**Attainment Calculations of course outcomes 2021-22** 

Subject: PTSM I

Class: F. Y. M Pharm. (Sem.-I)

Calculations for attainment level:

To define target level:

	Attainment Level	Target
Criteria for target level	111111111111111111111111111111111111111	
		0.75
25% students scored >85% marks	3	0.75
(25/100x3)		
	2	1.3
marks (65/100x2)		0.1
10% students scored <65% marks	1	0.1
(10/100x1)		
(10/100111)		2.15
	Criteria for target level  25% students scored >85% marks (25/100x3)  65% students scored 85-65% marks (65/100x2)  10% students scored <65% marks (10/100x1)	Criteria for target level         Attainment Level           25% students scored >85% marks         3           (25/100x3)         2           65% students scored 85-65%         2           marks (65/100x2)         1           10% students scored <65% marks

Result analysis:

Sr. No.	Criteria for target level	No. of	f students
110.		Internal Exam.	University Exam.
1	students scored >85% marks (25/100x3)	03	01
2	students scored 65-85% marks (65/100x2)	03	04
3	students scored <65% marks (10/100x1)	00	01
Total	students	06	06

#### Calculation for attainment:

Internal Examination

Internal Exam		tainment			
Sr. No.	At				
	Internal Examination	University Examination			
1	$3/06 \times 3 = 1.5$	01/06  x3 = 0.50			
2	$03/06 \times 2 = 1$	$04/06 \times 2 = 1.33$			
2	$0.00 \times 2 \times 1 = 0.16$ $0.1/06 \times 1 = 0.16$				
Attainment	2.5	1.99			
	2.5/2.15×100 =116%	1.99/2.15x100 =93%			
% attainment	2.3/2.13×100 -110/0				
Final attainment	25/100x2.5 +	$75/100 \times 1.99 = 2.11$			

Sign, of subject Teacher

#### PUNE DISTRICT EDUCATION ASSOCIATION'S

#### SETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY

#### SASWAD, DIST-PUNE Academic Year 2021-22

#### Mapping of Course Outcome and Programme Outcomes 2021-22

Course name: PTSM-I (T)

Class: F Y M. Pharm. (Sem.-I)

Course Code: MPL103T

5,7,8,9,101 1	1-5	2.15	2.11	Fully attained	
-		-			
5,7,8,9,101	1-5	•			

CO.3	1,2,4,6,7,8,9,101	1-5				
Describe the	1					
various					1	
newer						
screening						
methods						
involved in						
the drug						
discovery						
process						
CO.4	1,2,4,6,7,8,9,101	1-5		1		
Appreciate	1					
and correlate						
the						
preclinical						
data to			,			
humans						
2						

Sign. of subject Teacher

#### PUNE DISRTICT EDUCATION ASOCIATIONSETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY

#### SASWAD, DIST-PUNE

### Academic Year 2020-29

Course code/	Course outcomes	Progr	am ou	tcome	S							
Course name		1	2	3	4	5	6	7	8	9	10	11
M. Pharmacy I Year (Sem	I)											
PHARMACOLOGICAL AND TOXICOLOGICAL SCREENING	CO.1 Appraise the regulations and ethical requirement for the usage of experimental animals.	3			2				3			3
METHODS - I (MPL 103T)	CO.2 Describe the various animals used in the drug discovery process and good laboratory practices in maintenance and handling of experimental animals				2				3	<b></b>		
	CO.3 Describe the various newer screening methods involved in the drug discovery process	3	3	2	2				3			3
	CO.4 Appreciate and correlate the preclinical data to humans	3	3	2	2		2	2	3	2	2	3
2.7	Average course outcomes = 2.4	3	-3	2	2		2	2	3	2	2	3
		2.7	2.7	1.80	1.80		1.80	1.80	2.7	1.80	1.80	2.7



# PUNE DISTRICT EDUCATION ASSOCIATION'S

## PUNE DISRTICT EDUCATION ASOCIATIONSETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY Academic Year 2021-22

Course code/	Course outcomes	Pro	gram S comes	n Specific es					
Course name		1	2	3	4	5			
M. Pharmacy I Year (Se	m I)								
PHARMACOLOGICAL AND TOXICOLOGICAL	CO.1 Appraise the regulations and ethical requirement for the usage of experimental animals.	3	3	2	2	3			
TOXICOLOGICAL SCREENING METHODS - I (MPL 103T)	CO.2 Describe the various animals used in the drug discovery process and good laboratory practices in maintenance and handling of experimental animals	3	3	2	2	3			
	CO.3 Describe the various newer screening methods involved in the drug discovery process	3	3	2	2	3			
	CO.4 Appreciate and correlate the preclinical data to humans	3	3	2	2	3			
2.7	Average=2.6	3	3	2	2	3			
r r		2.7	2.7	1.80	1.80	2.7			



