1.4	1.4	1.4	1.4	
<b>Mathematics</b>	C306	Internal	40	0.8	0.9	0.9	0.9	0.9	0.88	2.98
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Organic Chemistry Lab I</b>	C307	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Biochemistry Lab</b>	C308	Internal	50	0.9					0.9	2.3
		University	50	1.4					1.4	
<b>Dispensing Pharmacy Lab</b>	C309	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Organic Chemistry II</b>	C401	Internal	40	0.6	0.8	0.8	0.9	0.9	0.8	1.5
		University	40	0.7	0.7	0.7	0.7	0.7	0.7	
<b>Pharmaceutical Analysis I</b>	C402	Internal	40	0.9	0.9	0.6	0.6	0.6	0.72	2.82
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutics II</b>	C403	Internal	40	0.8	0.8	0.8	0.8	0.9	0.82	2.92
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Microbiology</b>	C404	Internal	40	0.6	0.9	0.3	0.9	0	0.54	2.64
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmacology I</b>	C405	Internal	40	0.3	0.3	0.3	0.9	0.9	0.54	2.64
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Mathematics and Statistics</b>	C406	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutical Analysis Lab I</b>	C407	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Pharmaceutics Lab II</b>	C408	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Pharmacology Lab I</b>	C409	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Microbiology Lab</b>	C410	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Organic Chemistry III</b>	C501	Internal	40	0.6	0.8	0.3	0.6	0.6	0.58	2.68
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	

<b>Cosmeticology</b>	C502	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutical Biotechnology</b>	C503	Internal	40	0.9	0.9	0.9	0.8	0.9	0.88	2.98
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmacology II</b>	C504	Internal	40	0.6	0.45	0.9	0.8	0.45	0.64	2.04
		University	40	1.4	1.4	1.4	1.4	1.4	1.4	
<b>Pharmaceutical Management</b>	C505	Internal	40	0.6	0.3	0.6	0.8	0.6	0.58	2.68
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Organic Chemistry Lab II</b>	C506	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Cosmeticology Lab</b>	C507	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Pharmaceutical Biotechnology Lab</b>	C508	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Pharmaceutical Chemistry II</b>	C601	Internal	40	0.9	0.45	0.8	0.3	0	0.49	2.59
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutical Analysis II</b>	C602	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutics III</b>	C603	Internal	40	0.45	0.9	0.6	0.45	0	0.48	2.58
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmacognosy and Phytochemistry I</b>	C604	Internal	40	0.3	0	0.69	0.6	0.9	0.498	2.6
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Hospital Pharmacy and Drug Store Management</b>	C605	Internal	40	0.9	0.9	0.9	0.9	0	0.72	2.82
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutical Chemistry Lab II</b>	C606	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Pharmaceutical Analysis Lab II</b>	C607	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Pharmaceutics Lab III</b>	C608	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Pharmacognosy and Phytochemistry Lab I</b>	C609	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Pharmaceutical Chemistry III</b>	C701	Internal	40	0.9	0.9	0.6	0.9	0.9	0.84	2.94
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutical Analysis III</b>	C702	Internal	40	0.9	0.8	0.9	0.8	0.9	0.86	2.96
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmacology III</b>	C703	Internal	40	0.9	0.9	0.45	0.9	0.6	0.75	2.85

		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutics IV</b>	C704	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmacognosy and Phytochemistry II</b>	C705	Internal	40	0.9	0	0.6	0.9	0.6	0.6	2.7
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutical Jurisprudence</b>	C706	Internal	40	0.9	0.9	0	0	0.6	0.48	2.58
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutical Analysis Lab III</b>	C707	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Pharmaceutics Lab IV</b>	C708	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Pharmacology Lab II</b>	C709	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Pharmacognosy and Phytochemistry Lab II</b>	C710	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Pharmaceutical Chemistry IV</b>	C801	Internal	40	0.6	0.9	0.9	0.9	0.6	0.78	2.88
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutics V</b>	C802	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Biopharmaceutics and Pharmacokinetics</b>	C803	Internal	40	0.8	0.9	0.9	0.9	0	0.7	2.8
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmacognosy and Phytochemistry III</b>	C804	Internal	40	0.9	0.9	0.9	0.8	0.6	0.82	2.92
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Clinical Pharmacy</b>	C805	Internal	40	0.9	0.9	0.9			0.9	3
		University	40	2.1	2.1	2.1			2.1	
<b>Pharmaceutical Chemistry Lab III</b>	C806	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Pharmaceutics Lab V</b>	C807	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	
<b>Pharmacognosy and Phytochemistry lab III</b>	C808	Internal	50	0.9					0.9	3
		University	50	2.1					2.1	

**CO attainment for Batch 2012-16**

Course	Code	Exam	Target	CO1	CO2	CO3	CO4	CO5	Average	Attainment Level
Physical Organic Chemistry	C101	Internal	40	0.75	0.9	0.75	0	0.9	0.66	2.06
		University	40	1.4	1.4	1.4	1.4	1.4	1.4	
Physical Pharmacy I	C102	Internal	40	0.9	0.9	0.6	0.9	0.9	0.84	2.94
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
Anatomy, Physiology and Pathophysiology I	C103	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	2.3
		University	40	1.4	1.4	1.4	1.4	1.4	1.4	
Environmental Sciences	C104	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
Communication Skills	C105	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	2.3
		University	40	1.4	1.4	1.4	1.4	1.4	1.4	
Physical Pharmacy Lab I	C106	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
Anatomy, Physiology And Pathophysiology Lab	C107	Internal	50	0	-	-	-	-	0	1.4
		University	50	1.4	-	-	-	-	1.4	
Computer Lab	C108	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
Pharmaceutical Chemistry I	C201	Internal	40	0.9	0.9	0.9	0.6	0.9	0.84	2.94
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
Biochemistry I	C202	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
Pharmaceutics I	C203	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
Physical Pharmacy II	C204	Internal	40	0.9	0.9	0.75	0.75	0.75	0.81	2.91
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
Anatomy, Physiology And Pathophysiology II	C205	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
Pharmaceutical Chemistry Lab I	C206	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
Pharmaceutics Lab I	C207	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
Physical Pharmacy Lab II	C208	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
Organic Chemistry I	C301	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	1.6
		University	40	0.7	0.7	0.7	0.7	0.7	0.7	
Biochemistry II	C302	Internal	40	0	0	0	0	0	0	1.4

		University	40	1.4	1.4	1.4	1.4	1.4	1.4	
<b>Dispensing Pharmacy</b>	C303	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutical Engineering</b>	C304	Internal	40	0.75	0.75	0.9	0.9	0.9	0.84	2.94
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Anatomy, Physiology and Pathophysiology III</b>	C305	Internal	40	0.9	0.9	0.6	0.9	0.3	0.72	2.82
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Mathematics</b>	C306	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Organic Chemistry Lab I</b>	C307	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Biochemistry Lab</b>	C308	Internal	50	0.9	-	-	-	-	0.9	2.3
		University	50	1.4	-	-	-	-	1.4	
<b>Dispensing Pharmacy Lab</b>	C309	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Organic Chemistry II</b>	C401	Internal	40	0.3	0.3	4.5	0.6	0.3	1.2	1.9
		University	40	0.7	0.7	0.7	0.7	0.7	0.7	
<b>Pharmaceutical Analysis I</b>	C402	Internal	40	0.9	0.80	0.75	0.6	0.9	0.79	2.89
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutics II</b>	C403	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Microbiology</b>	C404	Internal	40	0.9	0.9	0.9	0.45	0.3	0.69	2.79
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmacology I</b>	C405	Internal	40	0.75	0.75	0.75	0	0.9	0.63	2.73
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Mathematics and Statistics</b>	C406	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutical Analysis Lab I</b>	C407	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Pharmaceutics Lab II</b>	C408	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Pharmacology Lab I</b>	C409	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Microbiology Lab</b>	C410	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Organic Chemistry III</b>	C501	Internal	40	0.6	0.6	0.3	0.9	0.9	0.66	2.76
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Cosmeticology</b>	C502	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutical</b>	C503	Internal	40	0.9	0.9	0.9	0.9	0.6	0.84	2.94

<b>Biotechnology</b>		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmacology II</b>	C504	Internal	40	0.3	0.6	0.9	0.3	0.9	0.6	1.3
		University	40	0.7	0.7	0.7	0.7	0.7	0.7	
<b>Pharmaceutical Management</b>	C505	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Organic Chemistry Lab II</b>	C506	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Cosmeticology Lab</b>	C507	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Pharmaceutical Biotechnology Lab</b>	C508	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Pharmaceutical Chemistry II</b>	C601	Internal	40	0.9	0.9	0.6	0.9	0.9	0.84	2.94
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutical Analysis II</b>	C602	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutics III</b>	C603	Internal	40	0.9	0.9	0.6	0.9	0	0.66	2.76
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmacognosy and Phytochemistry I</b>	C604	Internal	40	0.9	0.9	0.9	0	0.9	0.72	2.82
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Hospital Pharmacy and Drug Store Management</b>	C605	Internal	40	0.9	0.9	0.75	0.9	0.9	0.87	2.97
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutical Chemistry Lab II</b>	C606	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Pharmaceutical Analysis Lab II</b>	C607	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Pharmaceutics Lab III</b>	C608	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Pharmacognosy and Phytochemistry Lab I</b>	C609	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Pharmaceutical Chemistry III</b>	C701	Internal	40	0.3	0.9	0.9	0.9	0.9	0.78	2.18
		University	40	1.4	1.4	1.4	1.4	1.4	1.4	
<b>Pharmaceutical Analysis III</b>	C702	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmacology III</b>	C703	Internal	40	0.6	0.75	0.9	0	0.9	0.63	2.73
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutics IV</b>	C704	Internal	40	0.6	0.9	0.9	0.9	0.9	0.84	2.94
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	

<b>Pharmacognosy and Phytochemistry II</b>	C705	Internal	40	0.9	0.75	0.9	0.9	0.6	0.81	2.91
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutical Jurisprudence</b>	C706	Internal	40	0.9	0.9	0.9	0	0.6	0.66	2.76
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutical Analysis Lab III</b>	C707	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Pharmaceutics Lab IV</b>	C708	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Pharmacology Lab II</b>	C709	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Pharmacognosy and Phytochemistry Lab II</b>	C710	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Pharmaceutical Chemistry IV</b>	C801	Internal	40	0.9	0.9	0.6	0.9	0.9	0.84	2.94
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmaceutics V</b>	C802	Internal	40	0.9	0.9	0.9	0.3	0.9	0.78	2.88
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Biopharmaceutics and Pharmacokinetics</b>	C803	Internal	40	0.6	0.9	0.9	0.9	0.9	0.84	2.94
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Pharmacognosy and Phytochemistry III</b>	C804	Internal	40	0.9	0.9	0.9	0.9	0.9	0.9	3
		University	40	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Clinical Pharmacy</b>	C805	Internal	40	0.9	0.9	0.9	-	-	0.54	1.8
		University	40	2.1	2.1	2.1	-	-	1.26	
<b>Pharmaceutical Chemistry Lab III</b>	C806	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Pharmaceutics Lab V</b>	C807	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	
<b>Pharmacognosy and Phytochemistry lab III</b>	C808	Internal	50	0.9	-	-	-	-	0.9	3
		University	50	2.1	-	-	-	-	2.1	



## Attainment of Program Outcomes

(40)

### 3.3.1. Describe assessment tools and processes used for assessing the attainment of each PO (10)

*(Describe the assessment tools and processes used to gather the data upon which the evaluation of each the Program Outcome is based indicating the frequency with which these processes are carried out. Describe the assessment processes that demonstrate the degree to which the Program Outcomes are attained and document the attainment levels)*

#### Direct Attainment Tools

The various direct assessment tools for assessing the students and the PO attained are as follows:

Assessing Tool	Aim	Frequency	Program Outcome
Quiz	Assessing the understanding of fundamental concepts and expression of the knowledge gained	Five per semester per Course at the Institute level.	All POs
Periodic test	Assessing the understanding of the fundamental concepts and expression of the knowledge gained	One per semester per Course at the Institute level.	All POs
Term Examination	Assessing the understanding of the fundamental concepts and expression of the practical skills and knowledge gained.	One at the end of the semester at the University level.	All POs

#### Indirect Attainment Tools

The various indirect assessment tools for assessing the students and the PO attained are as follows:

Assessing Tool	Aim	Frequency	Program Outcome
Program Exit Survey	To assess the contribution of the Program in the overall development of the graduates	After graduation of students	All POs
Professional Society Activity	To assess the inculcation of professional identity, ethics and a sense of responsibility towards the society by large.	After the conduction of health campaigns	PO6, PO7, PO9 and PO11
Student Projects	To assess the application of pharmacy knowledge gathered to analyse a problem and make a plan to solve the same. It also helps in assessing the development in leadership and communication skills	At the end of T. Y. B. Pharm	PO1, PO2, PO3, PO5 and PO8
Co-curricular Activities	It assesses the relevance of these activities in using pharmacy knowledge in promoting problem analysis, planning abilities and a life-long interest in the area. It also helps in	After every co-curricular activity	PO2, PO3, PO4, PO5, PO8 and PO11



	assessing the improvement in operating modern computer tools and software as well as their leadership and communication skills		
Extra-Curricular Activities	To assess the overall development in the personality of the students	After every extra-curricular activity	PO2, PO5, PO8 and PO9
Guest Lectures	To assess the impact of the lecture in relation to knowledge, problem solving ability, communication skills and pharmacy practice.	After every guest lecture	PO1, PO3, PO6, PO8 and PO9
In-Plant Training	To assess the observation skills and ability to relate class room studies to the industrial scenario.	Once during the Program	PO1, PO4, PO6, PO7, PO8, PO9 and PO10
Industrial Visit	To assess the observation skills and ability to relate class room studies to industrial scenario.	Once during the Program	PO1, PO4, PO6, PO7, PO9 and PO10
Student Council	To assess the development of leadership and interpersonal skills	Once during the semester	PO2, PO5 and PO8
Alumni Survey	To assess the effectiveness of Program for the career development of the graduates	Every year during Alumni Meet	PO1, PO5 and PO11
Employer Survey	To assess the observation skills and ability to relate class room studies to industrial scenario	Once in a year	All POs

### 3.3.2. Provide results of evaluation of each PO

(30)

Program shall set Program Outcome attainment levels for all POs.

(The attainment levels by direct (student performance) and indirect (surveys) are to be presented through Program level Course-PO matrix as indicated).

#### PO Attainment for BATCH 2013-17

Course	Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
Physical Organic Chemistry	C101	2.88	-	1.42	-	-	0.95	-	0.95	-	-	1.15
Physical Pharmacy I	C102	3	2	1.39	1.24	-	1	-	1	-	-	1.39
Anatomy, Physiology and Pathophysiology I	C103	2.18	-	-	-	-	1.45	-	2.18	1.45	-	1.45
Environmental Science	C104	2	-	2	2	-	2	2	-	2	3	3
Communication Skill	C105	2.66	2.31	-	3	0.94	-	3	3	-	3	-
Physical Pharmacy Lab I	C106	3	3	3	1	2	-	1	3	-	-	3
Anatomy, Physiology and Pathophysiology Lab I	C107	3	-	3	2	-	2	-	-	2	2	3
Computer Lab	C108	-	0.77	1.53	2.3	-	-	-	2.3	-	1.53	2.3
Pharmaceutical Chemistry I	C201	2.94	-	-	-	-	2.94	0.97	0.97	2.94	-	0.97
Biochemistry I	C202	2.21	1.53	1.76	1.78	-	1.72	1.43	-	1.76	1.94	1.69
Pharmaceutics I	C203	2.7	-	1.77	-	-	1.44	1.63	-	1.82	-	1.82
Physical Pharmacy II	C204	1.51	1.13	0.98	0.53	-	0.6	-	0.5	-	-	1.51
Anatomy, Physiology and Pathophysiology II	C205	2.59	-	-	-	-	1.73	-	2.59	1.73	1.9	1.73
Pharmaceutical Chemistry Lab I	C206	3	3	3	-	-	2	-	2	3	-	1
Pharmaceutics Lab I	C207	3	1	-	-	-	1	3	2	-	-	1
Physical Pharmacy Lab II	C208	2	3	3	-	1	-	-	-	1	2	2
Organic Chemistry I	C301	0.51	0.15	0.13	-	-	0.21	-	0.25	0.15	-	0.36
Biochemistry II	C302	1.61	-	-	1.07	-	1.07	-	0.54	1.11	-	1.07
Dispensing Pharmacy	C303	1.92	1.56	1.65	0.79	1.09	2.3	2.4	2.01	1.8	2.1	1.86
Pharmaceutical Engineering	C304	2.09	-	1.39	-	0.47	1.47	1.4	1.4	1.4	2.3	2.09
Anatomy, Physiology and Pathophysiology III	C305	2.21	-	-	-	-	1.47	-	1.47	1.47	-	1.47
Mathematics	C306	2.38	1.79	2.57	2.39	-	1.59	-	-	-	-	1
Organic Chemistry Lab I	C307	3	3	3	-	-	1	-	2	-	-	1
Biochemistry Lab	C308	3	2	3	2	-	2	-	-	2	-	2
Dispensing Pharmacy Lab	C309	3	3	2	-	-	3	2	2	2	-	-
Organic Chemistry II	C401	1.48	0.48	0.48	-	-	0.49	0.53	0.53	-	-	1.37
Pharmaceutical Analysis	C402	2.48	2.85	2.38	0.89	1.89	1.93	1.8	0.9	0.9	1	1.9

I												
Pharmaceutics II	C403	2.52	2.32	1.66	3	2.7	2.2	2	2	2	1.74	1.74
Microbiology	C404	2.2	1.7	2.35	2.1	-	2.4	-	-	1.8	1.7	1.7
Pharmacology I	C405	2.64	-	-	-	-	1.76	-	1.76	1.76	-	1.76
Mathematics and Statistics	C406	2.2	2.2	1.8	2.2	-	2.2	-	-	-	-	1.4
Pharmaceutical Analysis Lab I	C407	3	3	3	1	-	2	-	1	-	-	1
Pharmaceutics Lab II	C408	3	2	-	2	2	3	-	-	-	-	2
Pharmacology Lab I	C409	3	-	3	-	2	-	-	-	2	-	3
Microbiology Lab	C410	3	2	3	3	-	-	2	-	2	2	-
Organic Chemistry III	C501	2.54	1.59	1.69	-	-	0.9	1.8	1.8	0.9	1.8	1.62
Cosmeticology	C502	2	2.18	2	2	-	-	1	1	1.49	1.74	2
Pharmaceutical Biotechnology	C503	2.56	2.06	2.06	2.28	-	2	1.7	-	1.85	2.35	2.12
Pharmacology II	C504	1.57	-	1.56	-	-	1.82	-	1.56	1.82	-	1.56
Pharmaceutical Management	C505	2.5	2.33	2.4	2.75	2.33	2	2	2	1.8	1	1.75
Organic Chemistry Lab II	C506	3	-	3	-	-	1	-	2	-	-	1
Pharmaceutical Biotechnology Lab	C507	-	2	3	3	-	-	-	-	3	3	-
Cosmeticology Lab	C508	-	2	3	-	-	3	2	1	2	-	2
Pharmaceutical Chemistry II	C601	2.3	-	-	-	-	1.96	-	1.76	1.67	-	1.24
Pharmaceutical Analysis II	C602	3	-	1.67	2.2	2	1.4	-	-	1	1	1.2
Pharmaceutics III	C603	2.67	1.95	1.94	1.38	1.7	1.75	1.95	0.85	0.93	0.85	0.89
Pharmacognosy and Phytochemistry I	C604	3	2	2	2	-	1.49	2	-	1.32	2	1.79
Hospital Pharmacy and Drug Store Management	C605	2.4	2.07	-	1.8	1.95	1.87	2.4	1.95	1.8	1.6	2.02
Pharmaceutical Chemistry Lab II	C606	3	2	1	-	-	3	-	-	1	3	-
Pharmaceutical Analysis Lab II	C607	3	2	3	3	-	2	3	-	3	-	2
Pharmaceutics Lab III	C608	3	3	3	1	3	3	3	1	-	-	2
Pharmacognosy and Phytochemistry Lab I	C609	3	-	2	2	-	2	-	-	-	2	3
Pharmaceutical Chemistry III	C701	2.94	-	1.96	-	-	0.98	0.98	0.98	0.98	-	1.96
Pharmaceutical Analysis III	C702	3	-	2.6	2.6	-	2.6	-	-	-	-	1
Pharmacology III	C703	2.85	-	-	-	-	1.9	-	1.9	1.9	-	-
Pharmaceutics IV	C704	3	3	2	1.5	1.5	1	1.4	2	1.67	2.67	1.2

