

**PUNE DISTRICT EDUCATION ASSOCIATION'S
SETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY
SASWAD, DIST-PUNE**

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:

Sr. No.	Criteria for target level	Attainment Level	Target
1	25% students scored >85% marks (25/100x3)	3	0.75
2	65% students scored 85-65% marks (65/100x2)	2	1.3
3	10% students scored <65% marks (10/100x1)	1	0.1
			2.15

Result analysis:

Sr. No.	Criteria for target level	No. of students	
		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

Sr. No.	Attainment	
	Internal Examination	University Examination
1	$3/06 \times 3 = 1.5$	$01/06 \times 3 = 0.50$
2	$03/06 \times 2 = 1$	$04/06 \times 2 = 1.33$
3	$0/0 \times 1 = 00$	$01/06 \times 1 = 0.16$
Attainment	2.5	1.99
% attainment	$2.5/2.15 \times 100 = 116\%$	$1.99/2.15 \times 100 = 93\%$
Final attainment	$25/100 \times 2.5 + 75/100 \times 1.99 = 2.11$	



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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

Subject	Mapped POs	Mapped PSOs	CO Target	CO attainment	Fully attained/Not attained	Remedial measures
CO.1 Appraise the regulations and ethical requirement for the usage of experimental animals.	1,2,4,6,7,8,9,10,11	1-5	2.15	2.11	Fully attained	
CO.2 Describe the various animals used in the drug discovery process and good laboratory practices in maintenance and handling of experimental animals	1,2,4,6,7,8,9,10,11	1-5				

CO.3 Describe the various newer screening methods involved in the drug discovery process	1,2,4,6,7,8,9,10 1	1-5				
CO.4 Appreciate and correlate the preclinical data to humans	1,2,4,6,7,8,9,10 1	1-5				



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PUNE DISTRICT EDUCATION ASSOCIATION SETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY

SASWAD, DIST-PUNE

Academic Year 2020-21

Course code/ Course name	Course outcomes	Program outcomes										
		1	2	3	4	5	6	7	8	9	10	11
M. Pharmacy I Year (Sem I)												
PHARMACOLOGICAL AND TOXICOLOGICAL SCREENING METHODS - I (MPL 103T)	CO.1 Appraise the regulations and ethical requirement for the usage of experimental animals.	3	--	--	2	--	--	--	3	--	--	3
	CO.2 Describe the various animals used in the drug discovery process and good laboratory practices in maintenance and handling of experimental animals	3	--	--	2	--	--	--	3	--	--	
	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

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PUNE DISTRICT EDUCATION ASSOCIATION'S

PUNE DISTRICT EDUCATION ASSOCIATION SETH GOVIND RAGHUNATH SABLE

COLLEGE OF PHARMACY Academic Year 2021-22

COLLEGE OF PHARMACY Academic Year 2021-22

Course code/ Course name	Course outcomes	Program Specific outcomes				
		1	2	3	4	5
M. Pharmacy I Year (Sem I)						
PHARMACOLOGICAL AND TOXICOLOGICAL SCREENING METHODS - I (MPL 103T)	CO.1 Appraise the regulations and ethical requirement .for the usage of experimental animals.	3	3	2	2	3
	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
	Average=2.6	3	3	2	2	3
2.7		2.7	2.7	1.80	1.80	2.7

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**PUNE DISTRICT EDUCATION ASSOCIATION'S
SETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY
SASWAD, DIST-PUNE**

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
			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)	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.	Attainment	
	Internal Examination	University Examination
1	$10/12 \times 3 = 2.5$	$12/12 \times 3 = 3$
2	$02/12 \times 2 = 0.33$	$00/12 \times 2 = 0$
3	$00/12 \times 1 = 00$	$00/12 \times 1 = 00$
Attainment	2.83	3
% attainment	$2.83/2.15 \times 100 = 131.62 \%$	$3/2.15 \times 100 = 139 \%$
Final attainment	$25/100 \times 2.83 + 75/100 \times 3 = 2.95$	