## **Attainment Calculations of course outcomes 2021-22**

**Subject:** Chemistry of Natural Products (T)

Class: First Yr. M. Pharm. (Sem.-I)

Calculations for attainment level:

To define target level:

Sr. No.	Criteria for target level	Attainment Level	Target
1	25% students scored >65% marks (25/100x3)	3	0.75
2	65% students scored 55-65% marks (65/100x2)	2	1.3
3	10% students scored <55% marks (10/100x1)	1	0.1
	(10/10011)		2.15

Result analysis:

Sr. No.	Criteria for target level	No. of	students
1.00	6	Internal Exam.	University Exam.
1	25% students scored >65% marks (25/100x3)	10	12
2	65% students scored 55-65% marks (65/100x2)	02	00
3	10% students scored <55% marks (10/100x1)	00	00
Total	students	12	12

#### Calculation for attainment:

Sr. No.	Attair	nment
511101	Internal Examination	University Examination
1	10/12x3 = 2.5	12/12x3 = 3
2 .	02/12x2 = 0.33	00/12x2 = 0
3	00/12x1 = 00	00/12x1 = 00
Attainment	2.83	3
% attainment	2.83/2.15 x100 = 131.62 %	$3/2.15 \times 100 = 139 \%$
Final attainment		$75/100 \times 3 = 2.95$

As the final CO attainment is 2.95 and the set target is 2.15 and therefore the CO is fully attained.

Sign. of subject Teacher

# Mapping of Course Outcome and Programme Outcomes

Subject: Chemistry of Natural Products –I (T) Class: First Yr. M. Pharm. (Sem.-I)

Course Code: MPC104T

Subject	Mapped Pos	Mapped PSOs	CO Target	CO attainment	Fully attained/No	Remedia I
The students should be able to- CO 1. Know different types of natural compounds and their chemistry and medicinal importance	1 & 4	1,2,3,4 &5	2.15	2.95	t attained Fully attained	measures
CO 2. Realize the importance of natural compounds as lead molecules for new drug discovery	1,4 &11	1,2,3,4 &5				
CO 3. Understand the concept of rDNA technology tool for new drug discovery	1 &3	1,2,3,4				
CO 4. Know various methods of structural elucidation of compounds of natural origin	1,3 &	1,2,3,4 &5				
CO 5. Understand process of Isolation, Purification and characterization of simple chemical constituents from natural source	1,3 &	1,2,3,4 &5				

Sign. of subject Teacher

	POs and PSOs attainment for	r ac	ade	mic y	ear 20.	21-2	1	and the second second	Sales County Printers	and the second	aldered production	and transfer of
Course code/	Course outcome				Pro	ogra	m o	utcom				-
Course name		1	2	3	4	5	6	7	8	9	0	1
M. Pharmacy- 1 Ye	ar ( Semester system) Semester- 1		-							-		-
MPC 104T Chemistry of	The students should be able to- CO 1. Know different types of natural compounds and their chemistry and	3	-	-	2	1	•	-				
Natural Products (T)	medicinal importance CO 2. Realize the importance of natural compounds as lead molecules	3	-	-	2	-	-	-	-	-		2
	for new drug discovery CO 3. Understand the concept of rDNA technology tool for new drug	3	-	2	-	-	-	-	-	-	-	-
	discovery CO 4. Know various methods of structural elucidation of compounds of	3	-	3	-	-	-	-	-	-	-	2
	natural origin CO 5. Understand process of Isolation, Purification and characterization of simple chemical constituents from	3	-	3	-	-	-	-	-	-	-	3
( .	natural source Average course outcome: .2.09	3	-	2.	2	-	-	-	-	-	-	2
, i	PO attainment (Max.:3)	2 . 8 7	-	2. 48	1.9	-	-	-	-	-	-	2 0