Pharmacognosy and Phytochemistry II	C705	2.67	1.77	1.69	1.69	-	1.77	-	-	1.26	1.89	2.01
Pharmaceutical Jurisprudence	C706	2.7	2.37	-	1.8	2.1	1.67	2.63	1.7	2.64	-	2.6
Pharmaceutical Analysis Lab III	C707	3	3	3	3	-	2	-	-	1	-	1
Pharmaceutics Lab IV	C708	3	3	3	1	3	1	1	3	1	1	1
Pharmacology Lab II	C709	3	3	3	-	-	2	-	1	2	-	3
Pharmacognosy and Phytochemistry Lab II	C710	3	2	2	2	-	-	-	1	1	-	3
Pharmaceutical Chemistry IV	C801	2.88	-	1.92	-	-	0.96	0.96	0.96	0.96	-	1.92
Pharmaceutics V	C802	3	2	1.5	1.25	3	1	1.4	2	1.25	1.2	1.2
Biopharmaceutics and Pharmacokinetics	C803	2.41	2.55	1.78	2.05	-	2	1.4	0.93	0.7	-	1.73
Pharmacognosy and Phytochemistry III	C804	2.94	1	1.96	1.96	-	1.8	2.35	2.94	1.36	1.9	2.36
Clinical Pharmacy	C805	2.33	2	2.33	-	1	2.66	-	2.33	3	-	2.33
Pharmaceutical Chemistry Lab III	C806	2	2	1	-	-	2	-	-	2	2	1
Pharmaceutics Lab V	C807	3	3	3	2	2	3	1	1	1	1	1
Pharmacognosy and Phytochemistry Lab III	C808	3	3	3	2	-	-	2	2	2	2	2
Direct Attainment (80%)		<b>2.08</b>	<b>1.71</b>	<b>1.73</b>	<b>1.53</b>	<b>1.51</b>	<b>1.42</b>	<b>1.44</b>	<b>1.28</b>	<b>1.32</b>	<b>1.51</b>	<b>1.38</b>
Indirect Attainment (20%)		<b>0.52</b>	<b>0.49</b>	<b>0.48</b>	<b>0.47</b>	<b>0.5</b>	<b>0.51</b>	<b>0.49</b>	<b>0.48</b>	<b>0.49</b>	<b>0.51</b>	<b>0.49</b>
Total		<b>2.60</b>	<b>2.20</b>	<b>2.21</b>	<b>2.00</b>	<b>2.01</b>	<b>1.93</b>	<b>1.93</b>	<b>1.76</b>	<b>1.81</b>	<b>2.02</b>	<b>1.87</b>

**PO Attainment for BATCH 2012-16**

Course	Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
Physical Organic Chemistry	C101	2.06	-	1.03	-	-	0.68	-	0.68	-	-	0.84
Physical Pharmacy I	C102	2.85	1.93	1.33	1.16	-	0.93	-	0.88	-	-	1.35
Anatomy, Physiology and Pathophysiology I	C103	2.3	-	-	-	-	1.53	-	2.3	1.53	-	1.53
Environmental Science	C104	2	-	2	2	-	2	2	-	2	3	3
Communication Skill	C105	2.66	2.31	-	3	0.94	-	3	3	-	3	-
Physical Pharmacy Lab I	C106	3	3	3	1	2	-	1	3	-	-	3
Anatomy, Physiology and Pathophysiology Lab I	C107	2.3	-	2.3	1.53	-	1.53	-	-	1.53	1.53	2.3
Computer Lab	C108	-	1	2	3	-	-	-	3	-	2	3
Pharmaceutical Chemistry I	C201	2.94	-	-	-	-	2.94	0.98	0.98	2.94	-	0.98
Biochemistry I	C202	2.94	2	2.3	2.36	-	1.96	1.9	-	2.35	2.61	2.26
Pharmaceutics I	C203	3	-	2	-	-	1.59	1.79	-	2	-	2
Physical Pharmacy II	C204	2.91	2.25	1.94	0.95	-	1.16	-	0.98	-	-	2.91
Anatomy, Physiology and Pathophysiology II	C205	2.94	-	-	-	-	1.96	-	2.94	1.96	2	1.96
Pharmaceutical Chemistry Lab I	C206	3	3	3	-	-	2	-	2	3	-	1
Pharmaceutics Lab I	C207	3	1	-	-	-	1	3	2	-	-	1
Physical Pharmacy Lab II	C208	2	3	3	-	2	-	-	-	1	2	2
Organic Chemistry I	C301	1.6	0.53	0.53	-	-	0.53	-	0.66	0.53	-	1.06
Biochemistry II	C302	3	-	-	2	-	2	-	1	2	-	2
Dispensing Pharmacy	C303	2.39	2	2	1	1.32	2.8	3	2.5	2.24	3	2
Pharmaceutical Engineering	C304	2.94	-	2	-	1	2.3	3	3	3	3	2.94
Anatomy, Physiology and Pathophysiology III	C305	2.82	-	-	-	-	1.88	-	1.88	1.88	-	1.88
Mathematics	C306	2.4	1.8	2.6	2.4	-	1.6	-	-	-	-	1
Organic Chemistry Lab I	C307	3	3	3	-	-	1	-	2	-	-	1
Biochemistry Lab	C308	3	2	3	2	-	2	-	-	2	-	2
Dispensing Pharmacy Lab	C309	3	3	2	-	-	3	2	2	2	-	-
Organic Chemistry II	C401	0.33	0.09	0.09	-	-	0.11	0.2	0.2	-	-	0.29
Pharmaceutical Analysis I	C402	2.57	2.93	2.47	1	2	2	2	1	1	1	1.98
Pharmaceutics II	C403	2.6	2.33	1.66	3	3	2.5	2	2	2	1.74	1.74
Microbiology	C404	2.42	1.93	2.52	2.04	-	2.35	-	-	1.8	2.28	1.86
Pharmacology I	C405	2.73	-	-	-	-	1.82	-	1.82	1.82	-	1.82

Mathematics and Statistics	C406	2.2	2.2	1.8	2.2	-	2.2	-	-	-	-	1.4
Pharmaceutical Analysis Lab I	C407	3	3	3	1	-	2	-	1	-	-	1
Pharmaceutics Lab II	C408	3	2	-	2	2	3	-	-	-	-	2
Pharmacology Lab I	C409	3	-	3	-	2	-	-	-	2	-	3
Microbiology Lab	C410	3	2	3	3	-	-	2	-	2	2	-
Organic Chemistry III	C501	2.68	1.4	1.55	-	-	0.93	2	1.88	1	1	1.74
Cosmeticology	C502	2	2.18	2	2	-	-	1	1	1.49	1.74	2
Pharmaceutical Biotechnology	C503	2.56	2.2	2.16	2.34	-	1.93	2	-	1.95	2.5	2.5
Pharmacology II	C504	1	-	0.81	-	-	0.92	-	0.8	0.92	-	0.8
Pharmaceutical Management	C505	2.25	2.08	2.17	2.4	2.03	1.72	1.8	1.77	1.63	0.9	1.6
Organic Chemistry Lab II	C506	3	-	3	-	-	1	-	2	-	-	1
Pharmaceutical Biotechnology Lab	C507	-	2	3	3	-	-	-	-	3	3	-
Cosmeticology Lab	C508	-	2	3	-	-	3	2	1	2	-	2
Pharmaceutical Chemistry II	C601	2.5	-	-	-	-	2.1	-	1.9	1.8	-	1.74
Pharmaceutical Analysis II	C602	3	-	1.67	2.2	2	1.4	-	-	1	1	1.2
Pharmaceutics III	C603	2.58	1.89	1.94	1.37	1.7	1.71	1.89	0.85	0.85	0.78	0.86
Pharmacognosy and Phytochemistry I	C604	2.69	1.72	1.74	1.86	-	1.27	1.49	-	1.17	1.82	1.59
Hospital Pharmacy and Drug Store Management	C605	3	2.67	-	2.33	2.5	2.33	3	2.5	2.33	2	2.6
Pharmaceutical Chemistry Lab II	C606	3	2	1	-	-	3	-	-	1	3	-
Pharmaceutical Analysis Lab II	C607	3	2	3	3	-	2	3	-	3	-	2
Pharmaceutics Lab III	C608	3	3	3	1	3	3	3	1	-	-	2
Pharmacognosy and Phytochemistry Lab I	C609	3	-	2	2	-	2	-	-	-	2	3
Pharmaceutical Chemistry III	C701	3	-	2	-	-	1	1	1	1	-	2
Pharmaceutical Analysis III	C702	3	-	2.2	2.07	-	2.6	-	-	-	-	1
Pharmacology III	C703	2.76	-	-	-	-	1.84	-	1.84	1.84	-	-
Pharmaceutics IV	C704	2.94	3	1.98	1.5	1.5	0.95	1.36	2	1.6	2.57	1.18
Pharmacognosy and Phytochemistry II	C705	2.91	1.93	1.89	1.89	-	1.93	-	-	1.36	2	2.13
Pharmaceutical Jurisprudence	C706	2.7	2.52	-	1.63	1.97	1.7	2.66	1.45	2.58	-	2.6
Pharmaceutical Analysis	C707	3	3	3	3	-	2	-	-	1	-	1

Lab III												
Pharmaceutics Lab IV	C708	3	3	3	1	3	1	1	3	1	1	1
Pharmacology Lab II	C709	3	3	3	-	-	2	-	1	2	-	3
Pharmacognosy and Phytochemistry Lab II	C710	3	2	2	2	-	-	-	1	1	-	3
Pharmaceutical Chemistry IV	C801	3	-	2	-	-	1	1	1	1	-	2
Pharmaceutics V	C802	2.88	1.7	1.45	1.15	3	1	1.36	2	1.25	1.16	1.16
Biopharmaceutics and Pharmacokinetics	C803	2.6	3	2	2.5	-	2.2	2	1	1	-	1.8
Pharmacognosy and Phytochemistry III	C804	3	1	2	2	-	2	2.5	3	1.4	2	2.4
Clinical Pharmacy	C805	2.33	2	2.33	-	1	2.66	-	2.33	3	-	2.33
Pharmaceutical Chemistry Lab III	C806	2	2	1	-	-	2	-	-	2	2	1
Pharmaceutics Lab V	C807	3	3	3	2	2	3	1	1	1	1	1
Pharmacognosy and Phytochemistry Lab III	C808	3	3	3	2	-	-	2	2	2	2	2
Direct Attainment (80%)		<b>2.14</b>	<b>1.76</b>	<b>1.75</b>	<b>1.58</b>	<b>1.60</b>	<b>1.46</b>	<b>1.53</b>	<b>1.35</b>	<b>1.38</b>	<b>1.57</b>	<b>1.44</b>
Indirect Attainment (20%)		<b>0.55</b>	<b>0.53</b>	<b>0.52</b>	<b>0.52</b>	<b>0.53</b>	<b>0.54</b>	<b>0.54</b>	<b>0.53</b>	<b>0.54</b>	<b>0.55</b>	<b>0.54</b>
Total		<b>2.69</b>	<b>2.29</b>	<b>2.27</b>	<b>2.10</b>	<b>2.13</b>	<b>2.00</b>	<b>2.07</b>	<b>1.88</b>	<b>1.92</b>	<b>2.12</b>	<b>1.98</b>

**C101, C102 are indicative courses in the first semester. Similarly, C805 is the course in eight semester of study.**

*C101, C102 are indicative courses in the first year. Similarly, C409 is the final year course. First numeric digit indicates year of study and remaining two digits indicate course nos. in the respective year of study.*

- Direct attainment level of a PO is determined by taking average across all courses addressing that PO. Fractional numbers may be used for example 1.55.
- Indirect attainment level of a PO is determined based on the student exit surveys, employer surveys, co-curricular activities, extracurricular activities etc.

**Example:**

1. It is assumed that a particular PO has been mapped to four courses C201, C302, C303, C401.
2. The attainment level for each of the four courses will be as per the examples shown in 2.2.2
3. PO attainment level will be based on attainment levels of direct assessment and indirect assessment.
4. It is assumed that while deciding on the overall attainment level, 80% weightage may be given to direct assessment and 20% weightage to indirect assessment through surveys from students (largely), employers (to some extent). Program may have different weightages with appropriate justification.
5. Assuming following actual attainment levels:

**Direct Assessment**

C201 – High (3) C302 – Medium (2) C303 – Low (1) C401 – High (3)

Attainment level will be summation of levels divided by no. of courses  $3+2+1+3/4 = 9/4 = 2.25$

**Indirect Assessment**

Surveys, Analysis, customized to an average value as per levels 1, 2 & 3.

Assumed level - 2

PO Attainment level will be 80% of direct assessment + 20% of indirect assessment i.e.  $1.8 + 0.4 = 2.2$ .

**CRITERION 4**

**Students' Performance**

**180**

Item	CAY (2016-17)	CAYm1 (2015-16)	CAYm2 (2014-15)
Sanctioned intake of the Program (N)	60	60	60
Total number of students admitted in first year(N1)	60	58	54
Number of students admitted in 2nd year in the same batch (N2)	18	17	24
Total number of students admitted in the Program (N1 + N2)	78	75	78

**4.1. Enrolment Ratio**

**(20)**

Enrolment Ratio =  $N1/N$

Academic year	Sanctioned intake (N)	Total number of Student Enrolled (N1)	Enrolment ratio = $N1/N \times 100$	
2016-17 (CAY)	60	60	100	> 90% students enrolled
2015-16 (CAYm1)	60	60	100	> 90% students enrolled
2014-15 (CAYm2)	60	59	98.33	> 90% students enrolled



#### 4.2 Success rate in stipulated period of the Program

(50)

Year of entry	Number of students admitted in 1 <sup>st</sup> year + admitted via lateral entry in 2 <sup>nd</sup> year (N1+N2)	Number of students who have successfully graduated without backlogs in any year of study (without backlog means no compartment/failure in any semester /year of study)			
		I year	II year	III year	IV year
<b>CAY 2016-17</b>	60+18=78	28	-	-	-
<b>CAYm1 2015-16</b>	58+ 15=73	43+13=56	36+06=42		
<b>CAYm2 2014-15</b>	54+23=77	30+09=39	29+05=34	28+05=33	-
<b>CAYm3 (LYG) 2013-14</b>	53+19=72	29+05=34	22+03=25	19+03=22	19+03=22
<b>CAYm4 (LYGm1) 2012-13</b>	61+19=80	38+02=40	24+02=26	22+02=24	20+02 =22
<b>CAYm5 (LYGm2) 2011-12</b>	60+14=74	39+06=45	36+04=40	35+04=39	33+02=35

Year of entry	Number of students admitted in 1 <sup>st</sup> year + admitted via lateral entry in 2 <sup>nd</sup> year (N1+N2)	Number of students who have successfully graduated			
		I year	II year	III year	IV year
<b>CAY 2016-17</b>	60+18=78	39	---	----	----
<b>CAYm1 2015-16</b>	58+ 15=73	43+15=58	41+13=54	---	-----
<b>CAYm2 2014-15</b>	54+23=77	39+23=62	39+12=51	39+08=47	-----
<b>CAYm3 (LYG) 2013-14</b>	53+19=72	40+19=59	39+7=46	39+03=42	29+03=32
<b>CAYm4 (LYGm1) 2012-13</b>	61+19=80	46+19=65	42+04=46	37+04=41	35+04=39
<b>CAYm5 (LYGm2) 2011-12</b>	60+14=74	45+14=59	45+09=54	45+08=53	42+04=46

**4.2.1. Success rate without backlogs in any year of study**

**(30)**

*SI= (Number of students who graduated from the Program without backlog)/{(Number of students admitted in the first year of that batch) plus (lateral entry students admitted in second year of study)}*

*Average SI = mean of success index (SI) for past three batches*

*Success rate without backlogs in any year of study = 30 X Average SI*

Item	LYG (2016-17)	LYGm1 (2015-16)	LYGm2 (2014-15)
Number of students admitted in corresponding 1 <sup>st</sup> year + admitted via lateral entry in 2 <sup>nd</sup> year (N1+N2)	N1=53 N2=19 Total=72	N1=61 N2=19 Total=80	N1=60 N2=14 Total=74
Number of students who have graduated without backlogs in the stipulated period	N1=19 N2=03 Total=22	N1=20 N2=02 Total=22	N1=33 N2=02 Total=35
Success Index(SI)	0.3055	0.2750	0.4730

*Note: If 100% students clear without any backlog then also total marks scored will be 50 as both 4.2.1 & 4.2.2 will be applicable simultaneously.*

Average SI = mean of success index (SI) for past three batches

Average SI = 0.3512

Success rate= 30 X 0.3512

Success rate = 10.5360

#### 4.2.2 Success rate in stipulated period

(20)

$SI = \frac{\text{Number of students who graduated from the Program in the stipulated period of course duration}}{\{(\text{Number of students admitted in the first year of that batch}) \text{ plus } (\text{lateral entry students admitted in second year of study})\}}$

Average SI = mean of success index (SI) for past three batches

Success rate = 20 X Average SI

Item	LYG (2016-17)	LYGm1 (2015-16)	LYGm2 (2014-15)
<b>Number of students admitted in 1<sup>st</sup> year + admitted via lateral entry in 2<sup>nd</sup> year (N1+N2)</b>	N1=53 N2=19 Total=72	N1=61 N2=19 Total=80	N1=60 N2=14 Total=74
<b>Number of students who have graduated in the stipulated period</b>	N1=29 N2=03 Total=32	N1=35 N2=04 Total=39	N1=42 N2=04 Total=46
<b>Success Index(SI)</b>	0.4444	0.4875	0.6216

Average SI = mean of success index (SI) for past three batches

Average SI = 0.5178

Success rate = 20 X 0.5178

Success rate = 10.3560

### 4.3 Academic performance in Final Year

(10)

*Academic Performance = Average API*

*Academic Performance Index = ((Mean of Final year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Final Year/10)) X (successful students / number of students appeared in the examination)*

**Successful students are those who passed in all the final year courses**

Academic Performance	LYG (2016-17)	LYGm1 (2015-16)	LYGm2 (2014-15)
Mean of CGPA or mean percentage of all successful students/10 (X)	7.03	7.08	5.34
Total no. of successful students (Y)	40	39	59
Total no. of students appeared in the examination (Z)	57	53	70
API= X * (Y/Z)	4.94	5.21	4.50
Average API= (AP1+AP2+AP3)/3	4.88		
Academic performance = Average API = (AP1+AP2+AP3)/3	4.88		

### 4.4 Academic performance in Third Year

(10)

*Academic Performance = Average API*

*Academic Performance Index = ((Mean of third year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in third year/10)) X (successful students / number of students appeared in the examination)*

**Successful students are those who are permitted to proceed to the final year**

Academic Performance	LYG (2016-17)	LYGm1 (2015-16)	LYGm2 (2014-15)
Mean of CGPA or mean percentage of all successful students/10 (X)	6.79	6.13	6.06
Total no. of successful students (Y)	58	63	46
Total no. of students appeared in the examination (Z)	62	68	58
API= X * (Y/Z)	6.35	5.68	4.81
Average API= (AP1+AP2+AP3)/3	5.61		
Academic performance= Average API= (AP1+AP2+AP3)/3	5.61		

#### 4.5 Academic performance in Second Year

(10)

*Academic performance = Average API*

*Academic Performance Index = (API) = ((Mean of 2<sup>nd</sup> year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Second Year/10)) X (successful students / number of students appeared in the examination)*

*Successful students are those who are permitted to proceed to the Third Year*

Academic Performance	LYG (2016-17)	LYGm1 (2015-16)	LYGm2 (2014-15)
Mean of CGPA or mean percentage of all successful students/10 (X)	6.23	6.29	6.25
Total no. of successful students (Y)	51	54	50
Total no. of students appeared in the examination (Z)	66	69	59
API= X * (Y/Z)	4.80	4.92	5.29
Average API= (AP1+AP2+AP3)/3	5		
Academic performance= Average API= (AP1+AP2+AP3)/3	5		

#### 4.6 Academic performance in First Year

(20)

*Academic performance = Average API*

*Academic Performance Index = ((Mean of 2<sup>nd</sup> year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Second Year/10)) X (successful students / number of students appeared in the examination)*

*Successful students are those who are permitted to proceed to the Second year*

Academic Performance	LYG (2016-17)	LYGm1 (2015-16)	LYGm2 (2014-15)
Mean of CGPA (X)	6.49	6.43	6.37
Total no. of successful students (Y)	39	43	39
Total no. of students appeared in examination (Z)	49	61	54
API = X * Y / Z	5.17	4.53	4.60
Average API = AP1+AP2+AP3/3	4.77		
Academic Performance = 2.0 * Average API	9.54		

#### 4.7. Placement and Higher Studies

(40)

Assessment Points =  $40 \times (x + y)/N$

Item	LYG (2016-17)	LYGm1 (2015-16)	LYGm2 (2014-15)
Total No. of Final Year Students (N)	58	53	70
Number of students placed in Industries/Hospitals/Government sector through ON/OFF campus recruitment opted for Entrepreneurship (x)	21	24	28
Number of students admitted to higher studies with valid scores in various qualifying exams (y)	07	14	25
X+Y	28	38	53
Placement Index: $(x+y)/N$	0.48	0.71	0.75
T = Average of $(x+y)/N$	0.65		
Assessment = $40 \times T$	26		

#### 4.8. Professional Activities

(20)

##### 4.8.1. Professional societies / chapters and organizing pharmacy events

(05)

(Provide the relevant details)