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



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**PUNE DISTRICT EDUCATION ASSOCIATION's
SETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY
SASWAD, DIST-PUNE**

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/Not attained	Remedial measures
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	Fully attained	
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 & 5				
CO 4. Know various methods of structural elucidation of compounds of natural origin	1,3 & 11	1,2,3,4 & 5				
CO 5. Understand process of Isolation, Purification and characterization of simple chemical constituents from natural source	1,3 & 11	1,2,3,4 & 5				


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**PUNE DISTRICT EDUCATION ASSOCIATION'S
SETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY
SASWAD, DIST-PUNE**

POs and PSOs attainment for academic year 2021-22

POs and PSOs attainment for academic year 2021-22												
Course code/ Course name	Course outcome	Program outcome										
		1	2	3	4	5	6	7	8	9	10	11
M. Pharmacy- I Year (Semester system) Semester- I												
MPC 104T Chemistry of Natural Products (T)	The students should be able to- CO 1. Know different types of natural compounds and their chemistry and medicinal importance	3	-	-	2	-	-	-	-	-	-	-
	CO 2. Realize the importance of natural compounds as lead molecules for new drug discovery	3	-	-	2	-	-	-	-	-	-	2
	CO 3. Understand the concept of rDNA technology tool for new drug discovery	3	-	2	-	-	-	-	-	-	-	-
	CO 4. Know various methods of structural elucidation of compounds of natural origin	3	-	3	-	-	-	-	-	-	-	2
	CO 5. Understand process of Isolation, Purification and characterization of simple chemical constituents from natural source	3	-	3	-	-	-	-	-	-	-	3
	Average course outcome : .2.09 (Max: 3.00)	3	-	2.6	2	-	-	-	-	-	-	2.3
	PO attainment (Max.:3)	2.87	-	2.48	1.91	-	-	-	-	-	-	2.20

Course code/ Course name	Course outcome	Program Specific outcome				
		1	2	3	4	5
M. Pharmacy- I Year (Semester system) Semester- I						
MPC 104T Chemistry of Natural Products (T)	The students should be able to- CO 1. Know different types of natural compounds and their chemistry and medicinal importance	3	3	1	1	1
	CO 2. Realize the importance of natural compounds as lead molecules for new drug discovery	3	3	2	2	1
	CO 3. Understand the concept of rDNA technology tool for new drug discovery	3	3	2	2	1
	CO 4. Know various methods of structural elucidation of compounds of natural origin	3	3	2	2	1
	CO 5. Understand process of Isolation, Purification and characterization of simple chemical constituents from natural source	3	3	2	2	1
	Average course outcome: 2.4 (Max: 3.00)	3	3	1.8	1.8	1
	PSO attainment (Max.:3)	2.87	2.87	1.72	1.72	0.95

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**PUNE DISTRICT EDUCATION ASSOCIATION'S
SETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY
SASWAD, DIST-PUNE**

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:

Sr. No.	Criteria for target level	No. of students	
		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 students		65	65

Calculation for attainment:

Internal Examination

Sr. No.	Attainment	
	Internal Examination	University Examination
1	$62/65 \times 3 = 2.86$	$49/65 \times 3 = 2.26$
2	$03/65 \times 2 = 0.13$	$10/65 \times 2 = 0.30$
3	$00/65 \times 1 = 0.00$	$06/65 \times 1 = 0.184$
Attainment	2.86	2.26
% attainment	$2.86/2.15 \times 100 = 133.02\%$	$2.26/2.15 \times 100 = 105.11\%$
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.