	110 \$ 100 \$ 100 \$	Pro	ogram S	Specific	outcor	ne
Course code/ Course	Course outcome	1	2	3	4	5
name	Semester system) Semester- I	3	3	1	1	1
MPC 104T	The students should be done to	3	3			
Chemistry of	and their chemistry and medicinal importance CO 2. Realize the importance of natural compounds	3	3	2	2	1
Natural Products (T)	as lead molecules for new drug discovery  CO 3. Understand the concept of rDNA technology	3	3	2	2	1
	tool for new drug discovery  CO 4. Know various methods of structural	3	3	2	2	1
	elucidation of compounds of natural origin CO 5. Understand process of Isolation, Purification and characterization of simple chemical constituents	3	3	2	2	1
,	from natural source Average course outcome: 2.4 (Max: 3.00)	3_	3	1.8	1.8	0.9
j	PSO attainment (Max.:3)	2,8	2.8	1.7	2	5

**Attainment Calculations of course outcomes 2018-19** 

Subject: Pharmaceutics I (T)

Class: First Y. B. Pharm.(Sem.-I)

Calculations for attainment level:

To define target level:

Sr. No.	Criteria for target level	Attainment Level	Target
1	25% students scored >65% marks (25/100x3)	3	0.75
2	65% students scored 55-65% marks (65/100x2)	2	1.3
3	10% students scored <55% marks (10/100x1)	1	0.1
			2.15

Result analysis:

IXCSU	Result analysis:									
Sr.	Criteria for target level	No. of students								
No.										
		Internal Exam.	University Exam.							
1	25% students scored >65% marks (25/100x3)	62	49							
2	65% students scored 55-65% marks (65/100x2)	03	10							
3	10% students scored <55% marks   (10/100x1)	00	06							
Total s	students	65	65							

#### Calculation for attainment:

#### **Internal Examination**

Sr. No.	Attainment								
	Internal Examination	University Examination							
1	62/65x3 = 2.86	49/65x3 = 2.26							
2 •	03/65x2 = 0.13	10/65x2 = 0.30							
3	00/65x1 = 00	06/65X1 = 0.184							
Attainment	2.86	2.26							
% attainment	$2.86/2.15 \times 100 = 133.02\%$	2.26/2.15x100 = 105.11%							
Final attainment	$25/100 \times 2.86 + 75/100 \times 2.26 = 2.41$								

As the final CO attainment is **2.41** and the set target is **2.15** and therefore the CO is fully attained.

Sign.of subject Teacher

### Attainment Calculations of course outcomes 2018-19

Subject: Pharmaceutics-I (P)

Class: First Y. B. Pharm. (Sem.-I)

Course Code: BP109P

Calculations for attainment level:

To define target level:

Sr. No.	Criteria for target level	Attainment Level	Target
1	25% students scored >65% marks (25/100x3)	3	0.75
2	65% students scored 55-65% marks (65/100x2)	2	1.3
3	10% students scored <55% marks (10/100x1)	L	0.1
and the same		The second secon	2.15

Result analysis:

Sr. No.	Criteria for target level	No. of students					
		Internal Exam.	University Exam.				
1	25% students scored >65% marks (25/100x3)	63	61				
2	65% students scored 55-65% marks (65/100x2)	02	04				
3	10% students scored <55% marks (10/100x1)	00	00				
Total	students	65	65				

#### Calculation for attainment: Internal Examination

Sr. No.	Attainment							
	Internal Examination	University Examination						
	63/65x3= 2.90	61/65x3 = 2.81						
2	02/65x2 = 0.061	04/65x2 = 0.12						
3	00/65x1 = 00	* 00/65= 00						
Attainment	2.96	2.93						
% attainment	2.96/2.15×100 = 137.67%	2.93/2.15×100 = 137.67%						
Final attainment		5/50 x2.93= 2.93						

As the final CO attainment is 2.93 and the set target is 2.15 and therefore the CO is fully attained.

Sign.of subject Teacher

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Course code/	Course outcomes	P some	ram s	pecific	· Chitter	iffermes		
Course name		1	1	1	4	Ś		
	B. Pharmacy First Venr (semester cyclem)				į.			
BP103 7. Sharmaceutics-I ×(Theory)	Upon completion of this course the student should be able to 1. Know the history of profession of pharmacy	3	il di	ż	and the second	3		
-(111013)	2.Understand the basics of different dosags form!	3	30	3	ı	1		
	3 Understand the professional way of handling the prescription	3	2	*		1		
	Average=2.2		1.69					
		2.41	1.60	1.60	0.80	2.41		
BP 109 P.	The students should be able to- Co.1 Preparation of various conventional dosage.	3	7	3	)	ì		
(Practical)	Co.2 Preparation of semisolid desage forms.	3	1	2	3	3		
9	Co.3 Preparation of liquid dosage forms	3	3	2	3	3		
		2.93	1.97	1.97	2.93	2.93		
	Average=2.5					Na contraction and a		