#### Academic Year: 2016-17

Sr. No	Name of Activity	Nature of Activity	Date	Venue	Associated Professional Society / Body	No. of student/ volunteers participated
1.	A Step Towards Healthier Society: Education	Campaign	07/10/2016	Krantiveer Vasudev Balvant Fadke Vidyalaya Sector 8, CBD Belapur	IPA	200
2.	Anti-HIV Campaign	Campaign	01/12/2016	CBD Belapur	IPA	150
3.	Anti- TB Campaign	Campaign	02/12/2016	CBD Belapur	IPA	135
4.	Diabetes Campaign	Campaign	06/12/2016	CBD Belapur And Service Tax, Khandeshwar	IPA	40
5.	Self-Harm Awareness	Skit	15/12/2016	Sector4, CBD Belapur	IPA	15
6.	Anaemia-Menstruation Awareness	Talk	16/12/2016	Bharati Vidyapeeth's School, CBD Belapur	IPA	15
7.	Blood Donation	Campaign	04/01/2017	CBD Belapur	IPA	22
8.	Nutrition Awareness	Talk	04/01/2017	CBD Belapur	IPA	25
9.	Breast Cancer Awareness	Rally	07/01/2017	CBD Belapur	IPA	22
10.	Health Check Up	Check Up Campaign	05/01/2017	CBD Belapur	IPA	20
11.	Thyroid Awareness	Talk	07/01/2017	CBD Belapur	IPA	22



**Academic Year: 2015-16**

<b>Sr. No</b>	<b>Name of Activity</b>	<b>Nature of Activity</b>	<b>Date</b>	<b>Venue</b>	<b>Associated Professional Society / Body</b>	<b>No. of student/ volunteers participated</b>
<b>1</b>	Social Responsibility Awareness	Interactive Session	30/10/2015	Shanti Dham Ashram, Borivali (West), Mumbai	IPA	30
	Health and Hygiene Awareness	Campaign	03/11/2015	Durgadevi Zopadpatti, CBD Belapur, Navi Mumbai Ramabai Nagar, CBD Belapur, Navi Mumbai	IPA	49
<b>3</b>	Anxiety and Depression Awareness	Seminar, Case Studies Discussion, Audio-visual Presentations	18/12/2015	Bharati Vidyapeeth's Institute of Management and Information Technology, CBD Belapur, Navi Mumbai	IPA	21
<b>4</b>	AIDS Awareness	Campaign	19/12/2015	Ramabai Nagar, CBD Belapur, Navi Mumbai	IPA	38
<b>5</b>	First Aid Awareness and Demonstrations	Demonstration	21/12/2015	Bharati Vidyapeeth's High School, CBD Belapur, Navi Mumbai	IPA	35
<b>6</b>	Eye Check Up and Eye Donation Awareness	Campaign	22/12/2015	Bharati Vidyapeeth's College of Pharmacy, Navi Mumbai	IPA Advanced Eye Hospital And Institute (AEHI), Navi Mumbai	15
<b>7</b>	Eye Donation Awareness	Rally	04/01/2016	From- Bharati Vidyapeeth's College of Pharmacy, Navi Mumbai	IPA Advanced Eye Hospital And Institute (AEHI),	60

				To- Railway Station, CBD Belapur, Navi Mumbai	Navi Mumbai	
<b>8</b>	Blood Donation	Campaign	07/01/2016	Bharati Vidyapeeth's College of Pharmacy, Navi Mumbai BVDU Dental College and Hospital, Kharghar, Navi Mumbai Bharati Vidyapeeth's College of Hotel Management and Catering Technology, Navi Mumbai	IPA Blood bank- Navi Mumbai Blood Bank, Kharghar	22
<b>9</b>	Anger Management Program	Seminar, Case Studies Discussion, Audio-visual Presentations	12/01/2016	Bharati Vidyapeeth's College of Pharmacy, Navi Mumbai BVDU Dental College and Hospital, Kharghar, Navi Mumbai B.V. College of Architecture, Kharghar, Navi Mumbai	IPA	20
<b>10</b>	Nutrition Awareness	Seminar	13/01/2016	Bharati Vidyapeeth's College of Pharmacy, Navi Mumbai BVDU Dental College and Hospital, Kharghar, Navi Mumbai		

B.V. College of  
Architecture,  
Kharghar, Navi  
Mumbai

**Academic Year: 2014-15**

Sr. No	Name of Activity	Nature of Activity	Date	Venue	Associated Professional Society / Body	No. of student/ volunteers participated
1	Acne Prevention Awareness Program	Seminar	05/08/2014	Bharati Vidyapeeth's College of Pharmacy, C.B.D., Navi Mumbai	Sharp NGO Rajasthan	35
2	Blood donation	Campaign	16/08/2014	Bharati Vidyapeeth's College of Pharmacy, C.B.D., Navi Mumbai	IPA In association with J. J. Mahanagar Blood Bank, Mumbai	40
3	"Kali Phultana" Adolescence Awareness	Seminar	18/11/2014	Bharati Vidyapeeth Prashala, CBD Belapur Std VII and Std VIII	IPA	80
4	Blood Donation	Campaign	07/01/2015	Bharati Vidyapeeth's College of Pharmacy, Navi Mumbai	IPA in association with ACTREC Blood Bank	10

#### 4.8.2. Publication of technical magazines, newsletters, etc.

(05)

(List the publications mentioned along with the names of the editors, publishers, etc.)

Name of Publication	Editors	Publisher	Frequency
<b>SPANDAN</b> .....A <b>Pulse of Innovation</b>	Dr. (Mrs.) V. M. Jadhav Mrs. Manisha S. Karpe Mrs. Vaibhavi N. Garge Ms. Sneha J. Mundada	Dr. Vilasrao J. Kadam Bharati Vidyapeeth's College of Pharmacy, Sector-8, C.B.D. Belapur, Navi Mumbai – 400 614	Annual
<b>BVCOP</b> In-House <b>Journal</b>	Dr. Neha Dand Dr. Rhea Mohan Mr. Nilkamal Waghmare	Dr. Vilasrao J. Kadam Bharati Vidyapeeth's College of Pharmacy, Sector-8, C.B.D. Belapur, Navi Mumbai – 400 614	Annual

#### 4.8.3 Participation in inter-institute events by students of the Program of study (10)

(Provide a table indicating those publications, which received awards in the events/conferences organized by other institutes)

Following table indicates the name of students who received awards in Poster/Quiz/Debate competition organized by other institutes.

2016-2017						
Sr. No	Name of Students	Event	Activity	Organized by	Date	Awards
1	Chetan Pawar and Tanvi Wani	Chemtastic	Chem –in- motion	Vivekanand Education Society's College of Pharmacy, Chembur	23/07/2016	1 <sup>st</sup> Place
2	Gauri Ghag and Durve Sanjana	National Level Poster Presentation	Synthesis of Chalcone and its anticancer activities on zebra fish model	Ideal College of Pharmacy and Research, Kalyan	2/09/2016	1 <sup>st</sup> Place
3	Harsh Barua, Jignesh Panchal, Santosh Samal	Rx Tech fest Oral Paper Presentation	Novel solubilization techniques for analysis of solid dosage form	IPA Student forum, Bombay College of Pharmacy, Kalina,Santacruz	07/01/2017	1 <sup>st</sup> Place

4	Tanvi Rane, Parimalasree Chellappa, Rupali Madapura	Rx Tech fest Oral Paper Presentation	Use of chromatogra phic techniques for determinatio n of herbal drug interaction	IPA Student forum , Bombay College of Pharmacy, Kalina, Santacruz	07/01/2017	2 <sup>nd</sup> Place
<b>2015-2016</b>						
Sr. No	Name of Students	Event	Activity	Organized by	Date	Awards
1	Shloka Aiyer, Rupali Madapura, Parimalasree Chellappa and Harsh Barua	Tech Crunch	Debate Competition	HK College of Pharmacy, Jogeshwari. Mumbai	29/09/2015	1 <sup>st</sup> Place
2	Suchi Dubey and Apurva Dusane	One Day National Seminar and Poster Presentation	Poster Presentation	HK college of Pharmacy, Jogeshwari. Mumbai	01/10/2015	1 <sup>st</sup> Place
3	Saurabh Korgaonkar and Varunkumar Yadav	15 <sup>th</sup> Intercollegiat e State Level Pharma Quiz	Pharma Quiz	Saraswathi Vidya Bhavan's College of Pharmacy, Mumbai	29/01/2016	1 <sup>st</sup> Place
4	Leena Pade and Nayan Mandora	15 <sup>th</sup> Intercollegiat e State Level Pharma Quiz	Pharma Quiz	Saraswathi Vidya Bhavan's College of Pharmacy, Mumbai	29/01/2016	2 <sup>nd</sup> Place
<b>2014-2015</b>						
Sr. No	Name of Students	Event	Activity	Organized by	Date	Awards
1	Poonam Badade and Shloka Aiyer	Rx Tech Fest Poster Presentation	Poster Presentation	IPA Student Forum, Maharashtra Branch, Mumbai	14/12/2014	1 <sup>st</sup> Place
2	Harsh Barua, Siddhi Shirke, Santosh Samal	Rx Tech Fest Poster Presentation	Poster Presentation	IPA Student Forum, Maharashtra	14/12/2014	1 <sup>st</sup> place

					Branch, Mumbai	
3	Avani Dandekar and Mrunal Bhide	Rx Tech Fest Poster Presentation	Poster Presentation	IPA Student Forum, Maharashtra Branch, Mumbai	14/12/2014	2 <sup>nd</sup> Place

## Criterion 5 Faculty Information and Contributions

175

### 5. Faculty Information and Contributions: (175)

(List of Faculty Members: Exclusively for the Program/shared with other Programs)

Institute is having experienced faculty with average experience  $\geq 15$  yrs.

Majority of teaching faculties are also engaged in research (sponsored by different funding agencies) and are upgraded with current trends in pharmacy. Thus play key roles in transforming students into professional pharmacist.

#### Assessment year: 2016-17

Academic research. Faculty Name	Qualification , University and year of graduation	Designation and date of joining the institution	Distribution of teaching load (%)							Sponsored research (Funded research)	Consultancy and product development
			1 <sup>st</sup> Year	UG	PG	Diploma	Faculty receiving Phd during Assessment year	Phd Guidance	Paper publications		
<b>Dr. Kisan. R. Jadhav</b>	Ph.D, Bharati Vidyapeeth University, 2010	Professor 07/07/94	14.3	14.3	71.4	-	1	1	3+1 book chapter	-	-
<b>Dr. C. S. Ramaa</b>	Ph.D, University of Mumbai, 1997	Professor 02/12/96	0	50	50	-	-	4	5+1 (guest editor volum e)	1	-
<b>Dr. (Mrs.) Varsha. M. Jadhav</b>	Ph.D., University of Mumbai, 1996	Professor 22/06/96	0	52.9	47.1	-	-	-	-	-	-
<b>Dr. (Mrs) Mrunmayee P. Toraskar</b>	Ph.D.,Bhara ti Deemed University, 2011	Associate Professor 03/08/95	0	80	20	-	-	-	1	1	-
<b>Dr. Sandeep P. Patankar</b>	Ph.D., University of Mumbai, 2004	Associate Professor 22/01/07	0	88	12	-			2	-	
<b>Mrs. Manisha Karpe</b>	M. Pharm., SNDT Women's University, 2000	Associate Professor 16/08/08	4	88	8	-	-	-	2	-	-

<b>Mrs. Vineeta Khanvilkar</b>	M. Pharm., University of Pune, 1998	Associate Professor 21/01/08	0	91.7	8.3	-	-	-	4	-	-
<b>Dr. Aruna P. Jadhav</b>	Ph. D., University of Mumbai, 2007	Associate Professor 17/12/05	0	100	0	-	-	-	6	-	-
<b>Mrs. Deepali M. Jagdale</b>	M. Pharm., SNDT Women's University, 2004	Assistant Professor 13/07/07	0	87.9	12.1	-	-	-	3	-	-
<b>Dr. Shrutika Patil</b>	Ph.D., PAHER University, 2017	Assistant Professor 11/08/08	58.1	38.7	3.2	-	Yes	-	-	1	1
<b>Ms. Vaibhavi Garge</b>	M. Pharm, M. S. University of Baroda, 2001	Assistant Professor 24/08/12	29.6	48.1	22.2	-	-	-	-	1	1
<b>Dr. Sneha Mundada</b>	Ph.D., PAHER University, 2017	Assistant Professor 01/07/10	38.7	61.3	0	-	Yes	-	-	-	-
<b>Dr. Neha Dand</b>	Ph. D., University of Mumbai, 2012	Assistant Professor 15/12/10	5.9	91.2	2.9	-	-	-	2	-	1
<b>Mr. Nilkamal Waghmare</b>	M. Pharm., Dr. BAMU, 2008	Assistant Professor 01/07/10	32	6	0	-	-	-	-	-	1
<b>Dr. Rhea Mohan</b>	Ph. D., University of Mumbai, 2013.	Assistant Professor 16/08/11	0	100	0	-	-	-	-	-	-
<b>Mr. Dhiraj Nikam</b>	M. Pharm., NMIMS University, Shirpur, 2009	Assistant Professor 14/12/12	50	47.1	2.9	-	-	-	-	-	-
<b>Mr. Sandeep R Nikam</b>	M.Sc., Shivaji University, 1996	Associate Professor 07/07/97	5.9	91.2	2.9	-	-	-	1	-	-
<b>Mr. Abhay R. Shirode</b>	M. Pharm., University of Mumbai, 2006.	Assistant Professor 05/01/06	10.3	79.3	10.3	-	-	-	4	1	-
<b>Ms. Swati Dhande</b>	M. Pharm., University of Mumbai, 2007	Assistant Professor 05/12/09	0	76.9	23.1	-	-	-	5	-	-



<b>Dr. Meenakshi Patnaik</b>	PhD, Berhampur University, 2012	Professor 03/07/14	0	75	25	-	-	-	-	-	-
<b>Ms. Pooja Pherwani</b>	M Pharm. University of Mumbai 1996	Associate Professor 08/08/16	71.4	28.6	0	-	-	-	-	-	-

**Assessment year: 2015-16**

Academic research. Faculty Name	Qualification, University and year of graduation	Designation and date of joining the institution	Distribution of teaching load (%)							Sponsored research (Funded research)	Consultancy and product development
			1 <sup>st</sup> Year	UG	PG	Diploma	Faculty receiving Phd during Assessment year	Phd Guidance	Paper publications		
<b>Dr. Kisan. R. Jadhav</b>	Ph.D, Bharati Vidyapeeth University, 2010	Professor 07/07/94	0	28.6	71.4	-	-	2	3+1 book chapter	1	-
<b>Dr. C. S. Ramaa</b>	Ph.D, University of Mumbai, 1997	Professor 02/12/96	0	40.0	60.0	-	-	4	-	-	-
<b>Dr. (Mrs.) Varsha. M. Jadhav</b>	Ph.D., University of Mumbai, 1996	Professor 22/06/96	0	58.8	41.2	-	-	-	3	1	-
<b>Dr. (Mrs.) Mrunmayee P. Toraskar</b>	Ph.D., Bharati University, 2011	Associate Professor 03/08/95	0	80.0	20.0	-	1	-	3	-	-
<b>Dr. Sandeep P. Patankar</b>	Ph.D., University of Mumbai, 2004	Associate Professor 22/01/07	0	88.0	12.0	-	-	-	-	-	-
<b>Mrs. Manisha Karpe</b>	M. Pharm., SNTD Women's University, 2000	Associate Professor 16/08/08	40.0	52.0	8.0	-	-	-	7	-	-
<b>Mrs. Vineeta Khanvilkar</b>	M. Pharm., University of Pune, 1998	Associate Professor 21/01/08	0	85.7	14.3	-	-	-	3	1	-
<b>Dr. Aruna P. Jadhav</b>	Ph. D., University of Mumbai, 2007	Associate Professor 17/12/05	0	95.8	4.2	-	-	-	4	-	-
<b>Mrs. Deepali M. Jagdale</b>	M. Pharm., SNTD Women's University, 2004	Assistant Professor 13/07/07	0	86.2	13.8	-	-	-	1	---	-

<b>Ms. Shrutika Patil</b>	M. Pharm, SNDT Women's University, 2005	Assistant Professor 11/08/08	12.1	84.9	3.0	-	-	-	1	-	-
<b>Ms. Vaibhavi Garge</b>	M. Pharm, The M.S. University of Baroda, 2001	Assistant Professor 24/08/12	0	77.8	22.2	-	-	-	10	-	-
<b>Ms. Sneha Mundada</b>	M. Pharm., North Maharashtra University, 2008	Assistant Professor 01/07/10	25.8	71.0	3.2	-	-	-	-	-	-
<b>Dr. Neha Dand</b>	Ph. D., University of Mumbai, 2012	Assistant Professor 15/12/10	5.9	94.1	0	-	-	-	1	-	-
<b>Mr. Nilkamal Waghmare</b>	M. Pharm., Dr. BAMU, 2008	Assistant Professor 01/07/10	73.5	26.5	0.0	-	-	-	-	-	-
<b>Dr. Rhea Mohan</b>	Ph. D., University of Mumbai, 2013.	Assistant Professor 16/08/11	0	94.1	5.9	-	-	-	-	-	-
<b>Mr. Dhiraj Nikam</b>	M. Pharm., NMIMS University, Shirpur, 2009	Assistant Professor 14/12/12	61.8	35.3	2.9	-	-	-	1	-	-
<b>Mr. Sandeep R Nikam</b>	M.Sc., Shivaji University, 1996	Associate Professor 07/07/97	0	100	0	-	-	-	-	-	-
<b>Mr. Abhay R. Shirode</b>	M. Pharm., University of Mumbai, 2006.	Assistant Professor 05/01/06	0	82.1	17.9	-	-	-	3	-	-
<b>Ms. Swati Dhande</b>	M. Pharm., University of Mumbai, 2007	Assistant Professor 05/12/09	16.0	56.0	28.0	-	-	-	5	-	-
<b>Dr. Meenakshi Patnaik</b>	PhD, Berhampur University, 2012	Professor 03/07/14	0	60.0	40.0	-	-	-	15	-	-
<b>Dr. Y. M. Joshi</b>	Ph.D., International University of Alternative Medicines, Colombo, 2002	Associate Professor 29/12/04	57.1	42.9	0	-	-	-	1	-	-

Assessment year: 2014-15

Academic research. Faculty Name	Qualification , University and year of graduation	Designation and date of joining the institution	Distribution of teaching load (%)							Sponsored research (Funded research)	Consultancy and product development
			1 <sup>st</sup> Year	UG	PG	Diploma	Faculty receiving Phd during Assessment year	Phd Guidance	Paper publications		
<b>Dr. Kisan. R. Jadhav</b>	Ph.D, Bharati Vidya peeth University, 2010	Professor 07/07/94	0.0	37.5	62.5	-	-	2	3+1 book chapter	-	-
<b>Dr. C. S. Ramaa</b>	Ph.D, University of Mumbai, 1997	Professor 02/12/96	0	33.3	66.7	-	-	6	2	3	-
<b>Dr. (Mrs.) Varsha. M. Jadhav</b>	Ph.D., University of Mumbai, 1996	Professor 22/06/96	0	64.7	35.3	-	-	-	4	-	-
<b>Dr. (Mrs) Mrunmayee P. Toraskar</b>	Ph.D., Bharati Deemed University, 2011	Associate Professor 03/08/95	0	80.0	20.0	-	-	1	3	-	-
<b>Dr. Sandeep P. Patankar</b>	Ph.D., University of Mumbai, 2004	Associate Professor 22/01/07	0	87.5	12.5	-	-	-	-	-	-
<b>Mrs. Manisha Karpe</b>	M. Pharm., SNDT Women's University, 2000	Associate Professor 16/08/08	40	52.0	8.0	-	-	-	3	1	-
<b>Mrs. Vineeta Khanvilkar</b>	M. Pharm., University of Pune, 1998	Associate Professor 21/01/08	0	81.8	18.2	-	-	-	3	-	-
<b>Dr. Aruna P. Jadhav</b>	Ph. D., University of Mumbai, 2007	Associate Professor 17/12/05	0	92.0	8.0	-	-	-	4	1	-
<b>Mrs. Deepali M. Jagdale</b>	M. Pharm., SNDT Women's University, 2004	Assistant Professor 13/07/07	0	83.3	16.7	-	-	-	3	1	-
<b>Ms. Shrutika Patil</b>	M. Pharm, SNDT Women's University, 2005	Assistant Professor 11/08/08	12.1	84.9	3.0	-	-	-	-	-	-

<b>Ms. Vaibhavi Garge</b>	M. Pharm, The M. S. University of Baroda, 2001	Assistant Professor 24/08/12	0	78.2	21.8	-	-	-	1	-	-
<b>Ms. Sneha Mundada</b>	M. Pharm., North Maharashtra University, 2008	Assistant Professor 01/07/10	27.6	69.0	3.4	-	-	-	-	-	-
<b>Dr. Neha Dand</b>	Ph. D., University of Mumbai, 2012	Assistant Professor 15/12/10	6.5	90.3	3.2	-	-	-	3	-	-
<b>Mr. Nilkamal Waghmare</b>	M. Pharm., Dr. BAMU, 2008	Assistant Professor 01/07/10	85.3	14.7	0.0	-	-	-	1	-	-
<b>Dr. Rhea Mohan</b>	Ph. D., University of Mumbai, 2013.	Assistant Professor 16/08/11	23.5	70.6	5.9	-	-	-	-	1	-
<b>Mr. Dhiraj Nikam</b>	M. Pharm., NMIMS University, Shirpur, 2009	Assistant Professor 14/12/12	61.8	35.3	2.9	-	-	-	-	1	-
<b>Mr. Sandeep R Nikam</b>	M.Sc., Shivaji University, 1996	Associate Professor 07/07/97	0	95.8	4.2	-	-	-	-1	-	-
<b>Mr. Abhay R. Shirode</b>	M. Pharm., University of Mumbai, 2006.	Assistant Professor 05/01/06	0	89.7	10.3	-	-	-	5	-	-
<b>Ms. Swati Dhande</b>	M. Pharm., University of Mumbai, 2007	Assistant Professor 05/12/09	13.6	66.1	20.3	-	-	-	9	1	-
<b>Dr. Meenakshi Patnaik</b>	PhD, Berhampur University, 2012	Professor 03/07/14	0	87.5	12.5	-	-	-	11	-	-
<b>Dr. Y. M. Joshi</b>	Ph.D., International University of Alternative Medicines, Colombo, 2002	Associate Professor 29/12/04	57.1	42.9	0.0	-	-	-	1	-	-

### 5.1 Student-Faculty Ratio (SFR)

(20)

$S:F$  ratio =  $N/F$ ;  $F$  = No. of faculty =  $(a + b - c)$  for every assessment year

a: Total number of full-time regular Faculty serving fully to 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> & 4<sup>th</sup> year of the Program

b: Total number of full-time equivalent regular Faculty (considering fractional load) serving this Program from PG/Diploma Program(s)

c: Total number of full time equivalent regular Faculty (considering fractional load) of this Program serving PG/Diploma Program(s)

#### Regular Faculty means:

- Full time On-Roll with prescribed pay scale. An employee on contract for a period of more than two years AND drawing consolidated salary equal or more than applicable gross salary shall only be counted as a regular employee.
- Prescribed pay scales means pay scales notified by the AICTE/Central Govt. and implementation as prescribed by the State Govt. In case State Govt. prescribes lesser consolidated salary for a particular cadre then same will be considered as reference while counting faculty as a regular faculty.