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**PUNE DISTRICT EDUCATION ASSOCIATION'S
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SASWAD, DIST-PUNE**

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)	1	0.1
			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
1	$63/65 \times 3 = 2.90$	$61/65 \times 3 = 2.81$
2	$02/65 \times 2 = 0.061$	$04/65 \times 2 = 0.12$
3	$00/65 \times 1 = 00$	$00/65 = 00$
Attainment	2.96	2.93
% attainment	$2.96/2.15 \times 100 = 137.67\%$	$2.93/2.15 \times 100 = 137.67\%$
Final attainment	$15/50 \times 2.96 + 35/50 \times 2.93 = 2.93$	

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

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PUNE DISTRICT EDUCATION ASSOCIATION'S
SETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY

SASWADI, DIST. PUNE

Academic Year 2018-19

Course code/ Course name	Course outcomes	Program Specific Outcomes				
		1	2	3	4	5
B. Pharmacy First Year (semester system)						
BP103 T. Pharmaceutics-I (Theory)	Upon completion of this course the student should be able to					
	1. Know the history of profession of pharmacy.	3	2	2	1	3
	2. Understand the basics of different dosage forms	3	2	2	1	3
	3. Understand the professional way of handling the prescription	3	2	2	1	3
	Average=2.2	2.41	1.60	1.60	0.80	2.41
BP 109 P. Pharmaceutics-I (Practical)	The students should be able to-	3	2	2	3	3
	Co.1 Preparation of various conventional dosage.					
	Co.2 Preparation of semisolid dosage forms.	3	2	2	3	3
	Co.3 Preparation of liquid dosage forms.	3	2	2	3	3
		2.93	1.97	1.97	2.93	2.93
	Average=2.5					

**PUNE DISTRICT EDUCATION ASSOCIATION'S
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SASWAD, DIST-PUNE**

POs and PSOs attainment for academic year 2018-19

Course code/ Course name	Course outcome	Program outcome										
		1	2	3	4	5	6	7	8	9	10	11
B. Pharmacy- 1st Year (Semester system) Semester- I												
BP101 .T. Pharmaceutic s-I (Theory)	CO1	3	--	--	1	--	2	--	2	--	--	2
	CO2	3	--	--	1	--	--	--	2	2	--	2
	CO3	3	--	--	1	--	2	--	2	2	--	2
	CO4	3	--	--	1	--	2	--	2	2	--	2
	Average course outcome 2.42	3			1		2		2	2		2
	PO attainment	2.41			0.80		1.60		1.6 0	1.6 0		1.60

PUNE DISTRICT EDUCATION ASSOCIATION'S
SETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY
SASWAD, DIST-PUNE

POs and PSOs attainment for academic year 2018-19

Course code/ Course name	Course outcome	Program outcome										
		1	2	3	4	5	6	7	8	9	10	11
B. Pharmacy- 1st Year (Semester system) Semester- I												
BPT09 .P. Pharmaceutic s-I (Practical)	CO1	3	--	--	--	--	2	3	2	2	2	2
	CO2	3	1	--	3	--	2	3	--	2	2	2
	CO3	3	1	1	3	1	2	2	--	2	--	--
	CO4	3	1	1	3	1	2	3	--	2	--	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

**PUNE DISTRICT EDUCATION ASSOCIATION'S
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SASWAD, DIST-PUNE**

Attainment Calculations of course outcomes 2019-20

Subject: Pharmaceutical Microbiology (T)
(Sem.-III)

Class: Second Y. B. Pharm.

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.
1	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
Total students		81	81

Calculation for attainment:

Internal Examination

Sr. No.	Attainment	
	Internal Examination	University Examination
1	$58/81 \times 3 = 2.14$	$23/81 \times 3 = 0.85$
2	$19/81 \times 2 = 0.46$	$37/81 \times 2 = 0.91$
3	$04/81 \times 1 = 0.04$	$21/81 \times 1 = 0.77$
Attainment	2.64	2.53
% attainment	$2.86/2.15 \times 100 = 133.02\%$	$2.26/2.15 \times 100 = 105.11\%$
Final attainment	$25/100 \times 2.86 + 75/100 \times 2.26 = 2.41$	

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

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**PUNE DISTRICT EDUCATION ASSOCIATION'S
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SASWAD, DIST-PUNE**

Attainment Calculations of course outcomes 2019-20

Subject: Pharmaceutical Microbiology (P)