## POs and PSOs attainment for academic year 2018-19

Course code/	Course outcome							Pro	gram	outco	ne				
Course name			1	1	2	3	4		5	6	7	8	9	10	111
B. Pharmacy- 1st \	ear ( Semester system) S	Semes	ter- I	- Loin	-							-			
•	COI	13			T	Ti	-	T	2			7			2
BP101.T.		3	1			'			2	-	1	۷			2
Pharmaceutic	CO2	3				1				-	+,	2	2		2
s-l (Theory)						'					1	_	2		4
	CO3	3	1			1			2		1	2	2		2
•	CO4	3	+	-		1			2		1	2	2		2
	Average course outcome 2.42	3	+			1			2		2	?	2		2
	PO attainment	2.4	1			0.	.80		1.60		1	.6	1.6		1.60
							,	15			0	)	0		

POs and PSOs attainment for academic year 2018-19

Course code/	Course outcor	ne	Program outcome												
Course name		1	12		3 4	5		5 7		0	10	11			
B. Pharmacy-1st '	Year ( Semester	system) 5	emester- I	e de la companya de l	in the same of the same	and the second second	Name of Street, Street	and the same of the same	-		-	and the same of			
	COI	3	p-p	***			2	3	2	2	2	2			
BPT09 .P. Pharmaceutic	CO2	3	1	61.8	3	g-m	2	3	9/6	2	2	2			
-l (Practical)	CÖ3	3	I	1	3	1	2	2	16.76	2	44	44			
	CO4	3	1	1	3	1	2	3		2	Mark Control of the C	2			
	Average course outcome 2 93	3	1	1	3	1	2	3		2	2	2			
	PO attainment	.2.93	0.97	0.97	2.93	0.97	1.95	2.93		1.95	1.95	1.95			

Attainment Calculations of course outcomes 2019-20

Subject: Pharmaceutical Microbiology (T)

Class: Second Y. B. Pharm.

(Sem.-III)

Calculations for attainment level:

To define target level:

Sr. No.	Criteria for target level	Attainment Level	Target
1 .	25% students scored >65% marks (25/100x3)	3	- 0.75
2	65% students scored 55-65% marks (65/100x2)	2	1.3
3	10% students scored <55% marks (10/100x1)	1	0.1
			2.15

Result analysis:

Sr. No.	Criteria for target level	No. of students						
_		Internal Exam.	University Exam.					
l	25% students scored >65% marks (25/100x3)	58	23					
2	65% students scored 55-65% marks (65/100x2)	19	37					
3 •	10% students scored <55% marks (10/100x1)	04	21					
	students	81	81					

#### Calculation for attainment: Internal Examination

Attainment		
Internal Examination	University Examination	
58/81x3= 2.14	23/81x3 = 0.85	
19/81x2 = 0.46	37/81x2 = 0.91	
04/81x1 = 0.04	21/81X1 = 0.77	
2.64	2.53	
2.86/2.15x100 = 133.02%	2.26/2.15x100 = 105.11%	
25/100x2.86+ 75/100		
	Internal Examination 58/81x3= 2.14 19/81x2 = 0.46 04/81x1= 0.04 - 2.64 2.86/2.15x100 = 133.02%	

As the final CO attainment is 2.64 and the set target is 2.53 and therefore the CO is fully attained.

Sign.of subject Teacher

### Attainment Calculations of course outcomes 2019-20

Subject: Pharmaceutical Microbiology (P)

Class: Second V. B. Pharm. (Sem.-III)

Course Code: BP100P

Calculations for attainment level:

To define target level:

Sr. No.	Criteria for target level	Attainment Level	Target
1	25% students scored >65% marks (25/100x3)	3	0.75
2	65% students scored 55-65% marks (65/100x2)	2	1.3
3	10% students scored <55% marks (10/100x1)	1	0.1
Markinsi o Den Telbesones		The second country of	2.15

Result analysis:

Sr. No.	Criteria for target level	No. 01	students
THE STATE OF THE S		Internal Exam.	University Exam.
1	25% students scored >65% marks (25/100x3)	76	80
2	65% students scored 55-65% marks (65/100x2)	05	01
3	10% students scored <55% marks (10/100x1)	00	- 00
Total	students	81	81

#### Calculation for attainment:

#### Internal Examination

Sr. No.	Attainment				
	Internal Examination	University Examination			
1	76/81x3= 2.81	80/81x3 = 2.96			
2	05/81x2 = 0.123	01/81x2 = 0.02			
3	00/81x1 = 00	00/81=00			
Attainment	2.93	2.98			
% attainment	2.93/2.15x100 = 136.27%	2.98/2.15x100 = 138.60%			
Final attainment	15/50x2.93 + 35/50 x2.98= 2.96				

As the final CO attainment is 2.96 and the set target is 2.15 and therefore the CO is fully attained.