$N$  = No. of students =  $4x$  where  $x$  is approved intake + lateral entry intake (20% of approved intake)

$N$  = No. of students =  $4x$  where  $x$  is approved intake + lateral entry intake (20% of approved intake) = 252

Year	x	N	F	SFR=N/F
CAY 2016-17	60	252	16.4	15.4
CAYm1 2015-16	60	252	13.6	18.5
CAYm2 2014-15	60	252	14.2	17.7
Average SFR for three assessment years:				17.2

**Note:** Marks to be given proportionally from a maximum of 20 to a minimum of 10 for average SFR of 15:1 to 20:1, and zero for average SFR higher than 20:1

## 5.2 Faculty Cadre Proportion (20)

The reference Faculty cadre proportion is 1(F1):2(F2):6(F3)

F1: Number of Professors required =  $1/9 \times$  Number of Faculty required to comply with 15:1 Student-Faculty ratio.

F2: Number of Associate Professors required =  $2/9 \times$  Number of Faculty required to comply with 15:1 Student-Faculty ratio.

F3: Number of Assistant Professors required =  $6/9 \times$  Number of Faculty required to comply with 15:1 Student-Faculty ratio

Year	Professor		Associate Professor		Assistant Professor	
	Required F1	Available	Required F2	Available	Required F3	Available
<b>CAY</b> 2016-17	2	5	4	6	11	10
<b>CAY1</b> 2015-16	2	5	4	6	11	10
<b>CAYm2</b> 2014-15	2	5	4	6	11	10
<b>Average numbers</b>	RF1=2	AF1=4.67	RF2=4	AF2=6	RF3=11	AF3=10

Cadre Proportion: 1(F1): 2(F2):6(F3)

Average Faculty Cadre Proportion: 1(4.67): 2(6):6(10)

$$\begin{aligned}
 \text{Cadre Proportion marks} &= \left[ \frac{AF1}{RF1} \right] + \left[ \frac{AF2}{RF2} \times 0.6 \right] + \left[ \frac{AF3}{RF3} \times 0.4 \right] \times 10 \\
 &= \left[ \frac{4.67}{2} \right] + \left[ \frac{6}{4} \times 0.6 \right] + \left[ \frac{10}{11} \times 0.4 \right] \times 10 \\
 &= [2.31 + 0.9 + 0.37] \times 10 \\
 &= 3.574 \times 10 \\
 &= 35.74
 \end{aligned}$$

### 5.3 Faculty Qualification

(20)

$$FQ=2*(10X+6Y)/F$$

Where: X is no. of faculty with Ph.D, Y is no. of faculty with M. Pharm., F is no. of faculty required to comply 1:15 Faculty Student Ratio. (no. of faculty and no. of students required to be calculated as per 5.1)

Year	X	Y	F	FQ=2*(10X+6Y)/F
<b>CAY</b> <b>2016-17</b>	12	9	16.4	21.2
<b>CAYm1</b> <b>2015-16</b>	11	10	13.6	25
<b>CAYm2</b> <b>2014-15</b>	11	10	14.2	23.9
<b>Average Assessment</b>				23.4

### 5.4 Faculty Retention

(20)

Item	Marks
>= 90% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	20
>= 75% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	16
>= 60% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	12
>= 50% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	8
<50% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	0

**>= 90% of required Faculty members retained during the period of assessment keeping 2014-15 as base year**

Current Academic Year	Marks
<b>2016-17</b>	> 90% of required Faculty members retained during the period of assessment keeping 2014-15 as base year

### 5.5 Innovations by the Faculty in Teaching and Learning

(15)

Innovations by the Faculty in teaching and learning shall be summarized as per the following description.

Contributions to teaching and learning are activities that contribute to the improvement of student learning. These activities may include innovations including, however not limited to, use of ICT, in instruction delivery, instructional methods, assessment, evaluation and inclusive class rooms that lead to effective, efficient and engaging instruction. Any contributions to teaching and learning should satisfy the criteria:

- ☐ The work must be made available on Institute website
- ☐ The work must be available for peer review and critique
- ☐ The work must be able to be reproduced and built on by other scholars

The institution may set up appropriate processes for making the contributions available to the public, getting them reviewed and for rewarding. These may typically include statement of clear goals, adequate preparation, use of appropriate methods, significance of results, effective presentation and reflective critique.

In order to make the teaching learning process interesting and interactive a lot of measures are taken by the faculties. They mainly rely on the use of ICTs. The common practices undertaken are listed below:

- Use of Email to communicate with the students – Notices, Assignments, Deadlines etc. are communicated to the students via email thereby making communication very prompt.
- Teachers other than using the available material also try to develop their own videos or animations to explain a concept more clearly.
- The college website has been made very student friendly wherein all the information, notes, past question papers etc. are made available to the students via their individual log- ins.
- The best way to judge the student's grasping of a subject is by the means of class tests and quizzes. To make this job more interesting, tests are generated in the forms of crosswords, mazes, puzzles etc. so that the students find them engaging.
- As a part of our continuous efforts to groom our students, T. Y. B. Pharm students are encouraged to take up a research project. The findings of their research are then published in an in-house journal which is made available on the college website so that others can make use of their findings.

Most of these innovations are made available on the website so that other teachers and students can make full use of them in improving their teaching and learning.

#### 5.6 Faculty as participants in Faculty Development/Training Activities

(15)

- ☐ A Faculty scores maximum five points for participation
- ☐ Participant in 2 to 5 days' Workshop/Faculty Development Program: 3 Points
- ☐ Participant >5 days' Workshop/Faculty Development Program: 5 points

Faculty members actively participate in various workshops and faculty development programs

Name of the Faculty	Max. 5 per Faculty		
	CAY 2016-17	CAYm1 2015-16	CAYm2 2014-15
Dr. K.R Jadhav		----	1(5)
Dr. S. P. Patankar		1 (3)	-----
Dr. A. P. Jadhav		1(3)	-----
Ms. V.V. Khanvilkar	1(3) +1(5)	-----	-----
Ms. V. N. Garge		----	1(3)
Mr. S. R. Nikam	2(3)		
Mr. Abhay Shirode	1(5)		
Sum	16	6	8
RF = Number of Faculty required to comply with 15:1 Student-Faculty ratio as per 5.1	22	22	22
Assessment = $3 \times \text{Sum} / (0.5 \text{ RF})$	4.36	1.64	2.18



## 5.7. Research and Development (40)

### 5.7.1 Academic Research (10)

Academic research includes research paper publications, Ph.D. guidance, and faculty receiving Ph.D. during the assessment period.

#### Number of quality publications in refereed/SCI Journals, citations, Books/Book Chapters etc. (6)

Sr. no	Faculty	Publication details		Citation details			
		Total no. of publications till date	No. of publications assessment period (2014-17)	Total no. of citations till date		No. of citations for assessment period (2014-17)	
				Google scholar	Scopus	Google scholar	Scopus
1	Dr. Vilasrao J. Kadam	376	69	2070	1980	1227	1062
2	Dr. C. S. Ramaa	33	09	359	236	225	81
3	Dr. K. R. Jadhav	57	19	818	437	392	206
4	Dr. V. M. Jadhav	66	12	534	177	312	90
5	Dr. M. P. Toraskar	22	08	165	79	82	36
6	Ms. V. V. Khanvilkar	38	09	115	19	05	11
7	Ms. M. S. Karpe	31	21	105	21	83	17
8	Dr. A. P. Jadhav	41	14	138	41	110	27
9	Ms. D. M. Jagdale	27	12	107	26	69	17
10	Dr. S. P. Patankar	04	02	01	15	01	10
11	Dr. S. D. Patil	10	05	17	04	09	02
12	Ms. S. R. Dhande	34	26	39	01	07	01
13	Dr. S. J. Mundada	08	04	66	27	39	17
14	Ms. V. N. Garge	18	17	01	00	01	00
15	Mr. S. R. Nikam	04	02	07	17	01	03
16	Mr. D. S. Nikam	06	01	56	22	02	00
17	Dr. Neha Dand	17	05	173	74	106	47
18	Dr. Rhea Mohan	08	00	89	00	69	00
19	Mr. N. K. Waghmare	04	03	20	00	13	00
20	Mr. A. R. Shirode	23	09	193	79	113	40
21	Mr. V. M. Patil	04	04	70	00	47	00
22	Mrs. P. U. Pherwani	03	02	16	05	00	00
23	Dr. M. P. Patnaik	18	07	05	02	03	04

**Ph.D. guided /Ph.D. awarded during the assessment period while working in the institute (4)**

**Ph.D. guided:**

Name of the Faculty	Number of students /Faculty		
	2016-17	2015-16	2014-15
Dr.Vilasrao J. Kadam	-	2	2
Dr. C. S. Ramaa	1	4	6
Dr. K. R. Jadhav	1	2	2
Dr.(Mrs). Mrunmayee P. Toraskar	-	1	1

**Ph.D. awarded during the assessment period while working in the institute**

Name of the Faculty	PhD awarded Year
Ms. Shrutika D. Patil	2016-17
Ms. Sneha Mundada Agrawal	2016-17

**5.7.2 Sponsored Research**

**(10)**

**Funded research**

(Provide a list with Project Title, Funding Agency, Amount and Duration) Funding amount (Cumulative during assessment years):

Amount > 25 Lacs– 10 Marks

Amount >= 22 Lacs and <= 25 lacs– 9 Marks

Amount >= 19 Lacs and < 22 lacs– 8 Marks

Amount >= 16 Lacs and < 19 lacs– 7 Marks

Amount >= 13 Lacs and < 16 lacs– 6 Mark

Amount >= 10 Lacs and < 13 lacs– 5 Marks

Amount >= 08 Lacs and < 10 lacs– 4 Mark

Amount >= 06 Lacs and < 08 lacs– 3 Mark

Amount >= 05 Lacs and < 06 lacs– 2 Marks

Amount >= 04 Lacs and < 05 lacs– 1 Mark

Amount <= 4 Lacs– 0 Mark

**Academic year 2016-17**

Sr No	Project title	Funding Agency	Amount in Rs	Duration Years
1	Development of novel Thiazolidinediones (tzds) with anti-leukemic potential	Department of Science and Technology and Polish Ministry of Scientific Research	21,98,000	Two years
2	Pre-clinical evaluation of cardio protective activity of <i>Ahogeissuslatifolia</i>	University of Mumbai	25,000	One year
3	Design, characterization of a novel nanostructured drug delivery system of Ziprusidone Hydrochloride monohydrate and Development of	University of Mumbai	25,000	One year

	chromatographic assay method for estimation of Ziprasidone Hydrochloride monohydrate			
4	Synthesis and evaluation of novel chemical entities as Anti pancreatic cancer	University of Mumbai	25,000	One year
5	Formulation and evaluation of multiparticulate drug delivery system	University of Mumbai	25,000	One year
6	Study in synthesis of potential therapeutic agents	University of Mumbai	30,000	One year
	Total		23,28,000	

#### Academic year 2015-16

Sr. No	Project title	Funding Agency	Amount in Rs	Duration
1	Design and evaluation of herbal dosage form	University of Mumbai	20,000	One Year
2	Enhancement of oral bioavailability of BCS class II drugs	University of Mumbai	20,000	One Year
3	Studies on herb-drug interactions with Indian medicinal plant	University of Mumbai	25,000	One Year
4	Development of lubricious coating material for medical devices	Abbess Healthcare OPC Pvt. Ltd.	3,00,000	One Year
5	Effervescent formulation of a laxative product for Europe	Abbess Healthcare OPC Pvt. Ltd.	15,00,000	One Year
6	Formulation and development of herbal extracts	Abbess Healthcare OPC Pvt. Ltd.	2,00,000	One year
7	Physicochemical evaluation of some novel pharmaceutical excipients	Abbess Healthcare OPC Pvt. Ltd.	4,00,000	One Year
	Total		24,65,000	

#### Academic Year 2014-15

Sr No	Project title	Funding Agency	Amount in Rs	Duration
1	To develop a ready to use coating material for medical devices For Surgimedik Healthcare India Pvt. Ltd.	Abbess Healthcare OPC Pvt. Ltd.	15,000	One Year
2	Design and development of spray dried nan spheres of Metformin Hydrochloride	University of Mumbai	35,000	One Year
3	Synthesis and antidiabetic evaluation of novel glucosidic compounds	University of Mumbai	32,000	One Year
4	Evaluation of polyherbal preparation	University of Mumbai	28,000	One Year
5	Formulation and evaluation of novel	University of Mumbai	28,000	One Year

	topical lipid nanoparticle based system			
<b>6</b>	Design, synthesis and biological evaluation of heterocyclic compounds as potential antiangiogenic agents	University of Mumbai	32,000	One Year
<b>7</b>	To evaluate potential anti-cancer activity of herb	University of Mumbai	28,000	One Year
<b>8</b>	Study of herb drug interaction	University of Mumbai	32,000	One Year
<b>9</b>	Synthesis and evaluation of novel Malonyl CoA decarboxylase inhibitors	University of Mumbai	35,000	One Year
<b>10</b>	Synthesis and evaluation of novel chemical entities as anti-breast cancer agent	University of Mumbai	30,000	One Year
<b>11</b>	Design and homology modelling of potential bioactive compounds as CYP450 inhibitors and human carbonic anhydrase inhibitor	AICTE	2,62,021	Three years
<b>12</b>	In-silico mechanistic study, synthesis and biological evaluation of a series of novel Thiazolidinediones as anti-cancer agents	BRNS	11,82,869	Three years
<b>13</b>	To develop a ready to use coating material for medical devices For Surgimedik Healthcare India Pvt. Ltd.	Abbess Healthcare OPC Pvt. Ltd.	1,50,000	One year
<b>Total</b>			<b>18, 89, 890</b>	

### 5.7.3 Consultancy (From Industry)

(10)

*Providing list with Project Title, Funding Agency, Amount and Duration.*

*(Provide a list with Project Title, Funding Agency, Amount and Duration) Funding Amount (Cumulative during assessment years):*

*Amount > 25 Lacs– 10 Marks*

*Amount >= 22 Lacs and <= 25 lacs– 9 Marks*

*Amount >= 19 Lacs and < 22 lacs– 8 Marks*

*Amount >= 16 Lacs and < 19 lacs– 7 Marks*

*Amount >= 13 Lacs and < 16 lacs– 6 Mark*

*Amount >= 10 Lacs and < 13 lacs– 5 Marks*

*Amount >= 08 Lacs and < 10 lacs– 4 Mark*

*Amount >= 06 Lacs and < 08 lacs– 3 Mark*

*Amount >= 05 Lacs and < 06 lacs– 2 Marks*

*Amount >= 04 Lacs and < 05 lacs– 1 Mark*

*Amount <= 4 Lacs– 0 Mark*

### 5.7.4 Honorary Consultancy from Central/ State/ Local Government Organization

(5)

NIL

### 5.7.5 Developmental Activities

(5)

*Provide details:*

- *Product Development*
- *Research laboratories*
- *Instructional materials*
- *Working models/charts/monograms etc.*

Our College always emphasizes on the continuous development of the students and the faculty members. The faculty members are continuously engaged in research activities supported by various funding agencies. College research activities are well supported by the state of the art central instrument room. Every year new instruments are purchased and the laboratories are continuously upgraded to support academic research. Recently one laboratory has been converted into a Research Laboratory i.e. Bharati Vidyapeeth Research Centre. This laboratory is well equipped with advanced analytical facilities which are available for students and faculty members. Instruments available in all the laboratories are provided with Standard Operating Procedures. The students are provided with printed journals which are used by them as easy instruction materials. Informative charts prepared by the students under the guidance of teaching staff members are displayed in the laboratories to assist them in understanding and remembering the concepts. Students of our college actively participate in various social awareness Programs. They are involved in the preparation of pamphlets which are distributed in the society for health awareness. As a part of the social contribution, students are engaged in the preparation of generic drug charts which are made available to the medical stores.

### 5.8 Faculty Performance Appraisal and Development System (FPADS)

(20)

*Faculties of Higher Education Institutions today have to perform a variety of tasks pertaining to diverse roles. In addition to instruction, Faculty needs to innovate and conduct research for their self-renewal, keep abreast with changes in technology, develop expertise for the effective implementation of curricula. They are also expected to provide services to the hospitals/ industry and community in large for understanding and contributing to the solution of real life problems. Another role relates to the shouldering of administrative responsibilities to co-operation with other Faculty, heads-of-departments and the Head of Institute. An effective performance appraisal system for Faculty is vital for optimizing the contribution of individual Faculty to*

*institutional performance*

*The assessment is based on*

- ☐ *A well-defined system instituted for all the assessment years*
- ☐ *Its implementation and effectiveness*

Performance based Self-Appraisal takes into account a 360 degree evaluation. The faculty is assessed annually by the Self-Appraisal method, Peer Evaluation and a robust Student Feedback System. The analysis is done based on the following parameters: Results, number of seminars, conferences and QIPs attended, contribution to the college and community, books, papers and patents published, grants received and special awards, consultancy work; student feedback is however, given top priority and this is duly communicated at personal level by the Principal to the teacher. A teacher who secures 100% results in his/her subject is motivated by being presented with a Certificate of Appreciation.

The “Best Teacher” award has also been instituted wherein a teacher receives a certificate and memento during the annual function at the hands of the Chief Guest. The college also encourages Faculty Self-Development through upgrading education by offering full support in terms of facilities provided. Faculty participation in continuing education programs, various national and international conferences, sponsored registration and workshops is encouraged. This appraisal system has given way for further enhancement and up-gradation of their skills and knowledge.