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

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)	1	0.1
			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)	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	$76/81 \times 3 = 2.81$	$80/81 \times 3 = 2.96$
2	$05/81 \times 2 = 0.123$	$01/81 \times 2 = 0.02$
3	$00/81 \times 1 = 00$	$00/81 = 00$
Attainment	2.93	2.98
% attainment	$2.93/2.15 \times 100 = 136.27\%$	$2.98/2.15 \times 100 = 138.60\%$
Final attainment	$15/50 \times 2.93 + 35/50 \times 2.98 = 2.96$	

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

PUNE DISTRICT EDUCATION ASSOCIATION'S
SETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY
SASWAD, DIST-PUNE

Academic Year 2019-2020

Course code/ Course name		Course outcomes	Program outcomes										
			1	2	3	4	5	6	7	8	9	10	11
B. Pharmacy II Year (semester III)													
303 T Pharmaceutic al Microbiology	The students should be able to- CO 1. To learn basics, historicals, recent advances of microbiology and applications in pharmacy.	3	-	-	-	-	3	-	2	1			1
	CO 2. To know basic biology and characteristics of microbes' viz. Bacteria, Viruses yeast and moulds etc.	3	-	-	1	-	2	1	2	1	-		1
	CO 3. To understand bacterial Isolation and counting methods, Concept, causes, sources, types of microbial contamination and limit tests.	3	2	3	2	-	2	1.5	2	-	-		1
	CO 4. To study concept, need, types, mechanisms of Sterilization Sterility testing and effectiveness of various sterilization processes.	3	2	2	1	1.5	1	1	2	-	1		1
	CO 5. To study concept, need, classification, mechanism of action and evaluation of disinfectants.	3	2	2	1	-	2	1	2	2	2		1
	CO 6. To comprehend the basic aspects of Immunology, types of Immunity, Antigen Antibody reactions and their diagnostic use, types and preparation methods of vaccines.	3	2	2	1	1.5	2	1.5	2	2	2		1
	Average course outcomes =1.5	3	2	2.25	1.2	1.5	2	1.2	2	1.5	0.6		1
307 P Pharmaceutic al Microbiology	The students should be able to- CO 1. To understand the principle, construction and working of various instruments used for microbiology practicals and to learn handling of microscope.	3	-	-	-	-	-	-	-	-	-		1
	CO 2. To learn how to prepare and sterilize nutrient broth, nutrient agar, slants, stabs and plates and acquire the skills required for maintaining strictly aseptic condition & handling inoculating loop, its sterilization and inoculation procedure.	3	1	1	2	-	-	1	2	-	1		2
	CO 3. To learn Isolation of bacteria by various techniques, observe motility and study morphology of bacteria by staining methods viz. simple staining, negative staining & gram staining etc.	3	1	1	2	-	-	-	1	-	-		2
	CO 4. To carryout sterility testing of WFI, Antibiotic Assay and MIC.	3	-	1	1	-	-	-	-	-	-		1
	Average course outcomes = 1.43	3	1	1	1.5	-	-	1	1.5	-	1		1.5

Name and sign of subject teacher

Name and sign of HOD



PUNE DISTRICT EDUCATION ASSOCIATION'S
SETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY

SASWAD, DIST-PUNE

Academic Year 2019-2020

CO-PSO Matrix

Course code/ Course name	Course outcomes	Program specific outcomes				
		1	2	3	4	5
B. Pharmacy II Year (semester III)						
303 T Pharmaceutical Microbiology	The students should be able to- CO 1. To learn basics, historicals, recent advances of microbiology and applications in pharmacy.	3	-	-	-	-
	CO 2. To know basic biology and characteristics of microbes' viz. Bacteria, Viruses yeast and moulds etc.	3	-	-	1	-
	CO 3. To understand bacterial Isolation and counting methods, Concept, causes, sources, types of microbial contamination and limit tests.	3	2	3	2	-
	CO 4. To study concept, need, types, mechanisms of Sterilization Sterility testing and effectiveness of various sterilization processes.	3	2	2	1	1.5
	CO 5. To study concept, need, classification, mechanism of action and evaluation of disinfectants.	3	2	2	1	-
	CO 6. To comprehend the basic aspects of Immunology, types of Immunity, Antigen Antibody reactions and their diagnostic use, types and preparation methods of vaccines.	3	2	2	1	1.5
	Average course outcomes =2.05	3	2	2.25	1.5	1.5
307 P Pharmaceutical Microbiology	The students should be able to- CO 1. To understand the principle, construction and working of various instruments used for microbiology practicals and to learn handling of microscope.	3	-	-	1	-
	CO 2. To learn how to prepare and sterilize nutrient broth, nutrient agar, slants, stabs and plates and acquire the skills required for maintaining strictly aseptic condition & handling inoculating loop, its sterilization and inoculation procedure.	3	1	1	2	-
	CO 3. To learn Isolation of bacteria by various techniques, observe motility and study morphology of bacteria by staining methods viz. simple staining, negative staining & gram staining etc.	3	1	1	2	-
	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