Sign of subject Teacher

#### SASWAD, DIST-PUNE

#### Academic Year2019-2020

- Course code/	Course outcomes				ı	Progr	am o	utcom	ies			
Course name		1	2	3	4	5	6	7	8	9	10	11
B. Pharmacy II	Year (semester III)											
_	The students should be able to-	3	-	-	-	-	3	-	2	1		1
303 T	CO 1. To learn basics, historicals, recent advances of								_			-
Pharmaceutic	microbiology and applications in pharmacy.				78				1			
al	CO 2. To know basic biology and characteristics of microbes'	3	-	-	1	-	2	1	2	1	-	1
Microbiology	viz. Bacteria, Viruses yeast and moulds etc.				ļ .		_		-			-
	CO 3. To understand bacterial Isolation and counting	3	2	3	2	-	2	1.	2	_		1
•	methods, Concept, causes, sources, types of microbial		_		-		_	5	_			٠.
	contamination and limit tests.											
	CO 4. To study concept, need, types, mechanisms of	3	2	2	1	1.	1	1	2	-	1	1
	Sterilization Sterility testing and effectiveness of various		_	-		5			_			·
	sterilization processes.											
	CO 5. To study concept, need, classification, mechanism of	3	2	2	1	-	2	1	2	2	2	1
, *	action and evaluation of disinfectants.	-					_		_	-	_	-
•	CO 6. To comprehend the basic aspects of Immunology, types	3	2	2	1	1.	2	1.	2	2	2	1
	of Immunity, Antigen Antibody reactions and their diagnostic					5	-	5	-	-	_	-
	use, types and preparation methods of vaccines.											
	Average course outcomes =1.5	3	2	2.	1.	1.	2	1.	2	1.	0.6	1
				25	2	5		2		5		
307 P	The students should be able to-	3	-	-	1=	-	-	-	-	-	-	1
Pharmaceutic	CO 1. To understand the principle, construction and working		~									
al	of various instruments used for microbiology practicals and											
Microbiology	to learn handling of microscope.											
•	CO 2. To learn how to prepare and sterilize nutrient broth,	3	1	1	2	-	-	1	2	-	1	2
	nutrient agar, slants, stabs and plates and acquire the skills											
	required for maintaining strictly aseptic condition & handling						-					
	inoculating loop, its sterilization and inoculation procedure.											
	CO 3. To learn Isolation of bacteria by various techniques,	3	1	1			-	-			-	2
	observe motility and study morphology of bacteria by staining				2	-,			l	-		
, •	methods viz. simple staining, negative staining & gram	-										
•	staining etc.											
	CO 4. To carryout sterility testing of WFI, Antibiotic Assay	3	1-	1	1	-	-	-	-	-	-	1
	and MIC.											
•	Average course outcomes = 1.43	3	1	1	1.	-	-	1	1.	-	1	1.
•					5				5			5