### 5.9 Visiting / Adjunct faculty

(5)

*Adjunct faculty also includes experts from Industry, Research Organizations/Universities and other Government Organizations. Provide details of participation and contributions in teaching and learning and /or research by visiting/adjunct faculty for all the assessment years.*

- ☐ *Provision of visiting/adjunct faculty (1)*
- ☐ *Minimum 50 hours interaction in a year will result in 1 mark for that year; 1 marks x 4 years = 4 marks.*

Assessment Year : 2016-2017				
Class	Semester	Subject	Name of Visiting Faculty	No. of Interactions
F. Y. B. Pharm	I	Environmental Sciences	Ms. Varsha Chalke	35
		Communication Skill	Ms. Pratibha Deshmukh	20
		Computer Lab	Ms. Nishat Haveri	28
S.Y. B. Pharm	III	Mathematics	Mr. A. B. Pawar	53
	IV	Mathematics and Statistics	Mr. A. B. Pawar	49
Total				185
Assessment Year : 2015-2016				
Class	Semester	Subject	Name of Visiting Faculty	No of Interactions
F. Y. B. Pharm	I	Environmental Sciences	Ms. Varsha Chalke	26
		Communication	Mrs. Ritu Goswami	20

		Skills		
		Computer Lab	Ms. Nishat Haveri	38
S. Y. B. Pharm	III	Mathematics	Mr. A. B. Pawar	50
	IV	Mathematics and Statistics	Mr. A. B. Pawar	48
Total				179
Assessment Year: 2014-2015				
Class	Semester	Subject	Name of Visiting Faculty	No of Interactions
F. Y. B. Pharm	I	Environmental Sciences	Ms. Varsha Chalke	30
		Communication Skills	Mrs. Ritu Goswami	24
		Computer Lab	Ms. Nishat Haveri	40
S. Y. B. Pharm	III	Mathematics	Mr. A. B. Pawar	45
	IV	Mathematics and Statistics	Mr. A. B. Pawar	46
Total				185

**Criterion 6 Facilities and Technical Support 120**

**6. Facilities (120)**

**6.1. Availability of adequate, well-equipped classrooms to meet the curriculum requirements (15)**

*(Facilities for conducting theory classes)*

The college has:

- Sufficient class rooms for conducting lectures and tutorials for the first to final year students
- Class rooms with good ventilation, air conditioning, LCD, podium and uninterrupted power supply.
- Sufficient tutorial rooms to conduct tutorial and remedial classes for students having backlogs.
- A seminar hall with a capacity of 160 to conduct seminars, guest lectures and workshops.
- Teaching aids – white boards, OHP multimedia projectors, etc.

**6.2. Faculty rooms (5)**

*(Availability of other facilities)*

**Availability of faculty rooms**

Adequate rooms and cabins are available to accommodate faculty members.

- Faculty members have been provided with laptop and internet facility.
- The staff room and staff cabins are well furnished.

**6.3. Laboratories including preparation room (wherever applicable), instrument/machine room and computer labs along with equipment and relevant facilities (40)**

*(Scientific Experiments Conducting/Computing facilities; availability, adequacy & effectiveness)*

Room No.	Lab Description in the Curriculum	Batch size	Availability of lab manuals	Quality of Instruments	Safety measure/s
006	Pharmaceutical Chemistry	20	Yes	State of the Art	Fume cupboard First aid kits Safety goggles Shower Fire extinguisher
008	Pharmacognosy and Phytochemistry	20	Yes	State of the Art	Fire extinguisher First aid kits
009	Pharmaceutical	20	Yes	State of the	Fire extinguisher



	Analysis			Art	First aid kits
<b>003</b>	Machine Room	20	Yes	State of the Art	Fire extinguisher First aid kits
<b>014</b>	Pharmaceutics	20	Yes	State of the Art	Fire extinguisher First aid kits
<b>015</b>	Anatomy & Physiology	20	Yes	State of the Art	Fire extinguisher First aid kits
<b>102</b>	Physical Pharmacy	20	Yes	State of the Art	Fire extinguisher First aid kits
<b>103</b>	Dispensing Pharmacy	20	Yes	State of the Art	Fire extinguisher First aid kits
<b>104</b>	Pharmacology	20	Yes	State of the Art	Fire extinguisher First aid kits
<b>107</b>	Computer lab	20	Yes	State of the Art	Fire extinguisher
<b>108</b>	Instrument room	20	Yes	State of the Art	Fire extinguisher
<b>110</b>	Microbiology lab	20	Yes	State of the Art	Fire extinguisher First aid kits

### Instrument Room

Sr. No.	Instrument/Equipment	Make and model	SOP	Log book
<b>1.</b>	Dissolution test apparatus - Six station with auto-sampler	DS 8000, Labindia	Yes	Yes
<b>2.</b>	HPLC quaternary gradient with auto-sampler	Agilent Technologies, 1200 series	Yes	Yes
<b>3.</b>	Binary HPLC	Jasco, 2000 plus series	Yes	Yes
<b>4.</b>	HPTLC with TLC scanner 3 and sample applicator-LINOMAT 5	Camag	Yes	Yes
<b>5.</b>	Nitrogen Evaporator	Speedovap (MV 20111001)	Yes	Yes
<b>6.</b>	UV Visible spectrophotometer	Jasco, V 630	Yes	Yes
<b>7.</b>	UV Visible spectrophotometer	UV 3000, Labindia	Yes	Yes
<b>8.</b>	Gas Chromatography	GC-14-BPF, Shimadzu	Yes	Yes
<b>9.</b>	High speed cooling centrifuge machine	Remi	Yes	Yes
<b>10.</b>	Differential scanning calorimeter	DSC 620, SII Nano Technology	Yes	Yes

11.	FTIR spectrophotometer with ATR Accessory	8400S-CE, Shimadzu	Yes	Yes
12.	Biochemistry auto analyser	Transania	Yes	Yes
13.	Particle size analyser	Nanophox, Sympatech	Yes	Yes
14.	UV Visible spectrophotometer	UV 1800, Shimadzu	Yes	Yes
15.	HPLC with auto-sampler	Thermo Scientific, (P4000/AS300/UV6000LP)	Yes	Yes
16.	Flash Chromatography system	Smart Flash, Akros, RE-X10, Yamazen	Yes	Yes
17.	Water purifying system	Elga, Purelab Flex	Yes	No
18.	HPLC with auto-sampler	Shimadzu (Asia Pacific) 228 -45000- 48 LC -20AD 230V	Yes	Yes

### Machine room

Sr. No.	Instrument/Equipment	Make and model	SOP	Log book
1.	Coating pan	Naomi	Yes	Yes
2.	Spray gun with air compressor ¼ H.P.	Pilot Type 64-M and United Compressor corporation U234	Yes	Yes
3.	Two humidity control oven	Neutronic, NEC 210R10 NEC-210-R10	Yes	Yes
4.	Mini press 10 station tablet press machine	Rimek Mini press-I	Yes	Yes
5.	Horizontal main drive with the following attachments: Dry granulator Wet granulator Sieve shaker Double cone blender	Kevin (MDI -2101P)	Yes	Yes
6.	High speed homogeniser	Model : SP- Lab Cap- 50 LPH	Yes	Yes
7.	Freeze dryer	Alpha1-2 LD Plus, Martin Christ	Yes	Yes
8.	BOD incubator conversion of humidity control oven to BOD incubator (1)	Eden technology solution	Yes	Yes
9.	Spray dryer	LSD-40, JISL	Yes	Yes
10.	Extruder	LAB SIZE SSES-55,	Yes	Yes

	Naomi		
11. Spheroniser	LAB-SPH-125, Naomi	Yes	Yes
12. Moisture analyser	CB-50, Contech	Yes	Yes
13. Ultrasonicator	Remi	Yes	Yes
14. Probe sonicator	Oscar electronics	Yes	Yes
15. High pressure homogenizer	Vino technical services	Yes	Yes
16. High pressure homogeniser	Panda PLUS, GEA Niro Soavi	Yes	Yes
17. Pouch sealing	A TO Z PACK SEAL, Amar Packaging	Yes	Yes
18. Hardness tester	20Kg-CM-15, Dolphin	Yes	Yes
19. Desidry Desiccant Dehumidifier	DIS 470 CFM, Duex	No	No

*Note: Give a separate table for Instrument room and Machine room listing all the instruments/equipment present with their make and model, existence of SOPs and Log Books for individual equipment.*

#### 6.4. Drug Museum

(20)

*(Type & quality of collection in the museum with proper labelling and display)*

The college has well-established and well-maintained museums. One museum is composed of marketed formulations which have been broadly classified as medicated and cosmetic formulations. The second museum is for the display of drugs from a variety of origins and the third museum is dedicated to the display of common laboratory equipments used in the field of pharmacy. In addition to this, various informative charts pertaining to the history of pharmacy, sources of drugs and other information pertaining to drugs have been put up in well-lit cases in prominent places in the college. The total area dedicated to these museums is approximately 575 sq. ft.

#### 6.5 Medicinal Plant Garden

(20)

*(Area, demarcation, temporary/permanent arrangement, planting of plants under the shade in demarcated areas, adequacy of the plants)*

**Area:** The area of the medicinal plant garden is 100 sq. m. in which various medicinal plants are maintained. (In addition to this, medicinal plants are also planted in campus area)

**Demarcation:** Adjacent to xerography centre

**Arrangement:** Permanent

**Adequacy of the plants:** Adequate

**6.5.1. Types, varieties and number of plants, available in the garden (15)**

Sr. No.	English name	Botanical name	Family	Use
1.	Ashoka	<i>Saraca indica</i> (bark)	Fabaceae	Uterine tonic
2.	Vasaka	<i>Adhatoda vasica</i> (leaves)	Acanthaceae	Bronchodilator
3.	Aloe	<i>Aloe barbadensis</i> (leaves)	Liliaceae	Purgative
4.	Shameplant	<i>Mimosa pudica</i> (root)	Fabaceae	Astringent
5.	Hydrocotyle	<i>Centella asiatica</i> (leaves)	Umbelliferae	Nerve tonic
6.	Java plum	<i>Syzygium cumini</i> (fruit, seed)	Myrtaceae	Antidiabetic
7.	Curry tree	<i>Murraya koenigii</i> (leaves)	Rutaceae	Anti-diabetic, Anti-microbial, Anti-inflammatory
8.	Asparagus	<i>Asparagus racemosus</i> (root)	Liliaceae	For treatment of habitual abortion
9.	Hibiscus	<i>Hibiscus rosa-sinesis</i> (flowers, leaves)	Malvaceae	Hair care
10.	Neem	<i>Azadirachta indica</i> (seed)	Meliaceae	Antiviral activity
11.	Karnikara tree	<i>Pterospermum acerifolium</i> (flower)	Sterculiaceae	Tonic
12.	Golden rain tree	<i>Cassia fistula</i> (Bark, leaves)	Fabaceae	Anti-inflammatory
13.	Tamarind	<i>Tamarindus indica</i> (fruit)	Fabaceae	Laxative
14.	Indian Gooseberry	<i>Emblica officinalis</i> (fruit)	Euphorbiaceae	Refrigerant, Vit 'C' supplement Diuretic
15.	Air plant	<i>Bryophyllum pinnatum</i> (leaves)	Crassulaceae	Anti-inflammatory
16.	Mango	<i>Mangifera indica</i> (fruit and leaves)	Anacardiaceae	Fruit as source of vitamins, leaves antidiabetic
17.	Almond	<i>Prunus amygdalus</i> (fruit)	Rosaceae	Vit' E' supplement
18.	Datura	<i>Datura stramonium</i> (leaves, fruit)	Solanaceae	Anticholinergic
19.	Country Gooseberry	<i>Phyllanthus niruri</i> (entire herb)	Phyllanthaceae	Urinary calculi

20.	Eucalyptus	<i>Eucalyptus globulus</i> (leaves)	Myrtaceae	Antiseptic
21.	Marsh mint	<i>Mentha piperita</i> (entire plant)	Lamiaceae	Antibacterial
22.	Lemongrass	<i>Cymbopogon flexuosus</i> (leaves)	Graminae	Flavouring agent
23.	Custard apple	<i>Annona squamosa</i> (fruit)	Annonaceae	Antioxidant
24.	Lemon	<i>Citrus lemon</i> (fruit)	Rutaceae	Vit 'C' supplement
25.	Guava	<i>Psidium guajava</i> (fruit)	Myrtaceae	Diarrhoea, dysentery
26.	Betel	<i>Piper betel</i> (leaves)	Piperaceae	Stimulant, antiseptic & breath-freshner
27.	Nerium	<i>Nerium indicum</i>	Apocynaceae	Cardiotonic
28.	Withania	<i>Withania somnifera</i>	Solanaceae	Immunomodulator
29.	Black pepper	<i>Piper nigrum</i>	Piperaceae	Appetizer, Anti-flatulent
30.	Chili pepper	<i>Capsicum frutescens</i>	Solanaceae	Counter Irritant, culinary

#### 6.5.2. Overall look and maintenance of the medicinal plant garden (5)

The Medicinal Plant garden is well maintained regularly watered and fertilizers are used as per the need at suitable intervals. All the different varieties of plants are suitably labelled.

#### 6.6 Non-Teaching Support (20)

Name of Technical Staff	Designation	Date of Joining	Qualification		Other technical skills gained	Responsibility
			At joining	Now		
Ulhas Pawar	Laboratory Assistant (Pharmacology Laboratory)	01/06/06	Diploma in Pharmacy	Diploma in Pharmacy	Diploma in Information Technology	1.Preparation of required reagents. 2.Maintenance of equipments and instruments. 3.Maintain stock registers. 4.Keep the lab neat and clean.

Ravindra Shinde	Laboratory Assistant (Pharmacognosy Laboratory)	22/03/10	Diploma in Pharmacy	Diploma in Pharmacy	MSCIT	1.Preparation of required reagents. 2.Maintenance of equipments and instruments. 3.Maintain herbarium and stock registers. 4.Keep the lab neat and clean.
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#### 6.6.1. Availability of adequate and qualified technical supporting staff for Program specific laboratories (10)

(Assessment based on the information provided in the preceding table)

For fulfilment of the above criteria college has sufficient technical staff as per Pharmacy Council of India norms.

#### 6.6.2. Incentives, skill upgrade, and professional advancement (10)

(Assessment based on the information provided in the preceding table)

For skill upgradation and professional advancement of the Non- Teaching staff, the college conducted various seminars, demonstrations and training sessions as follows:

Year	Date	Title
2016-17	13/4/2017	Workshop on "Laboratory Safety".
	3/2/2017	Workshop on "Using self-techniques for dealing with stress".
	4/1/2017	One day training on "Safety measures and fire- fighting".
2015-16	13/1/2016	Seminar on "English communication skill development".
	16/12/2015	Seminar and workshop on "Service etiquettes".
	15/7/2015	Demonstration and training for "Handling of various analytical instruments such as colorimeter, pH meter, fluorimeter, U.V.

		spectrophotometer etc”.
<b>2014-15</b>	13/12/2014	Demonstration and training for “Laboratory reagents preparations”.
	19/8/2014	Demonstration and training for “Powder blending, double rotary tablet punching machine and coating pan machines”.
	14/7/2014	Demonstration and training for “Animal handling and various tissue preparation required in pharmacology laboratory”.
	07/2/2014	Demonstration and training for “Handling and maintenance of microscopes”.

**Criterion 7**

**Continuous Improvement**

**75**

**7.1. Improvement in Success Index of Students without the backlog (15)**

Items	LYG (2016-17)	LYGm1 (2015-16)	LYGm2 (2014-15)
Success Index(SI) (from 4.2.1)	0.30	0.27	0.47

*SI= (Number of students who graduated from the Program without backlog)/(Number of students admitted in the first year of that batch and admitted in 2nd year via lateral entry)*

*Assessment shall be based on improvement trends in success indices. Marks are awarded accordingly.*

**7.2. Improvement in Placement and Higher Studies (15)**

*Assessment is based on improvement in:*

- ☐ *Placement: number, quality placement, core industry, pay packages etc.*
- ☐ *Higher studies: performance in GPAT etc., and admissions in premier institutions*

The college Training and Placement Cell is taking persistent efforts in the continuous improvement of the placement of the students. This is reflected by increase in number of pharmaceutical industries visiting and facilitating campus placement. Along with the number of companies contacted, the Placement Cell is also striving to have quality placement by inviting and coordinating with multinational industries such as Abbott, GSK, Roche Diagnostics, Cognizant etc. and leading Indian pharmaceutical companies such as Glenmark, Alkem, Quintiles, Flamingo, Cipla and TCS. Also considerable improvement is seen in the average pay packages offered to the students over past few years. The Placement Cell also facilitates pooled campus placement drives for other colleges from University of Mumbai.

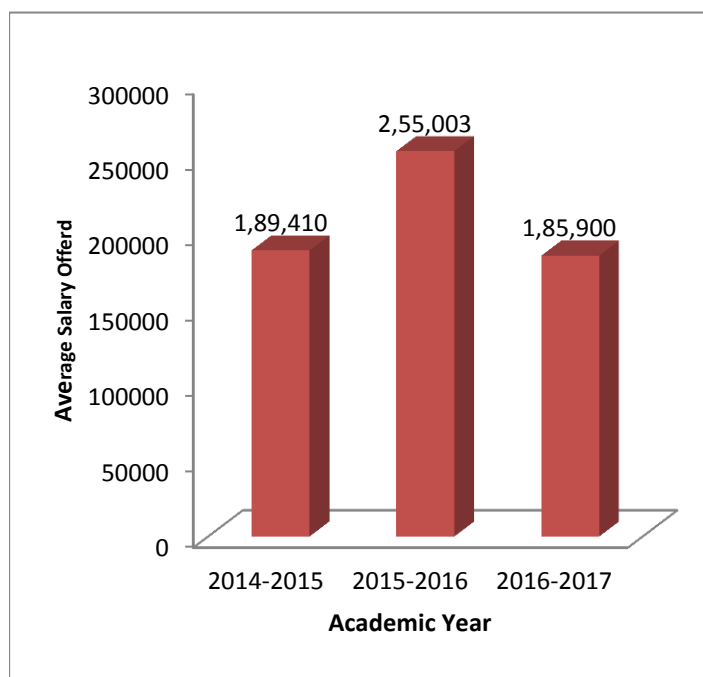
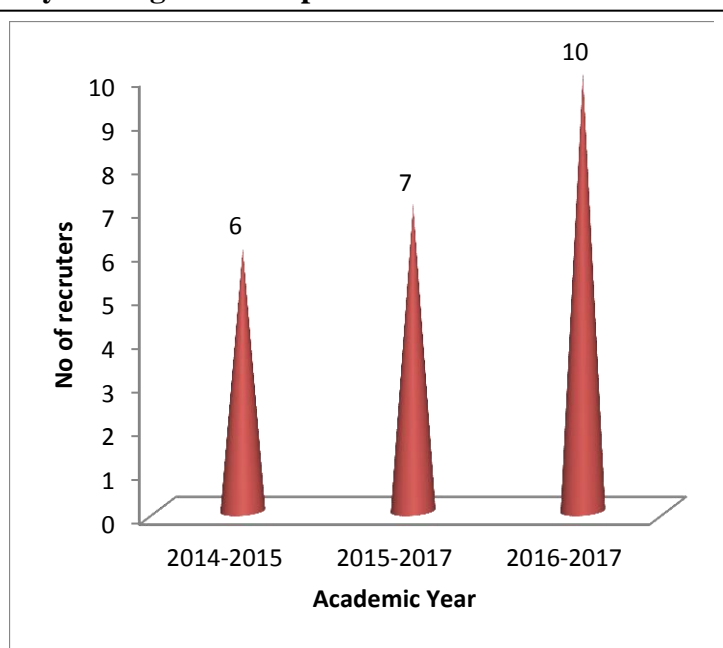
College organizes guest lectures for understanding the importance of various postgraduate courses such as M. Pharm, M.B.A., M. S. etc. Every year nearly 50% of final year students appear for entrance exam. of M. Pharmacy, i.e. GPAT. Many of our students are admitted in premier institutes such as NIPER, Bombay College of Pharmacy, BITS etc.

Year	GPAT	No. of Students Qualified in GPAT	No. of Students opted for higher studies
<b>2016-17</b>	GPAT2017	11	7
<b>2015-16</b>	GPAT2016	8	14
<b>2014-15</b>	GPAT2015	10	25



### Some of Our Major Recruiters and Average Pay Packages of Campus Placement

Academic Year	Name of Major Recruiting Companies
<b>2016-2017</b>	1. Abbott Healthcare, India
	2. Quintiles Research India Pvt. Ltd
	3. Biosphere Clinical Research Pvt. Ltd
	4. Sydlar Remedies Pvt. Ltd
	5. Meyer Organics Pvt. Ltd
	6. Somatico Pharmacal Pvt. Ltd
	7. Abbess Healthcare OPC Pvt. Ltd.
	8. Sutherland Global Services
	9. Cognizant Technology Solutions
	10. Apollo Hospitals
<b>2015-16</b>	1. Quintiles Research India Pvt. Ltd.
	2. Abbess Healthcare OPC Pvt. Ltd.
	3. Alkem Laboratories Ltd
	4. Glenmark Pharmaceuticals Ltd.
	5. Roche Diagnostics India Pvt. Ltd.
	6. Accenture
	7. Abbot Healthcare, India
<b>2014-15</b>	1. Cognizant Technology Solutions
	2. Flamingo Pharmaceuticals
	3. Abbott Healthcare, India
	4. Glaxo Smith Kline
	5. Cipla
	6. TCS



Items	LYG(2016-17)	LYG(2015-16)	LYGm1(2014-15)
Placement Index(from 4.7)	0.48	0.71	0.75

### 7.3. Improvement in the API of the Final Year Students

(10)

Academic Performance= Average API

Academic Performance Index = ((Mean of Final year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Final Year/10)) X (successful students / number of students appeared in the examination)

Successful students are those who passed in all the final year courses

Academic Performance	LYG (2016-17)	LYGm1 (2015-16)	LYGm2 (2014-15)
Mean of CGPA or mean percentage of all successful students/10 (X)	7.03	7.08	5.34
Total no. of successful students (Y)	40	39	59
Total no. of students appeared in the examination (Z)	57	53	70
API= X * (Y/Z)	4.94	5.21	4.50
Average API= (AP1+AP2+AP3)/3		4.88	
Academic performance = Average API = (AP1+AP2+AP3)/3		4.88	

### 7.4. Improvement in the quality of students admitted to the Program

(15)

The assessment is based on improvement in terms of ranks/score in qualifying state level/national level entrances tests, percentage marks in Physics, Chemistry and Mathematics in 12<sup>th</sup> Standard and percentage marks of the lateral entry students.

ITEM		CAY(2016-2017)	CAY(2015-2016)	CAY m1(2014-2015)
National level entrance examination	No of students admitted	NA	NA	NA
	Opening Score/Rank	-	-	-
	Closing Score/Rank	-	-	-
State/ University/ Level Entrance Examinations/Others (MH-CET)	No of students admitted	60	60	59
	Opening Score/Rank	166	166	150
	Closing Score/Rank	50	70	48

Name of Entrance Examinations For lateral Entry or Lateral entry details (Diploma Examination)	No of students admitted	17	24	24
	Opening Score/Rank	87.30 %	83.60 %	86.30 %
	Closing Score/Rank	50.00 %	54.30 %	52.70 %
Average CBSC or Any other Board Result of Admitted Students (Physics, Chemistry, Biology, Maths (First year B. Pharm	Total average PCB 56	200	Total average PCB 51	Total average PCB 48
	PCM 04	194	184	PCM 11
			PCM 09	186
			200	
Average CBSC or Any other Board Result of Admitted Students Lateral Entry (MSBTE)	75.70		67.90	66.50

## 7.5. Actions taken based on the results of evaluation of each of the POs (20)

Identify the areas of weaknesses in the Program based on the analysis of evaluation of POs attainment levels. Measures identified and implemented to improve POs attainment levels for the assessment years. Actions to be written as per table in 3.3.2.

### Examples of analysis and proposed action

**Sample 1-**Course outcomes for a laboratory course in Pharmaceutical analysis did not measure up, as some of the laboratory instruments are not calibrated, standardized and not optimally used, as there was no laboratory work involving the use of HPLC and UV-visible spectrophotometer.

Action taken-The practical work in Pharmaceutical analysis has been upgraded by inclusion of analytical experiments involving the use of HPLC and UV-visible spectrophotometer with the help of SOPs generated.

**Sample 2-**In a course on Pharmaceutics theory, student performance has been consistently low with respect to some COs as analysis of answer scripts and discussions with the students revealed that this could be attributed to a weaker course and its delivery on GMP, GLP and Drug Regulatory Affairs.

Action taken-The theory course in Pharmaceutics and its delivery has been strengthened by including specific topics on quality control and quality assurance taught by experts drawn from Industry, Academia and Drug Regulatory Authorities.

**Sample 3-**In a course of Bio-pharmaceutics theory and practicals, the students' performance has been low with respect to attainment of some COs as it was revealed that theory and practical component in physical pharmacy is weak and contributed to poor basic concepts and their applications in higher classes.

Action taken- Extra classes were arranged for the students on the emphasis of the basic concepts in physico-chemical properties like PKA, Partition Coefficient, Biopharmaceutical Classification System(BCS) and other terms.

## POs Attainment Levels and Actions for improvement

- Level 3 – High –  $\geq 90\%$  of the set attainment level
- Level 2 – Medium – 80 – 89.99% of the set attainment level
- Level 1 – Low-  $\leq 79.99\%$  of the set attainment level

POs	Target Level	Attainment Level	Observations
PO1: <b>Pharmacy Knowledge:</b> Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioural, social, and administrative pharmacy sciences; and manufacturing practices.			
PO1	2.61	2.60	High
Action 1: Action N: -.			
PO2: <b>Planning Abilities:</b> Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.			
PO2	2.18	2.20	High
Action 1: Action N:			
PO3: <b>Problem analysis:</b> Utilize the principles of scientific enquiry, thinking analytically, clearly and critically, while solving problems and making decisions during daily practice. Find, analyse, evaluate and apply information systematically and shall make defensible decisions.			
PO3	2.19	2.21	High
Action 1: Action N:			
PO4: <b>Modern tool usage:</b> Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitations.			
PO4	2.01	2.00	High
Action 1: Action N:			
PO5: <b>Leadership skills:</b> Understand and consider the human reaction to change, motivation issues, leadership and team-building when planning changes required for fulfilment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and well-being.			
PO5	2.01	2.01	High
Action 1: Action N:			
PO6: <b>Professional Identity:</b> Understand, analyse and communicate the value of their professional roles in society (e.g. health care professionals, promoters of health, educators, managers, employers, employees).			
PO6:	1.94	1.93	High
Action 1: Action N:			
PO7: <b>Pharmaceutical Ethics:</b> Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behaviour that recognizes cultural and personal variability in values, communication and lifestyles. Use ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the			

decisions.			
PO7:	1.97	1.93	Medium
C202 In the course on Biochemistry-I theory, student performance has been low with respect to attainment of some COs as analysis of answers revealed that, it affects due to the variabilities in cultural and personal values, communication and lifestyle <b>Action:</b> Oral presentations and assignments will be conducted on major topics of Biochemistry I contributing to understand importance of professional ethics.			
C401 In the course of OC-II, the attainment for PO7 which is 'Pharmaceutical ethics' was less, as it deals with applying ethical principles while making decisions, students must be given extra practice for solving problems where decisions must be made. <b>Action:</b> Extra lectures will be conducted to give emphasis on the energy profile diagram and different conformations. The students will be asked to solve the related problems where they learn to make the decisions.			
C503 In the course of Biotechnology C503 Students performance has been low with respect to attainment of some COs as it was revealed that the theory component was weak with respect to Basic concepts and their applications. <b>Action:</b> In order to improve basics extra classes will be conducted			
C603 In the course of Pharmaceutics III, the attainment of PO7 has not matched up to the set target as analysis of answer sheets and discussion with the students revealed that this could be attributed to weaker delivery of GMP, GLP and Schedule M. <b>Action:</b> More focus would be given to the importance of pharmaceutical ethics during manufacturing by a more extensive coverage of the aforementioned topics. Also the aspects of quality assurance and quality control would be discussed in greater depths.			
C605 In the course of Hospital pharmacy and drug store management theory, student performance has been low with respect to attainment of some COs as analysis of answer scripts and discussions with the students revealed that, theory component in this subject is theoretical and contributed to management concepts and their applications in PO attainment. <b>Action 1:</b> Assignment will be conducted for the major topics of Hospital pharmacy and drug store management <b>Action 2:</b> Revision of difficult topics that are related to understand importance of application of ethical principles in professional context. <b>Action 3:</b> Oral presentation will be conducted on the practice of ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.			
C706 In the course of Pharmaceutical Jurisprudence theory, student performance has been low with respect to attainment of some COs as analysis of answer scripts and discussions with the students revealed that, theory component in this subject is inert , contributed to legal language which found difficult to understand and recollect basic concepts and their applications in PO attainment. <b>Action 1:</b> Assignment will be conducted for the major topics of Pharmaceutical Jurisprudence. <b>Action 2:</b> Revision of difficult topics that are related to understand importance of application of ethical principles in professional context. <b>Action 3:</b> Oral presentation will be conducted on the practice of ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.			
C803 In the course of Biopharmaceutics and Pharmacokinetics, the attained value for PO7 was lower than that mapped as the analysis of the quiz paper revealed that the students did not get enough practice to apply the knowledge gained during the course of their study <b>Action:</b> More practice would be given to the students by giving them small assignments wherein they would be make use of the theoretical knowledge and come up with practical solutions for the problems posed.			

PO8: <b>Communication:</b> Communicate effectively with the pharmacy community and with society at large, such as, being able to comprehend and write effective reports, make effective presentations and documentation, and give and receive clear instructions.			
PO8:	1.84	1.75	Medium
C108: In the course on Computer lab, student performance has been low with respect to attainment of some COs as analysis of answer scripts and discussions with the students revealed that, there is no theory component in this subject and contributed to poor basic concepts and their applications in PO attainment. <b>Action:</b> Students will be asked to write effective reports, make effective presentations and documentation addressing pharmaceutical industries.			
C204 In the course of physical pharmacy theory it was found that students were not able to communicate effectively the theoretical concepts wherever necessary in the form of conclusive reports or represent the data and giving it definite conclusion. It was also found that if an individual student has understood the concept they were not able to instruct it to others. <b>Action:</b> Students will be given extra assignments where they can co-relate and conclude the results effectively. They will be instructed to go through different text books related with subject and understand how effective representation of data can be done and also how the writers were able to clear instructions in order to understand the concept.			
C205 Some of the COs were not attained for this course. While discussing informally with the students, the reason for this was the students found understanding of the Nervous System to be tough. <b>Action:</b> The understanding will be enhanced by more diagrammatic explanation.			
C301 It was observed that the less attainment of the PO was due to lack of communication. The students were not able to express their answers in spite they understood the concept behind that. <b>Action:</b> Students will be told to solve problems related to nomenclature, acidity basicity etc, and they will be explaining the justification of their answers to the class.			
C302 In the course on Biochemistry-II theory, student performance has been low with respect to attainment of some COs as analysis of answers revealed that, it affects due to lack of communication. <b>Action:</b> Oral presentations and assignments will be conducted on major topics of Biochemistry-II			
C303 In the course of dispensing pharmacy theory, students were not able to communicate effectively as they were getting confused with labelling directions of different dosage forms. <b>Action:</b> Oral presentations and quizzes will be conducted to strengthen communication ability.			
C305 The reason for poor performance of this course was attributed to the not the students not having the time to complete reading the subject. <b>Action:</b> The students would be guided on how to do so.			
C401 In the course of OC-II, the PO8 was mapped to low level because of lack of communication. The students were unable to express themselves, even though they understood the concept. <b>Action:</b> Students will be asked to draw energy profile diagrams as many as possible and different conformations of simple organic molecules with their explanation in the class room.			
C405 The cause for poor performance of this course was the students had forgotten the Anatomy, Physiology and Pathophysiology taught in the previous Semesters, therefore couldn't understand the pharmacology. <b>Action:</b> The Anatomy, Physiology and Pathophysiology topics related to Pharmacology-I would be revised.			



<p>C504 In the course on Pharmacology-II theory, student performance has been low with respect to attainment of CO-8, as analysis of answer scripts and discussions with the students revealed that, theory component in this subject is weak and contributed to poor basic concepts and their applications in PO attainment.</p> <p><b>Action:</b> Oral presentation will be conducted on the topics such as chemotherapy of various bacterial, fungal and viral infections, treatment of malaria, cancer chemotherapy, pharmacotherapy of diabetes mellitus, thyroid disorders, osteoporosis and pharmacology of oxytocin and oral contraceptives.</p>			
<p>C601 In a course of Pharmaceutical Chemistry II theory, the students' performance has been low with respect to attainment of some COs which affects their conversation in technical language, dealing with societal issues.</p> <p><b>Action:</b> Students will be motivated to give presentations for the small topics and converse in technical language.</p>			
<p>C603 In the course of Pharmaceutics III, PO8 was mapped to a low level because the course was meant to allow the students to refer pharmacopoeias and make protocols thereby improving their professional communication. But the measures taken to inculcate so were not so effective.</p> <p><b>Action:</b> In order to match up this PO to the mapped level, individual students would be given a case study to solve and submit which would involve referring of pharmacopoeias and other scientific literature and then expressing their findings as a written report</p>			
<p>C605 In the course of Hospital pharmacy and drug store management theory, student performance has been low with respect to attainment of some COs as analysis of answer scripts and discussions with the students revealed that, theory component in this subject is theoretical and contributed to management concepts and their applications in PO attainment</p> <p><b>Action 1:</b> Oral presentation will be conducted on the benefits of documentation, following effective report making guidelines.</p> <p><b>Action 2:</b> Group activities will be conducted to develop personal as well as professional communication which contributes to give and receive clear instruction with community and society at large as practicing pharmacy profession.</p>			
<p>C706 In the course of Pharmaceutical Jurisprudence theory, student performance has been low with respect to attainment of some COs as analysis of answer scripts and discussions with the students revealed that, theory component in this subject is inert, contributed to legal language which found difficult to understand and recollect basic concepts and their applications in PO attainment.</p> <p><b>Action 1:</b> Oral presentation will be conducted on the benefits of documentation, following effective report making guidelines.</p> <p><b>Action 2:</b> Group activities will be conducted to develop personal as well as professional communication which contributes to give and receive clear instruction with community and society at large as practicing pharmacy profession.</p>			
<p><b>PO9: The Pharmacist and society:</b> Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional pharmacy practice.</p>			
PO9:	1.87	1.81	Medium
<p>C103 Some of the POS were not attained for this course. After questioning the students it was discovered the students did not have clear basic concepts which was expected.</p> <p><b>Action:</b> More time will be devoted to clarify the concepts.</p>			
<p>C202 In a course on Biochemistry – I theory, student performance has been low with respect to attainment of some COs as analysis of answer scripts and discussions with the students revealed that, theory component in this subject is weak and contributed to poor basic concepts and their applications in PO attainment.</p> <p><b>Action:</b> Charts will be prepared based on contextual knowledge of chemical structure, source, daily</p>			

recommended dose, biochemical use and adverse effect of all the biomolecules.
<p>C301 The students must have the knowledge of various functional groups such as alkane, alkene, etc. which form the basis of pharmacy and which are required for fulfilling the professional pharmacy practices.</p> <p><b>Action:</b> Extra classes will be arranged for extra practice for study of various functional groups.</p>
<p>C302 In a course on Biochemistry – II theory, student performance has been low with respect to attainment of some COs as analysis of answer scripts and discussions with the students revealed that, theory component in this subject is weak and contributed to poor basic concepts and their applications in PO attainment.</p> <p><b>Action:</b> Flow charts for metabolisms of biomolecules will be prepared using contextual knowledge of chemical structure, biochemical reaction, enzymes, coenzymes, regulation and inhibitory drugs.</p>
<p>C303 In the course of dispensing pharmacy theory, students were unable to correlate quality of dosage form and safety, health and legal issues.</p> <p><b>Action:</b> Importance of safety, health and legal issues will be explained during practical sessions with case studies.</p>
<p>C304 In the course on Pharmaceutical engineering theory, student performance has been low with respect to attainment of some COs as analysis of answer scripts and discussions with the students revealed that, theory component in this subject is weak and contributed to poor basic concepts and their applications in PO attainment.</p> <p><b>Action 1:</b> Oral presentation will be conducted on the benefits of applying knowledge for wellbeing of society and community.</p> <p><b>Action 2:</b> Group activities will be conducted to develop skills to access contextual knowledge and understand the consequent responsibilities relevant to the professional pharmacy practice.</p>
<p>C305 The reason for poor performance of this course was attributed to the not the students not having the time to complete reading the subject.</p> <p><b>Action:</b> The students would be guided on how to do so.</p>
<p>C405 The cause for poor performance of this course was the students had forgotten the Anatomy, Physiology and Pathophysiology taught in the previous Semesters, therefore couldn't understand the pharmacology.</p> <p><b>Action:</b> The Anatomy, Physiology and Pathophysiology topics related to Pharmacology-I would be revised.</p>
<p>C504 In a course on Pharmacology-II theory, student performance has been low with respect to attainment of CO-9, as result analysis of periodic and end-semester examinations revealed that, application of basic concepts in this subject is weak and contributed to lower values of PO attainment.</p> <p><b>Action:</b> Charts will be prepared based on contextual knowledge of rational use of antibiotics, oral contraceptives , and adverse effects of various therapeutic agents like anti-diabetic drugs, anti-coagulants, immunosuppressants and drugs acting on thyroid gland and drugs affecting bone mineral homeostasis, in relevance to societal health and safety in professional pharmacy practice.</p>
<p>C601 Student's performance was seen to be low in applying the knowledge of the course in societal health and safety issues.</p> <p><b>Action:</b> Students will be guided to correlate the societal issues with the knowledge learned in the course and update accordingly.</p>
<p>C605 In the course of Hospital pharmacy and drug store management theory, student performance has been low with respect to attainment of some COs as analysis of answer scripts and discussions with the students revealed that, theory component in this subject is theoretical and contributed to management concepts and their applications in PO attainment.</p> <p><b>Action 1:</b> Oral presentation will be conducted on the benefits of applying knowledge for wellbeing of</p>



society and community. <b>Action 2:</b> Group activities will be conducted to develop skills to access contextual knowledge and understand the consequent responsibilities relevant to the professional pharmacy practice.			
C706 In the course of Pharmaceutical Jurisprudence theory, student performance has been low with respect to attainment of some COs as analysis of answer scripts and discussions with the students revealed that, theory component in this subject is inert, contributed to legal language which found difficult to understand and recollect basic concepts and their applications in PO attainment. <b>Action 1:</b> Oral presentation will be conducted on the benefits of applying knowledge for wellbeing of society and community. <b>Action 2:</b> Group activities will be conducted to develop skills to access contextual knowledge and understand the consequent responsibilities relevant to the professional pharmacy practice.			
C803 In the course of Biopharmaceutics and Pharmacokinetics, the attained value for PO9 was lower than that mapped as the analysis of the quiz paper revealed that the students did not get enough practice to apply the knowledge gained during the course of their study <b>Action:</b> More practice would be given to the students by giving them small assignments wherein they would be make use of the theoretical knowledge and come up with practical solutions for the problems posed and thereby help the society at large			
PO10: <b>Environment and sustainability:</b> Understand the impact of the professional pharmacy solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.			
PO10:	2.01	2.02	High
Action 1: Action N:			
PO11: <b>Life-long learning:</b> Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. Self-assess and use feedback effectively from others to identify learning needs and to satisfy these needs on an ongoing basis.			
PO11:	1.93	1.87	Medium
C103 Some of the POS were not attained for this course. After questioning the students it was discovered the students did not have clear basic concepts which was expected. <b>Action:</b> More time will be devoted to clarify the concepts.			
C108: In the course on Computer lab, student performance has been low with respect to attainment of some COs as analysis of answer scripts and discussions with the students revealed that, there is no theory component in this subject and contributed to poor basic concepts and their applications in PO attainment. <b>Action:</b> Additional assignments will be conducted which will strengthen their subject knowledge. Emphasis will be laid on the application of computer technology which will in turn help the students in relating better to the course and also in applying the knowledge gained in future.			
C202: In Biochemistry - I theory, student performance has been low with respect to attainment of some COs as analysis of answer scripts and discussions with the students revealed that, theory component in this subject is weak and contributed to poor basic concepts and their applications in PO attainment. <b>Action:</b> Oral presentations will be conducted on biomolecules application, deficiency syndromes and hyperactivity.			
C204 The course of physical pharmacy II, deals with study of physico-chemical principles and applying these principles effectively and independently wherever possible through their pharmacy career which they found it difficult as they were not aware of the different context applications of these principles. <b>Action:</b> Assigning students to collect information on examples related with the application of physico-			

chemical principles. Additional assignments and quizzes will be conducted which will strengthen their subject knowledge which will in turn help the students in relating better to the course and also in applying this knowledge effectively and independently in future.
<p>C205 Some of the COs were not attained for this course. While discussing informally with the students, the reason for this was the students found understanding of the Nervous System to be tough.</p> <p><b>Action:</b> The understanding will be enhanced by more diagrammatic explanation.</p>
<p>C301 Organic chemistry forms the basis of pharmacy and, knowledge of this subject is required lifelong. Less attainment of this subject suggests the need to conduct extra practice for the subject.</p> <p><b>Action:</b> Assignments and quizzes will be conducted on basic concepts of organic chemistry and various reactions involved in benzene.</p>
<p>C302 In Biochemistry - II theory, student performance has been low with respect to attainment of some COs as analysis of answer scripts and discussions with the students revealed that, theory component in this subject is weak and contributed to poor basic concepts and their applications in PO attainment.</p> <p><b>Action:</b> Oral presentations will be conducted on biomolecules regulation and inhibitory drugs</p>
<p>C305 The reason for poor performance of this course was attributed to the not the students not having the time to complete reading the subject.</p> <p><b>Action:</b> The students would be guided on how to do so.</p>
<p>C401 Most of the advances in the pharmaceutical industry are based on knowledge of organic chemistry. Less attainment of PO11 suggests the need to increase basic knowledge regarding syntheses, molecular rearrangements and reactions of different functional groups.</p> <p><b>Action:</b> In order to increase life-long learning of Organic Chemistry, assignments and quizzes will be conducted on basic concepts of organic chemistry, syntheses, molecular rearrangements and reactions of some important functional groups.</p>
<p>C404 In the course of Microbiology C404 Students performance has been low with respect to attainment of some COs as it was revealed that the theory component was weak with respect to basics and applications.</p> <p><b>Action:</b> In order to improve basics extra classes will be conducted.</p>
<p>C405 The cause for poor performance of this course was the students had forgotten the Anatomy, Physiology and Pathophysiology taught in the previous Semesters, therefore couldn't understand the pharmacology.</p> <p><b>Action:</b> The Anatomy, Physiology and Pathophysiology topics related to Pharmacology-I would be revised.</p>
<p>C503 In the course of Biotechnology C503 Students performance has been low with respect to attainment of some Cos as it was revealed that the theory component was weak with respect to basic concepts and their applications.</p> <p><b>Action:</b> In order to improve basics extra classes will be conducted.</p>
<p>C504 In a course on Pharmacology-II theory, student performance has been low with respect to attainment of CO-11, as analysis of answer scripts and discussions with the students revealed that, theory component in this subject is weak and contributed to poor basic concepts and their applications in PO attainment.</p> <p><b>Action:</b> Assignments will be conducted based on the recent advances in the pharmacotherapy of various disorders like cancer, AIDS, malaria, bacterial and fungal infections, diabetes, osteoporosis, anemia.</p>
<p>C601 Student's performance was seen to be low in lifelong learning.</p> <p><b>Action:</b> Extra classes will be taken for students to convey importance of course contents with the learning.</p>
C603 The course of Pharmaceutics III was mapped with PO11 as it would provide the basis for reading

up and following up the developments in the said field thus aiding them in lifelong learning. But after due analysis and reflection; it could be concluded that a habit of assessing scientific material available on these topics was not developed in the students.