Name and kigh of subject teacher

Name and sign of HOD

#### SASWAD, DIST-PUNE

#### Academic Year 2019-2020

#### **CO-PSO Matrix**

Course code/	Course outcomes			am sp		
Course name		1	2	3	4	5
B. Pharmacy II Yea	r (semester III)					
_	The students should be able to-	3	-	-	-	-
303 T	CO 1. To learn basics, historicals, recent advances of microbiology and					
Pharmaceutical	applications in pharmacy.					
Microbiology	CO 2. To know basic biology and characteristics of microbes' viz.	3	-	-	1	-
	Bacteria, Viruses yeast and moulds etc.					
	CO 3. To understand bacterial Isolation and counting methods,	3	2	3	2	-
	Concept, causes, sources, types of microbial contamination and limit					
	tests.					
	CO 4. To study concept, need, types, mechanisms of Sterilization	3	2	2	l	1
-	Sterility testing and effectiveness of various sterilization processes.					5
	CO 5. To study concept, need, classification, mechanism of action and	3	2	2	1	-
	evaluation of disinfectants.					
	CO 6. To comprehend the basic aspects of Immunology, types of	3	2	2	1	1
	Immunity, Antigen Antibody reactions and their diagnostic use, types					5
	and preparation methods of vaccines.					
	Average course outcomes =2.05	3	2	2.2	1.5	1 5
307 P	The students should be able to-	3	-	-	1	-
Pharmaceutical	CO 1. To understand the principle, construction and working of various					
Microbiology	instruments used for microbiology practicals and to learn handling of					
	microscope.					
	CO 2. To learn how to prepare and sterilize nutrient broth, nutrient agar,	3	1	1	2	-
	slants, stabs and plates and acquire the skills required for maintaining					
	strictly aseptic condition & handling inoculating loop, its sterilization					
	and inoculation procedure.					
-	CO 3. To learn Isolation of bacteria by various techniques, observe	3	1	l		
	motility and study morphology of bacteria by staining methods viz.				2	١.
	simple staining, negative staining & gram staining etc.					
	CO 4. To carryout sterility testing of WFI, Antibiotic Assay and MIC.	3	-	1	1	
	Average course outcomes = 1.62	3	1	1	1.5	1

Name and sign of subject teacher

Name and sign of HOD

Attainment Calculations of course outcomes 2019-20

Subject: Pharmaceutical Microbiology (T)

Class: Second Y. B. Pharm.

(Sem.-III)

Calculations for attainment level:

To define target level:

Sr. No.	Criteria for target level	Attainment Level	Target
1 .	25% students scored >65% marks (25/100x3)	3	- 0.75
2	65% students scored 55-65% marks (65/100x2)	2	1.3
3	10% students scored <55% marks (10/100x1)	1	0.1
			2.15

Result analysis:

Sr. No.	Criteria for target level	No. of students		
_		Internal Exam.	University Exam.	
l	25% students scored >65% marks (25/100x3)	58	23	
2	65% students scored 55-65% marks (65/100x2)	19	37	
3 •	10% students scored <55% marks (10/100x1)	04	21	
	students	81	81	

#### Calculation for attainment: Internal Examination

Attainment		
Internal Examination	University Examination	
58/81x3= 2.14	23/81x3 = 0.85	
19/81x2 = 0.46	37/81x2 = 0.91	
04/81x1 = 0.04	21/81X1 = 0.77	
2.64	2.53	
2.86/2.15x100 = 133.02%	2.26/2.15x100 = 105.11%	
25/100x2.86+ 75/100		
	Internal Examination 58/81x3= 2.14 19/81x2 = 0.46 04/81x1= 0.04 - 2.64 2.86/2.15x100 = 133.02%	

As the final CO attainment is 2.64 and the set target is 2.53 and therefore the CO is fully attained.

Sign.of subject Teacher

### Attainment Calculations of course outcomes 2019-20

Subject: Pharmaceutical Microbiology (P)

Class: Second V. B. Pharm. (Sem.-III)

Course Code: BP100P

Calculations for attainment level:

To define target level:

Sr. No.	Criteria for target level	Attainment Level	Target
1	25% students scored >65% marks (25/100x3)	3	0.75
2	65% students scored 55-65% marks (65/100x2)	2	1.3
3	10% students scored <55% marks (10/100x1)	1	0.1
Markinsi o Den Telbesones		The second country of	2.15

Result analysis:

Sr. No.	Criteria for target level	No. 01	students
THE STATE OF THE S		Internal Exam.	University Exam.
1	25% students scored >65% marks (25/100x3)	76	80
2	65% students scored 55-65% marks (65/100x2)	05	01
3	10% students scored <55% marks (10/100x1)	00	- 00
Total	students	81	81

#### Calculation for attainment:

#### Internal Examination

Sr. No.	Attainment				
	Internal Examination	University Examination			
1	76/81x3= 2.81	80/81x3 = 2.96			
2	05/81x2 = 0.123	01/81x2 = 0.02			
3	00/81x1 = 00	00/81=00			
Attainment	2.93	2.98			
% attainment	2.93/2.15x100 = 136.27%	2.98/2.15x100 = 138.60%			
Final attainment	15/50x2.93 + 35/50 x2.98= 2.96				

As the final CO attainment is 2.96 and the set target is 2.15 and therefore the CO is fully attained.