**Action:** In order to help them get interested in the area and to learn to find and use scientific information, an activity would be conducted wherein each student would be given a related problem and they would be encouraged to give a solution to it by referencing scientific material which would help them explore beyond the realm of the syllabus.

C605 In the course of Hospital pharmacy and drug store management theory, student performance has been low with respect to attainment of some COs as analysis of answer scripts and discussions with the students revealed that, theory component in this subject is theoretical and contributed to management concepts and their applications in PO attainment.

**Action 1:** Assigning students to collect information on latest technologies use in pharmaceutical industries, various management programs conducted around them and time to time amendments in various acts as per the need of country and for benefit of consumer.

**Action 2:** Additional assignments and quizzes will be conducted which will strengthen their subject knowledge. Emphasis will be laid on the application of the principles of pharmaceutical engineering which will in turn help the students in relating better to the course and also in applying the knowledge gained in future.

C706 In the course of Pharmaceutical Jurisprudence theory, student performance has been low with respect to attainment of some COs as analysis of answer scripts and discussions with the students revealed that, theory component in this subject is inert, contributed to legal language which found difficult to understand and recollect basic concepts and their applications in PO attainment.

**Action 1:** Assigning students to collect information on latest technologies use in pharmaceutical industries, various management programs conducted around them and time to time amendments in various acts as per the need of country and for benefit of consumer.

**Action 2:** Additional assignments and quizzes will be conducted which will strengthen their subject knowledge. Emphasis will be laid on the application of the principles of pharmaceutical engineering which will in turn help the students in relating better to the course and also in applying the knowledge gained in future.

**For the curriculum of 2012 – 16**

POs	Target Level	Attainment Level	Observations
<b>PO1: Pharmacy Knowledge:</b> Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioural, social, and administrative pharmacy sciences; and manufacturing practices.			
PO1	2.61	2.69	High
Action 1: Action N: -.			
<b>PO2: Planning Abilities:</b> Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.			
PO2	2.18	2.29	High
Action 1: Action N:			
<b>PO3: Problem analysis:</b> Utilize the principles of scientific enquiry, thinking analytically, clearly and critically, while solving problems and making decisions during daily practice. Find, analyze, evaluate and apply information systematically and shall make defensible decisions.			
PO3	2.19	2.27	High
<b>Action 1:</b> <b>Action 2:</b>			
<b>PO4: Modern tool usage:</b> Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitations.			
PO4	2.01	2.10	High
Action 1: Action N:			
<b>PO5: Leadership skills:</b> Understand and consider the human reaction to change, motivation issues, leadership and team-building when planning changes required for fulfillment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and well-being.			
PO5	2.01	2.13	High
Action 1: Action N:			
<b>PO6: Professional Identity:</b> Understand, analyze and communicate the value of their professional roles in society (e.g. health care professionals, promoters of health, educators, managers, employers, employees).			
PO6:	1.94	2.00	High
Action 1: Action N:			
<b>PO7: Pharmaceutical Ethics:</b> Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behavior that recognizes cultural and personal variability in values, communication and lifestyles. Use ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.			
PO7:	1.97	2.07	High
Action 1: Action N:			
<b>PO8: Communication:</b> Communicate effectively with the pharmacy community and with society at large, such as, being able to comprehend and write effective reports, make effective presentations and			

documentation, and give and receive clear instructions.			
PO8:	1.84	1.88	High
Action 1: Action N:			
PO9: <b>The Pharmacist and society:</b> Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional pharmacy practice.			
PO9:	1.87	1.92	High
Action 1: Action N:			
PO10: <b>Environment and sustainability:</b> Understand the impact of the professional pharmacy solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.			
PO10:	2.01	2.12	High
Action 1: Action N:			
PO11: <b>Life-long learning:</b> Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. Self-assess and use feedback effectively from others to identify learning needs and to satisfy these needs on an ongoing basis.			
PO11:	1.93	1.98	High
Action 1: Action N:			

**Similar Tables should be presented for CAYm2 : Not applicable**

**Criterion 8**

**Student Support Systems**

**50**

**8.1. Mentoring system to help at individual levels**

**(5)**

*Type of mentoring: Professional guidance/career advancement/course work specific/laboratory specific/all-round development. Number of faculty mentors: Number of students per mentor: Frequency of meeting:  
(The institution may report the details of the mentoring system that has been developed for the students for various purposes and also state the efficacy of such system)*

The class teachers are appointed for the first to final year classes. The mentoring team consists of 18 teachers. Each faculty member is assigned a fixed number of students, right at the time of their joining of the Program i.e. approximately 20 students per mentor.

The faculty conducts periodical meeting with students in order to evaluate their academic performance and proper orientation towards the Program, as well as guide them to rectify any short comings and to solve any problems.

Following issues are discussed with students:

1. Attendance
2. Economic status
3. Behaviour
4. Personal study time table
5. Study pattern
6. Extra hobby classes etc.
7. Travelling details and difficulties
8. Difficulty in writing / speech
9. Confidence level
10. Ragging
11. Hostel / Food issues
12. Women related issues
13. In case of any other observations, it is noted and discussed.
14. Students are motivated to participate in co-curricular and extra-curricular activities.

Following information about students is collected by individual mentors and a record maintained

- Students Personal Information
- Previous Record
- Academic Performance
- Competitive Examination Details
- Details of Internship and Industrial Trainings
- Scholarships Received
- Co-Curricular and Extra-Curricular activities.
- The mentors meet the students periodically and monitor their performance and their activities.
- Guidance regarding the lagging issues is provided.

Parents'-Teacher Meeting is held once in each year to brief the progress of their wards to their parents. This process has improved students' academic performance, attendance and participation in co-curricular and extra-curricular activities.

## **8.2. Feedback analysis and reward /corrective measures taken, if any (10)**

Feedback collected for all courses: YES/NO Specify the feedback collection process: Percentage of students who participated: Specify the feedback analysis process: Basis of reward / corrective measures, if any: Number of corrective actions taken in the last three years:

*(The institution needs to design an effective feedback questionnaire. It needs to justify that the feedback mechanism developed by the institution really helps to evaluate teaching, and finally, contributes to the quality of teaching and ensure attainment of set levels for each PO)*

Feedback about the teaching staff is collected every semester. The mechanism and implementation is as described hereunder.

### **METHOD FOLLOWED FOR STUDENTS' FEEDBACK COLLECTION**

#### **Preliminary feedback**

- This is taken within 4 weeks of commencement of every new semester so as to assess the compatibility between the subject teacher and the class.
- The suggestions/complaints/appreciations from the students are shared with the concerned teacher and HODs.
- The teachers are counseled in case if the feedback is poor by the HOD, senior staff member of the department and Principal.
- The preliminary feedback is not taken as a criterion for adjudging the best teacher.

#### **Final feedback**

- This is taken one week before the end of each semester in the questionnaire format.
- The feedback is analysed and a report is generated for each faculty for every subject.
- However, the feedback is not shared with the teachers until the beginning of the following semester.
- The final feedback is used for assessing the teacher for the "BEST TEACHER" award. (50% weightage is given to students' final feedback)
- As a corrective measure against possible prejudices, 10% of worst opinions are not considered while analysing the feedback.

#### **Method followed for collection of feedback**

- Students' feedback format was devised after a number of discussions with the faculty and undergoes modifications as and when required.
- All students of each class are given an opportunity to express their opinion with regards to effectiveness in teaching by a teacher, which are detailed in the feedback format.
- The opinions of students are taken within 4 weeks of commencement of each semester which helps the institute to take corrective measures at an early stage. This also helps the teachers in improving their teaching methodology.



- However, the result of the preliminary feedback is not taken as a criterion for adjudging the best teacher and is only utilised by the teacher/s as guidance for improvement.
- There are always possibilities of certain students developing prejudices against a teacher if he/ she is a strict disciplinarian. This may lead to a negative impression about the teacher concerned. This factor is taken into consideration while analysing the final students' feedback.
- As a corrective measure against such prejudices, 10% of worst opinions are not considered while analysing the feedback. However, the experience of the college shows that the feedback is largely based on the teaching efficiency of a faculty irrespective of his/ her strictness.
- By and large this system has been functioning well and is integrated into teaching excellence awards being conferred by the college wherein half the weightage is reserved for students' feedback. By and large this system has been functioning well and is integrated into teaching excellence awards being conferred by the college wherein half the weightage is reserved for students' feedback.
- Other than these there are other channels by which students can voice their grievances. These include a suggestion box and a dedicated email account ([complaints.bvcop@gmail.com](mailto:complaints.bvcop@gmail.com)). Students are also encouraged to share their views and suggestion with the mentor to whom they are assigned. If all else fails, students have an easy access to the Principal, wherein they can directly go and complain/ share their views with him.
- Regular meetings of the Principal, Vice Principal and a few students from each class are held to get an update on syllabus completion, teaching methodology, and conduct of teaching, non-teaching and administrative staff, facilities and infrastructure. Prompt action is taken in case of any issues brought to notice by students.

#### **Actions taken:**

The following actions are taken on basis of the feedback collected.

#### **Commendatory actions**

1. Best teacher award.
2. Letters of appreciation for faculty members receiving more than 90% in their feedback.

#### **Corrective actions**

1. Teachers receiving between 50-60 % in their feedback would be counselled.
2. Strict action would be taken against teachers with less than 50% in their feedback.

#### **List of actions taken in the previous 3 years**

Term	Letters of appreciation	Memo	Counselled
2016-17 (Even Sem)	3	1	3
2016-17 (Odd Sem)	-	1	2
2015-16 (Even Sem)	3	5	3
2015-16 (Odd Sem)	4	6	3
2014-15 (Even Sem)	-	-	4
2014-15 (Odd sem)	1	-	3



### 8.3. Feedback on facilities

(5)

*(Assessment is based on feedback collection, analysis and corrective action taken in respect of library, computing facilities, canteen, sports etc.)*

Online feedback about all the facilities provided by the college is collected once every semester. The feedback is kept anonymous and the concerned department, committee or individuals are counselled and steps are taken to implement changes. A periodic review is conducted by the Principal along with the Vice Principals to check the changes made and if they are continued. A repeat feedback is taken verbally from a representative audience directly by the Principal wherein the students can voice their view in a confidential environment.

### 8.4. Self Learning

(5)

*(Specify the facilities, materials and scope for self-learning / learning beyond syllabus and creation of facilities for self-learning / learning beyond syllabus)*

Internet facility is provided at the college; many e- journals are subscribed and made available to the students at the college library to help them develop the habit of self-learning and learning beyond syllabus.

Students are generally encouraged to attend seminars/ workshops conducted in /outside college. To enable learning beyond syllabus for UG students, college conducts demonstration experiments and invites experts from industry to share their knowledge.

#### List of experiments demonstrated in 2016 – 17

Sr.No.	Class	Name of the experiment
1	F. Y.B. Pharm	Dissolution apparatus demonstration
2	S. Y. B. Pharm	Soxhlet apparatus demonstration
3	T. Y. B. Pharm	FTIR demonstration
4	Final Year B. Pharm	DSC demonstration

#### List of experiments demonstrated in 2015 – 16

Sr.No.	Class	Name of the experiment
1	F. Y.B. Pharm	Dissolution apparatus
2	S. Y. B. Pharm	UV-Visible spectrophotometer
3	T. Y. B. Pharm	FTIR
4	Final Year B. Pharm	Flash chromatography

### List of experiments demonstrated in 2014 – 15

Sr.No.	Class	Name of the experiment
1	F. Y. B. Pharm	Disintegration test apparatus
2	S. Y. B. Pharm	Soxhlet apparatus
3	T. Y. B. Pharm	HPLC
4	Final Year B. Pharm	Digital microscope

#### 8.5. Career Guidance, Training, Placement

(10)

*(Specify the facility, its management and its effectiveness for career guidance including counselling for higher studies, campus placement support, industry interaction for training/internship/placement, etc.)*

##### FACILITY:

- The Campus Training and Placement Cell undertake activities in this regard.
- Experienced industry professionals in the respective domain of job profiles are invited for guest lectures.
- Through these activities, the students are made aware of the opportunities in various fields along with the required job profile. At the same time, they get a chance to interact with these industry professionals to take advantage of their experience in respective field of expertise.

##### FACILITY MANAGEMENT

- The students are groomed through lectures on aspects of pre-requisites for facing interviews such as preparing an effective prototype resume and effective measures and presentation skills to face an interview.
- The students are also counselled for taking up higher studies in India as well as abroad.

##### EFFECTIVENESS:

- These measures have proven to be effective as it is evident that the numbers of reputed pharma companies visiting our campus have increased significantly over past three years.

#### 8.6. Entrepreneurship Cell

(5)

*(Describe the facility, its management and its effectiveness in encouraging entrepreneurship and incubation)*

The Entrepreneurship Development Cell aims to improve and generate a culture of innovation and development of entrepreneurial spirit amongst the students and budding entrepreneurs and start their own enterprise. It also attempts to train and equip them with the knowledge and resources they need to build a successful business.

##### FACILITY:

The Entrepreneurship Cell is attached with the training & placement cell. All the members of the training and placement cells are available throughout the day for the students to help them regarding starting up their own business venture. The activities are not just limited to the current students but even the alumni are encouraged to take benefits of the services offered by the cell.

##### TRAINING:

The students are exposed to different seminars, workshops and interactive sessions to make them a perfect entrepreneur.

### **8.7. Co-curricular and Extra-curricular Activities**

**(10)**

*(Specify the co-curricular and extra-curricular activities)*

Apart from the academic activities, the students are also involved in various extra-curricular and co - curricular activities organized at Inter-Collegiate as well as Intra-collegiate level. Student council committee is in-charge for organizing, co-ordinating and conduction of all these activities.

The council has formed B.V's KATTA- a club of pharmacy artists and technicians to empower students' imagination and creativity by displaying their articles on the KATTA. Along with these activities college collaborates with The Rotaract Club of CBD Belapur, Navi Mumbai to organise healthcare campaigns.

### **8.7. Co-curricular and Extra-curricular Activities**

**(10)**

*(Specify the co-curricular and extra-curricular activities)*

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The council has formed B.V's KATTA- a club of pharmacy artists and technicians to empower students' imagination and creativity by displaying their articles on the KATTA. Along with these activities college collaborates with The Rotaract Club of CBD Belapur, Navi Mumbai to organise healthcare campaigns.

### **A] EXTRA-CURRICULAR ACTIVITIES: Intracollegiate Activities:**

#### **Academic Year: 2017-18**

Sr. No	Event	Date
1.	Orientation ceremony	19 <sup>th</sup> August, 2017
2.	Traditional Ganesha aarti	28 <sup>th</sup> August, 2017
3.	Teachers' day	8 <sup>th</sup> September, 2017
4.	Garba night	25 <sup>th</sup> September, 2017

**Academic Year: 2016-17**

Sr. No	Event	Date
1.	Orientation ceremony	10 <sup>th</sup> August, 2016
2.	Traditional Ganesha aarti	6 <sup>th</sup> August, 2016
3.	Teachers' day	5 <sup>th</sup> September, 2016
4.	Garba night	25 <sup>th</sup> September, 2017
5.	'Spandan' Annual Day	11 <sup>th</sup> February, 2017
6.	Farewell	18 <sup>th</sup> March, 2017
7.	Alumni meet	4 <sup>th</sup> February, 2017

**Academic Year: 2015-16**

Sr. No	Event	Date
1.	Orientation ceremony	1 <sup>st</sup> August, 2015
2.	Traditional Ganesha aarti	22 <sup>nd</sup> September, 2015
3.	Teachers' day	5 <sup>th</sup> September, 2015
4.	Garba night	13 <sup>th</sup> October, 2015
5.	'Spandan' Annual Day	6 <sup>th</sup> February, 2016
6.	Farewell	30 <sup>th</sup> July, 2016
7.	Alumni meet	30 <sup>th</sup> July, 2016

**Academic Year: 2014-15**

Sr. No	Event	Date
1.	Orientation ceremony	2 <sup>nd</sup> August, 2014
2.	Traditional Ganesha aarti	1 <sup>st</sup> September, 2014
3.	Teachers' day	5 <sup>th</sup> September, 2014

4.	Garba night	27 <sup>th</sup> September, 2014.
5.	'Spandan' Annual Day	31 <sup>st</sup> January, 2015
6.	Farewell	8 <sup>th</sup> May, 2015
7.	Alumni meet	3 <sup>rd</sup> January, 2015

**A] EXTRA-CURRICULAR ACTIVITIES: Intercollegiate Annual Festival "Rx":  
Academic Year: 2016-17**

Sr. No.	Event	Date
1.	Rx Voyage 2017	5 <sup>th</sup> – 14 <sup>th</sup> January, 2017

**Academic Year: 2015-16**

Sr. No.	Event	Date
1.	Rx Broadway 2016	18 <sup>th</sup> – 23 <sup>rd</sup> January, 2016

**Academic Year: 2014-15**

Sr. No.	Event	Date
1.	Rx Nexus 2015	15 <sup>th</sup> -17 <sup>th</sup> January, 2015

**B] CO-CURRICULAR ACTIVITIES:**

**I] Intercollegiate Activities:**

Bharati Vidyapeeth's Yashvantrao Mohite's College of Arts, Commerce and Science, Pune organizes a General Knowledge Test every year where all students participate.

**II] Intercollegiate Activities:**

**Academic Year: 2017-18**

Sr. No.	Event	Venue & Date
1.	'CHEMTASTIC 2017'	Vivekanand Education Society's College of Pharmacy (VESCOP), Chembur on 5th August 2017.

**Academic Year: 2016-2017**

Sr. No.	Event	Venue & Date
1.	'CHEMTASTIC 2016'	Vivekanand Education Society's College of Pharmacy (VESCOP), Chembur on 23 <sup>rd</sup> July, 2016.
2.	"Insight Pharma"	IES Bandra on 16 <sup>th</sup> December 2016

**Year 2015-2016**

Sr. No.	Event	Venue & Date
1.	"Techcrunch- 2015"	H. K. College of Pharmacy on 29 <sup>th</sup> September, 2015.
2.	Pharma Quiz competition	Saraswathi Vidya Bhavan's College of Pharmacy, Dombivali on 29 <sup>th</sup> January 2016 . Final year B. Pharm. students Saurabh Korgaokar and Varunkumar Yadav won the first place and cash prize of Rs.10,000/- and Ms. Leena Pade and Ms. Nayan Mandora won the second place and cash prize of Rs.5,000/-

**Year 2014-2015**

Sr. No.	Event	Venue & Date
1.	Scientific poster on 'Herb-drug interaction'	ISC 2014 held at the Mumbai University.
2.	14 <sup>th</sup> Intercollegiate Pharma Quiz competition	Final Year B. Pharm. students won the first place and a cash prize of Rs.10,000/- in the competition at Saraswathi Vidya Bhavan's College of Pharmacy, Dombivali on 19 <sup>th</sup> December, 2014.

<b>Criterion 9</b>	<b>Governance, Institutional Support and Financial Resources</b>	<b>100</b>
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**9. Governance, Institutional support and Financial Resources (100)**

**9.1. Organization, Governance and Transparency (50)**

**9.1.1. Governing body, administrative setup, functions of various bodies, service rules procedures, recruitment and promotional policies (10)**

*List the governing, senate, and all other academic and administrative bodies; their memberships, functions, and responsibilities; frequency of the meetings; and attendance therein, participation of external members in a tabular form. A few sample minutes of the meetings and action-taken reports should be annexed.*

*The published rules, policies and procedures; year of publication and its implementation shall be listed. Also state the extent of awareness among the employees/students*

**Organization and Governance:**

**Constitution of the Governing Body:**

The governing body of an Institution shall have equal representation from the Society/ Trust on the one hand and the Government, Council and Affiliating Body on the other hand. The Principal of the Institution shall be the Member-Secretary of the Governing Body. The constitution is so prescribed that the collective wisdom of the members of the society, Government officials, officials of the affiliating body and the expert members is available for smooth running of the institution. The Governing Body constitutes of 11 members including the Chairman and Member Secretary. The registered Society/ Trust shall nominate 6 members including the Chairman and the Member Secretary and the remaining 5 members shall be nominated as indicated below.

**Composition of Governing body:**

Sr. No.	Name	Position	Status of the member
1.	Hon. Dr. Vishwajeet Kadam	Chairman	Nominated by the Management
2.	Dr. D.Y. Patil	Member	Nominated by the Management
3.	Dr. M.Z. Shaikh	Member	Nominated by the Management
4.	Mr. P.N. Tandon	Member	Nominated by the Management
5.	Mrs. Ritu Deshmukh	Member	Nominated by the Management
6.	Dr. A.K. Shukla	Member	Vice Chancellor Nominee
7.	Mr. V.S. Loke	Member	Nominee of AICTE
8.	Mr. Sameer K. Desai	Member	Nominee of University of Mumbai
9.	Mr. Chandrashekhar Oak	Member	Nominee of Govt. of Maharashtra (Ex. Officio)
10.	Dr. S.M. Thakkar	Member	Nominee of State Govt. (Industrialist/Technologist/Educationalist)
11.	Dr. Vilasrao Kadam	Member	Member – Secretary

### **Appointment of the Chairman of the Governing Body:**

The Chairman of the Governing Body shall preferably be a technical person, either an entrepreneur or an industrialist of repute who is interested in the development of technical education, member of the parent Society/Trust and has demonstrated an interest in the promotion of quality education.

### **Functions of the Governing Body:**

The Governing Body as stated earlier is the Supreme Body responsible for the management of the Institution. Its function shall include the following:

- To form the following Sub-Committees and consider the recommendations made by them:
  1. Finance Committee
  2. Equipment Committee
  3. Building Committee
  4. Staff Selection Committee
  5. Academic Committee
- To approve the budget estimates- recurring and non- recurring for the financial year in advance.
- To scrutinize and accept the audited statement of account yearly.
- To estimate the workload, approve the staff requirement for teaching and non-teaching (technical and administrative) for the Institute.
- To consider and approve the proposals for creation of infrastructure such as building, equipment, library on continuous basis.
- To consider and make provisions for meeting the general and specific conditions laid by the Council (AICTE), the State Government and Affiliating Body and monitor the progress in fulfilling the conditions.
- To consider the report of the Principal on status of admission.
- To consider the report of the Principal on the academic performance of the students.
- To monitor the working conditions of the Staff as prescribed by the Affiliating Body/ Government.
- To consider the proposals of the Principal for improvement in academic performance of the Staff.
- To consider any other matter that enhances the academic atmosphere in the Institution.
- To consider any proposal for expansion of educational activities to be made to the Council/Government/Affiliating Body.
- Frequency of meeting- Governing Council meets once in a year. (Refer Annexure - III for minutes)

The college has a well-marked administrative set up conforming to the norms of the AICTE and UGC. A sample copy of Minutes of Meeting of the Governing Body is attached as Annexure III.

### **Published rules, procedures, recruitment and promotional policies, etc.**

1. The rules are well defined. The policies and procedures are made clear. Rules concerned with the general administration of the college, recruitment procedure and service



conditions of the staff, leave rules of the staff, policies of promotion and increment are framed properly.

2. All the newly recruited staff and the newly admitted students are made aware of these rules through orientation Programs. These are also made available on the college website
3. Recruitment is done in a transparent manner purely on the basis of merit, after notifying the vacancies in the leading newspapers.
4. Recruitment of faculty and staff for regular appointment is done by the University of Mumbai Staff Selection Committee comprising of the subject experts, the management representative and the Principal.
5. In case of immediate requirement, recruitment is done by the college Staff Selection Committee consisting of the management members, Principal and the subject experts.
6. The published rules, policies and procedures with regard to faculty and staff recruitment, promotions, leaves and retirement are made available on the college website.

### **9.1.2. Decentralization in working and grievance redressal mechanism (15)**

*List the names of the faculty members who are administrators/decision makers for various responsibilities. Specify the mechanism and composition of grievance redressal cell.*

Decentralization in working is achieved by constitution of following sub committees.

#### **1. Finance Committee**

Sr. No.	Name	Status	Designation
1	Dr. D. Y. Patil	Chairman	Joint Director, BV Education complex, Navi Mumbai
2	Dr. K. R. Jadhav	Member	Vice-Principal (B. Pharm)
3	Dr. (Mrs.) C. S. Ramaa	Member	Vice-Principal (M. Pharm)
4	Mr. G. L. Patankar	Member	Accountant
5	Dr. Vilasrao J. Kadam	Member	Principal

#### **2. Equipment Committee**

Sr. N.	Name	Status	Designation
1	Dr. D. Y. Patil	Chairman	Joint Director, BV Education complex, Navi Mumbai
2	Dr. K. R. Jadhav	Member	Vice-Principal (B. Pharm)
3	Dr. (Mrs.) C. S. Ramaa	Member	Vice-Principal (M. Pharm)
4	Mr. G. L. Patankar	Member	Accountant
5	Dr. Vilasrao J. Kadam	Member	Principal

### 3. Building Committee

Sr. N.	Name	Status	Designation
1	Dr. D. Y. Patil	Chairman	Joint Director, BV Education complex, Navi Mumbai
2	Dr. K. R. Jadhav	Member	Vice-Principal (B. Pharm)
3	Dr. (Mrs.) C. S. Ramaa	Member	Vice-Principal (M. Pharm)
4	Mr. G. L. Patankar	Member	Accountant
5	Dr. Vilasrao J. Kadam	Member	Principal

### 4. Staff Selection Committee

Sr. N.	Name	Status	Designation
1	Hon. Dr. Vishwajeet Kadam	Chairman	Secretary, Bharati Vidyapeeth
2	Dr. D. Y. Patil	Member	Joint Director, BV Education complex, Navi Mumbai
3	Dr. Vilasrao J. Kadam	Member	Principal

### 5. Academic Committee

Sr. N.	Name	Status	Designation
1	Dr. D. Y. Patil	Chairman	Joint Director, BV Education complex, Navi Mumbai
2	Dr. K. R. Jadhav	Member	Vice Principal (B. Pharm)
3	Dr. (Mrs.) C. S. Ramaa	Member	Vice Principal (M. Pharm)
4	Mr. G. L. Patankar	Member	Accountant
5	Dr. Vilasrao J. Kadam	Member	Principal

Grievance is addressed by the presence and functioning of the following bodies in the college:

#### 1. Grievance Redressal Cell

The college has a Grievance Redressal Cell; the committee members are nominated by the Principal of the college and it works under his supervision, for solving grievance of students, staff & parents. The composition of the cell is as given below:

Sr. No	Name of the Member	Status	Designation
1	Dr. Vilasrao J. Kadam	Academician	Principal
2	DR. K.R. Jadhav	Academician	Professor & Vice-Principal
3	Dr. V. M. Jadhav	Academician	Representative of Faculty Member (Female)
4	Dr. C.S. Ramaa	Academician	Vice Principal
5	Mr. S. S. Mahadik	Administration	Junior Clerk
6	Mrs. V. V. Khanvilkar	Academician	Associate Professor
7	Mr. D. D. Kadam	Administration	Representative of Nonteaching Staff
8	Mr. G. L. Patankar	Administration	Office Superintendent
9	Ms. Rupali Madapura	Student (G.S)	Representative of Students

### **Mechanism**

The students are the main stakeholders in any institution imparting education, and it is our endeavour to make all efforts to ensure transparency in all the activities at different stages.

The grievances may broadly include the following complaints of the aggrieved students

**a.** Academic (Grievance related to assessment, Grievance related to victimization

Grievance related to attendance, Grievance related to charging of fees, Grievance regarding conducting of examinations, completion of syllabus, teaching methods etc)

**b.** Non-Academic (Harassment by colleague /students or the teachers complaints regarding class room teaching, class room management etc.)

Complaints by students, parents and staff can be made in writing or oral to the Principal/ Staff. This complaint is then resolved by discussion in meeting by the committee and if required the aggrieved may be involved.

### **2. Women Development Cell**

Grievances related to women are addressed by a women development cell. The college has formed an internal complaints committee (Sexual harassment of women at work place prevention prohibition and redressal act 2013). The composition is as given below:

Sr. No	Name of the Member	Status	Designation
1.	Dr. (Mrs.) V. M. Jadhav	Professor	Chairperson
2.	Dr. (Mrs.) C. S. Ramaa	Vice-Principal	Member
3.	Dr. (Mrs.) M. P. Toraskar	Associate Professor	Member
4.	Mrs. V. V. Khanvilkar	Associate Professor	Member
5.	Mrs. M. S. Karpe	Associate Professor	Member

6.	Dr. (Mrs.) A. P. Jadhav	Associate Professor	Member
7.	Mrs. S. D. Patil	Assistant Professor	Member
8.	Mr. D. D. Kadam	Administration	Member
9.	Ms. Sanika Jadhav	Student	Member
10.	Mr. Sanjay Jadhav	NGO	Member

**Mechanism:**

- Any woman or girl student from college who wants to file a complaint can write to members of anti-Sexual Harassment Cell/ CWDC/Internal complaints committee or file an oral or written complaint addressed to the Chairperson of the Cell.
- The complaint shall include the specific nature of the incident, date and the place of the incident, name of all parties involved as well as a detailed report of all pertinent facts.
- If any oral or written complaint is made to the Principal or any of the Committee members, they may forward it to the Chairperson of the Committee.
- Investigation will be conducted as quickly as possible and confidentiality shall be maintained during investigation.
- The committee in consultation with the management can take the following putative actions.

**Putative Action:** Depending on the nature and severity of the offence, one or more of the following putative action(s) may be implemented:

***For Employees:***

- Written apology
- Warning
- Withholding of increments.
- Demotion / transfer to lower / other service, grade or post.
- Compulsory retirement.
- Termination of service / Dismissal from service

***For Students:***

- Written apology
- Warning
- Withholding / withdrawing Scholarship / Fellowship and Other Benefits.
- Rustication from the college for a known period.
- Expulsion from the college.

### 3. Anti- Ragging Committee:

Sr. No	Name of the Member	Status	Designation
1	Dr. Vilasrao J. Kadam	Chairman	Academician
2	Dr. Ashish Shirurkar	Member	Practicing Physician
3	Ms. Pradnya Bansode	Member	Police Officer
4	Mr. C.B. Ligade	Member	Reporter
5	Mr. Suresh Sharma	Member	Business Tax Consultant
6	Dr. K.R. Jadhav	Member	Academician
7	Dr. V. M. Jadhav	Member	Academician
8	Mrs. Mrinalini Nair	Member	Service
9	Mr. Santosh Ghodinde	Member	Pharmacist
10	Ms. Pooja Jaiswal	Member	Student
11	Mr. Sushant Mahajan	Member	Student
12	Mr. Bhavya Shah	Member	Student
13	Mr. Shaan Qureshi	Member	Student
14	Mr. D. D. Kadam	Member	Administration
15	Dr. C.S. Ramaa	Anti-Ragging Squad	Academician
16	Mr. G. L. Patankar	Anti-Ragging Squad	Administration
17	Mr. Ravindra Shinde	Anti-Ragging Squad	Technical Staff
18	Mrs. Swati Dhande	Anti-Ragging Squad	Academician
19	Mr. Wilson Lukose	Anti-Ragging Squad	Academician
20	Mrs. Sandhya Dilip Jadhav	Anti-Ragging Squad	Academician

The committee members are nominated by the Principal of the college and they work under his supervision.

#### **Mechanism:**

- The committee has a mechanism in place by means of which it ensures compliance with the UGC regulation 2009 for curbing the menace of ragging at institute level.
- The committee monitors and oversees the performance of Anti-ragging squad in prevention of ragging in the institution
- Every student admitted to the course is asked to submit an on-line affidavit stating that he/she will not indulge in any act of ragging.
- Posters have been displayed in the campus indicating that ragging is strictly prohibited in the institution and the penalty measures to be taken thereof.
- List of Anti-ragging committee members along with their personal contact numbers have been displayed on college notice board so that the victims may approach any of these members to address the issue of ragging.

### **Implementation**

- An Anti-ragging squad is nominated by the Principal with the representation from the campus community.
- It makes surprise raids in girls' and boys' common rooms and hostels and other places vulnerable to incidents of and having the potential of ragging.
- It conducts on the spot enquiry in to any incident of ragging.
- The committee maintains alert vigil at all times and ensures that the Anti- ragging squad of the institution carry out their functions properly.

### **9.1.3. Delegation of financial powers**

**(15)**

*Explicitly mention financial powers delegated to the Principal, Heads of Departments and relevant in-charges. Demonstrate the utilization of financial powers for each year of the assessment years.*

1. The financial sub-committee comprises of Dr. D. Y. Patil as the Chairman, Principal Dr. Vilasrao J Kadam as the Member Secretary, two teaching and one non-teaching staff members.
2. The Governing body has delegated financial powers to the Member Secretary.
3. Budget allocation is decided by the above committee.
4. The budget is utilized for purchase of equipment, maintenance, consumables and other miscellaneous expenses.
5. Accounts are audited more than twice a year.

### **9.1.4. Transparency and availability of correct/unambiguous information in public domain**

**(10)**

*Information on the policies, rules, processes is to be made available on web site.*

The following rules and codes of conduct have been displayed on the website:

- 1) Rules for admissions to degree course in pharmacy are as per DTE norms.
- 2) Rules for reservation
- 3) Rules for fee structure
- 4) Reimbursement of tuition fee
- 5) Cancellation of admission and refund of fees
- 6) Code of conduct
- 7) Rules for attendance
- 8) Rules for examination
- 9) Rules for detention

### **9.2. Budget Allocation, Utilization, and Public Accounting at Institute level**

**(30)**

Summary of current financial year's budget and actual expenditure incurred (for the institution exclusively) in the three previous financial years.

**Total Income at Institute level: For CFY, CFYm1, CFYm2 & CFYm3**

**CFY: Current Financial Year, CFYm1 (Current Financial Year minus 1), CFYm2 (Current Financial Year minus 2) and CFYm3 (Current Financial Year minus 3)**

**Current Financial Year: 2016-17**

Total Income				Actual expenditure				Total Number of students
Fee	Govt	Grant(s)	Other sources	Recurring	Non recurring	Special projects/ Any other	Expenditure per student	
29541909	0	0	336947	33785675	1029810	0	138157	252

**CFYm1:2015-16**

Total Income				Actual expenditure				Total Number of students
Fee	Govt	Grant(s)	Other sources	Recurring	Non recurring	Special projects/ Any other	Expenditure per student	
23879477	0	0	315774	33364245	2818961	0	152030	238

**CFYm2:2014-15**

Total Income				Actual expenditure				Total Number of students
Fee	Govt	Grant(s)	Other sources	Recurring	Non recurring	Special projects/ Any other	Expenditure per student	
24350481	0	0	277127	34068080	2701327	0	143630	256

*Note: Similar tables are to be prepared for CFYm1, CFYm2 & CFYm3.*

<b>Items</b>	<b>Budgeted in financial year 2016-17</b>	<b>Actual expenses in financial year 2016-17</b>	<b>Budgeted in financial year 2015-16</b>	<b>Actual expenses in financial year 2015-16</b>	<b>Budgeted in financial year 2014-15</b>	<b>Actual expenses in financial year 2014-15</b>
<b>Infrastructure Built-Up</b>	867000	866780	867000	862093	741800	844560
<b>Library</b>	600000	513911	800000	1059352	600000	1090517
<b>Laboratory equipment</b>	1200000	247151	1200000	2484815	1610000	1661298
<b>Laboratory consumable</b>	800000	857829	900000	1213127	1000000	1044618
<b>Teaching and non-teaching staff salary</b>	26844300	21588611	24215400	20655034	22328300	20711180
<b>Maintenance and spares</b>	6421200	8814371	7004400	8155595	6604400	9265717
<b>R &amp; D</b>	50000	29139	50000	85373	200000	99341
<b>Training And Travel</b>	100000	155074	100000	115596	140000	154738
<b>Miscellaneous exp. (Hospitality)</b>	50000	69062	58700	104879	75000	15272
<b>Others, specify*</b>	321000	564043	336400	615662	541200	946306
<b>Total</b>	<b>37253500</b>	<b>33705971</b>	<b>35531900</b>	<b>35351526</b>	<b>33840700</b>	<b>35833547</b>

\* Items to be mentioned. (Advertisement, Functions, NMMC Cess, Professional Charges, Seminars, Sports, Student Activities)

**Audited statement of accounts are attached in Annexure IV**



**9.2.1. Adequacy of budget allocation**

**(10)**

*Justify that the budget allocated over the years was adequate*

The yearly budget is prepared according to the needs & requirements of the institute taking into consideration annual intake of students, laboratory & infrastructure requirements.

Formal budget estimates are prepared by Local Managing Committee of the college and reviewed by the governing body. In cases where there are urgent requirements not taken into consideration while preparing budget, special allocation of funds are made on a case to case basis.

**9.2.2. Utilization of allocated funds**

**(15)**

*State how the budget was utilized during the last three years.*

▪ **Recurring Budget:**

Sr. No.	Financial Year	Funds Allocated	Funds Utilized	% of utilization
1	2016-17	35,503,500.00	34,815,485.00	98.06
2	2015-16	3,38,31,900.00	3,33,64,245.00	98.61
3	2014-15	3,18,56,700.00	3,40,68,080.00	106.94

▪ **Non-Recurring Budget:**

Sr. No.	Financial Year	Funds Allocated	Funds Utilized	% of utilization
1	2016-17	1,750,000.00	1,029,810.00	58.84
2	2015-16	17,00,000.00	28,18,961.00	165.82
3	2014-15	19,84,000.00	27,01,327.00	136.15

**9.2.3. Availability of audited statements on the institute's website (5)**

*(Needs to make audited statements available on its website.)*

Audited statement is made available on the college website.

### 9.3 Library and Internet

(20)

*It is assumed that zero deficiency report was received by the institution, Effective availability and utilization to be demonstrated.*

#### 9.3.1. Quality of learning resources (hard/soft)

(10)

*(Relevance of available learning resources including e-resources, Accessibility to students)*

1. Library is automated with software: Libsuite version 1.0 with bar code system.
2. Relevance of available learning resources including e-resources:
  - No. of volumes:14390
  - No. of titles: 3150
  - Newspapers: 14
  - National Journals :12
  - International e-Journals:
    - Basic and Clinical Pharmacology And Toxicology: 06
    - Science direct : 70
3. E- information resources-
  - CDs:50
4. Digital Library
  - No of PCs:10
  - Internet facility available- speed 150 mbps
5. Accessibility to students, faculty and staff: 9:00 am to 5:00 pm

#### 9.3.2 Internet

(10)

*(Name of the Internet provider ,Available bandwidth ,Wi Fi availability ,Internet access in labs, classrooms, library and other offices, Security arrangements )*

- Name of the internet provider: Viral Wifi Connect Pvt. Ltd
- Available bandwidth: 150mbps
- Wi-Fi availability: Yes
- Internet access in labs, classrooms, library and other offices: Yes
- Security arrangements: Yes (Quick Heal Internet Security)

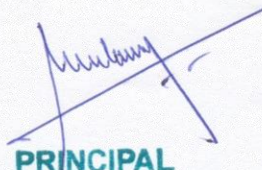
### **Declaration**

I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines in force as on date and the institute shall fully abide by them.

It is submitted that information provided in this Self-Assessment Report is factually correct. I understand and agree that an appropriate disciplinary action against the Institute will be initiated by the NBA in case any false statement/information is observed during pre-visit, visit, post visit and subsequent to grant of accreditation.

**Date: 11/10/2017**

**Place: Navi Mumbai**



**PRINCIPAL**  
**B. V's College of Pharmacy**  
**Sector 8, C,B,D. Belapur,**  
**Navi Mumbai 400 614.**

**Name: Dr. Vilasrao J. Kadam**



# Annexure I – Program Outcomes

## ANNEXURE I: PROGRAM OUTCOMES

1. **Pharmacy Knowledge:** Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioral, social, and administrative pharmacy sciences; and manufacturing practices.
2. **Planning Abilities:** Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.
3. **Problem analysis:** Utilize the principles of scientific enquiry, thinking analytically, clearly and critically, while solving problems and making decisions during daily practice. Find, analyze, evaluate and apply information systematically and shall make defensible decisions.
4. **Modern tool usage:** Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitations.
5. **Leadership skills:** Understand and consider the human reaction to change, motivation issues, leadership and team-building when planning changes required for fulfillment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and well-being.
6. **Professional Identity:** Understand, analyze and communicate the value of their professional roles in society (e.g. health care professionals, promoters of health, educators, managers, employers, employees).
7. **Pharmaceutical Ethics:** Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behavior that recognizes cultural and personal variability in values, communication and lifestyles. Use ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.
8. **Communication:** Communicate effectively with the pharmacy community and with society at large, such as, being able to comprehend and write effective reports, make effective presentations and documentation, and give and receive clear instructions.
9. **The Pharmacist and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional pharmacy practice.
10. **Environment and sustainability:** Understand the impact of the professional pharmacy

solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

11. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. Self-assess and use feedback effectively from others to identify learning needs and to satisfy these needs on an ongoing basis.

# Annexure II a – Program Curriculum (CBSGS pattern)