Sign of subject Teacher

#### SASWAD, DIST-PUNE

#### Academic Year2019-2020

- Course code/	Course outcomes				1	Progr	am o	utcon	ies			
Course name		1	2	3	4	5	6	7	8	9	10	11
B. Pharmacy II	Year (semester III)											_
_	The students should be able to-	3	-	-	-	-	3	-	2	1		1
303 T	CO 1. To learn basics, historicals, recent advances of								_	'		-
Pharmaceutic	microbiology and applications in pharmacy.				78							
al	CO 2. To know basic biology and characteristics of microbes'	3	-	-	1	_	2	1	2	1	-	1
Microbiology	viz. Bacteria, Viruses yeast and moulds etc.						_	-	_			-
	CO 3. To understand bacterial Isolation and counting	3	2	3	2	-	2	1.	2	-		1
•	methods, Concept, causes, sources, types of microbial				_		_	5	_			•
	contamination and limit tests.											
	CO 4. To study concept, need, types, mechanisms of	3	2	2	1	1.	1	1	2	-	1	1
	Sterilization Sterility testing and effectiveness of various					5						
	sterilization processes.											
	CO 5. To study concept, need, classification, mechanism of	3	2	2	1	-	2	1	2	2	2	1
, ,	action and evaluation of disinfectants.	-										_
	CO 6. To comprehend the basic aspects of Immunology, types	3	2	2	1	1.	2	1.	2	2	2	1
	of Immunity, Antigen Antibody reactions and their diagnostic					5		5				
•	use, types and preparation methods of vaccines.											
	Average course outcomes =1.5	3	2	2.	1.	1.	2	1.	2	1.	0.6	1
205.0				25	2	_5		2		5		
307 P	The students should be able to-	3	-	-	1=	-	-	-	-	-	-	1
Pharmaceutic	CO 1. To understand the principle, construction and working											
al	of various instruments used for microbiology practicals and											
Microbiology	to learn handling of microscope.											
•	CO 2. To learn how to prepare and sterilize nutrient broth,	3	1	1	2	-	-	1	2	-	l	2
	nutrient agar, slants, stabs and plates and acquire the skills											
	required for maintaining strictly aseptic condition & handling											
	inoculating loop, its sterilization and inoculation procedure.	_										
	CO 3. To learn Isolation of bacteria by various techniques,	3	1	1			-	-			-	2
	observe motility and study morphology of bacteria by staining				2				l	-		
, •	methods viz. simple staining, negative staining & gram	-										
	staining etc.				ļ.,							
	CO 4. To carryout sterility testing of WFI, Antibiotic Assay	3	7-	ı	l l	-	-	-	-	-	-	1
	and MIC.											
	Average course outcomes = 1.43	3	1	1	1.	-	-	1	1.	-	1	1.
•					5				5			5

Name and kigh of subject teacher

Name and sign of HOD

#### SASWAD, DIST-PUNE

#### Academic Year 2019-2020

#### **CO-PSO Matrix**

Course code/	Course outcomes		Program specific outcomes						
Course name		1	2	3	4	5			
B. Pharmacy II Yea	r (semester III)								
_	The students should be able to-	3	-	-	-	-			
303 T	CO 1. To learn basics, historicals, recent advances of microbiology and								
Pharmaceutical	applications in pharmacy.								
Microbiology	CO 2. To know basic biology and characteristics of microbes' viz.	3	-	-	1	-			
	Bacteria, Viruses yeast and moulds etc.								
	CO 3. To understand bacterial Isolation and counting methods,	3	2	3	2	-			
	Concept, causes, sources, types of microbial contamination and limit								
	tests.								
	CO 4. To study concept, need, types, mechanisms of Sterilization	3	2	2	l	1			
•	Sterility testing and effectiveness of various sterilization processes.					5			
	CO 5. To study concept, need, classification, mechanism of action and	3	2	2	1	-			
	evaluation of disinfectants.								
	CO 6. To comprehend the basic aspects of Immunology, types of	3	2	2	1	1			
	Immunity, Antigen Antibody reactions and their diagnostic use, types					5			
	and preparation methods of vaccines.								
	Average course outcomes =2.05	3	2	2.2	1.5	1 5			
307 P	The students should be able to-	3	-	-	l	Ī.			
Pharmaceutical	CO 1. To understand the principle, construction and working of various								
Microbiology	instruments used for microbiology practicals and to learn handling of								
5.	microscope.								
	CO 2. To learn how to prepare and sterilize nutrient broth, nutrient agar,	3	1	1	2	٦.			
	slants, stabs and plates and acquire the skills required for maintaining								
	strictly aseptic condition & handling inoculating loop, its sterilization								
	and inoculation procedure.								
	CO 3. To learn Isolation of bacteria by various techniques, observe	3	1	l					
	motility and study morphology of bacteria by staining methods viz.				2	.			
	simple staining, negative staining & gram staining etc.								
	CO 4. To carryout sterility testing of WFI, Antibiotic Assay and MIC.	3	-	1	1				
	Average course outcomes = 1.62	3	1	1	1.5				

Name and sign of subject teacher

Name and sign of HOD

# Attainment Calculations of course outcomes 2021-22

Subject: Cosmetic Science (T)

Class: Final Year. B. Pharm.(Sem.-VIII)

Calculations for attainment level:

To define target level:

Sr. No.	Criteria for target level	Attainment Level	Target		
1	25% students scored >65% marks (25/100x3)	3	0.75		
2	65% students scored 55-65% marks (65/100x2)	2	1.3		
3	10% students scored <55% marks (10/100x1)	1	0.1		
			2.15		

Result analysis:

Sr. No.	Criteria for target level	No. o	fstudents
1	25% students scored >65% marks	Internal Exam.	University Exam.
	(25/100x3)	59	17
2	65% students scored 55-65% marks (65/100x2)	04	35
3	10% students scored <55% marks (10/100x1)	04	15
Total stu	udents	67	67
Jaicula	tion for attainment:	*	-1 07

#### Internal Examination

Sr. No.	Atta	inment
	Internal Examination	
1	59/67x3=2.73	University Examination
2	04/67x2 = 0.059	17/67x3 = 0.67
3	04/67x1 = 0.059	35/67x2 = 1.10
Attainment	2.92	15/67x1 = 0.22
% attainment	$2.92/2.15 \times 100 = 132.09\%$	1.09
inal attainment		$1.09/2.15 \times 100 = 92.55\%$ $100 \times 1.09 = 2.40$

As the final CO attainment is 2.40 and the set target is 2.15 and therefore the CO is fully attained.

Sign. Of subject Teacher

### SASWAD, DIST-PUNE

### Academic Year 2021-22

#### CO-PO Matrix

Course code/	_ Course outcomes	Program outcomes										
B. Ph	armacy IV Year (VIIIsemester system)	1,	2	3	4	5	6	7	8	9	10	11
BP809ET COSMETIC SCIENCE	CO1. Understand the concepts of cosmetics; anatomy of skin v/s hair, general excipients used in cosmetics.	3	1	-	-	-	-	2	2	-	-	1
	CO2. Understand the concepts of cosmetics; anatomy of skin v/s hair, general excipients used in cosmetics	3	1	3	<del>-3</del>	3	3	1	3	-	2	3
• [	CO3. Know different Laws and Acts that regulate pharmaceutical industry	3	1	3	3	2	2	1	2	-	1	3
	CO4 Understand the approval process and regulatory requirements for drug products.	3	1	2	1	-	1	2	2	-	1	2
	Average course outcomes = 2.23 PO attainment	3	1	2.6	2. 3	2. 5	2	2	3	-	1.	2.2
-		2. 6. 5	0. 8 8	2.2	2. 0 3	2. 2 0	1 7 6	l. 7 6	2 . 6	-	l. 14	1.9

Name and Sign of Subject Teacher

Name and Sign of HOD

### SASWAD, DIST-PUNE

#### Academic Year 2021-22

#### **CO-PSO Matrix**

Course code/ Course name	Course outcomes	Program specific outcomes				:	
		1 2 3 4					
B. Pha	rmacy IV Year (VIII semester system)	1		3	4	-	
	The students should be able to-	3	2	1		2	
BP809ET	CO1. Understand the concepts of cosmetics;	3	2	'	-	2	
COSMETIC	anatomy of skin v/s hair, general excipients		1				
SCIENCE	used in cosmetics						
	CO2. Understand the concepts of cosmetics;	3	1	2	2	3	
	anatomy of skin v/s hair, general excipients		- ^	_	- 🦠		
-	used in cosmetics						
	CO3. Know different Laws and Acts that regulate	3	1	2	1	2	
	pharmaceutical industry					_	
•	CO 4. Understand the approval process and	3	2	1	1	2	
	regulatory requirements for drug products.	-					
	Average course outcomes = $2.26$	3	2	2	1.3	3	
	PSO attainment	2.6	1.7	1.7	1.1	2.6	
	•	5	6	6	4	5	

Name and Sign of Subject Teacher

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