**PUNE DISTRICT EDUCATION ASSOCIATION'S
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SASWAD, DIST-PUNE**

Attainment Calculations of course outcomes 2019-20

Subject: Pharmaceutical Microbiology (T)
(Sem.-III)

Class: Second Y. B. Pharm.

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.
1	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
Total students		81	81

Calculation for attainment:

Internal Examination

Sr. No.	Attainment	
	Internal Examination	University Examination
1	$58/81 \times 3 = 2.14$	$23/81 \times 3 = 0.85$
2	$19/81 \times 2 = 0.46$	$37/81 \times 2 = 0.91$
3	$04/81 \times 1 = 0.04$	$21/81 \times 1 = 0.77$
Attainment	2.64	2.53
% attainment	$2.86/2.15 \times 100 = 133.02\%$	$2.26/2.15 \times 100 = 105.11\%$
Final attainment	$25/100 \times 2.86 + 75/100 \times 2.26 = 2.41$	

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

**PUNE DISTRICT EDUCATION ASSOCIATION'S
SETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY
SASWAD, DIST-PUNE**

Attainment Calculations of course outcomes 2019-20

Subject: Pharmaceutical Microbiology (P)

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

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)	1	0.1
			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)	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	$76/81 \times 3 = 2.81$	$80/81 \times 3 = 2.96$
2	$05/81 \times 2 = 0.123$	$01/81 \times 2 = 0.02$
3	$00/81 \times 1 = 00$	$00/81 = 00$
Attainment	2.93	2.98
% attainment	$2.93/2.15 \times 100 = 136.27\%$	$2.98/2.15 \times 100 = 138.60\%$
Final attainment	$15/50 \times 2.93 + 35/50 \times 2.98 = 2.96$	

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

PUNE DISTRICT EDUCATION ASSOCIATION'S
SETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY
SASWAD, DIST-PUNE

Academic Year 2019-2020

Course code/ Course name	Course outcomes	Program outcomes										
		1	2	3	4	5	6	7	8	9	10	11
B. Pharmacy II Year (semester III)												
303 T Pharmaceutic al Microbiology	The students should be able to- CO 1. To learn basics, historicals, recent advances of microbiology and applications in pharmacy.	3	-	-	-	-	3	-	2	1		1
	CO 2. To know basic biology and characteristics of microbes' viz. Bacteria, Viruses yeast and moulds etc.	3	-	-	1	-	2	1	2	1	-	1
	CO 3. To understand bacterial Isolation and counting methods, Concept, causes, sources, types of microbial contamination and limit tests.	3	2	3	2	-	2	1.5	2	-	-	1
	CO 4. To study concept, need, types, mechanisms of Sterilization Sterility testing and effectiveness of various sterilization processes.	3	2	2	1	1.5	1	1	2	-	1	1
	CO 5. To study concept, need, classification, mechanism of action and evaluation of disinfectants.	3	2	2	1	-	2	1	2	2	2	1
	CO 6. To comprehend the basic aspects of Immunology, types of Immunity, Antigen Antibody reactions and their diagnostic use, types and preparation methods of vaccines.	3	2	2	1	1.5	2	1.5	2	2	2	1
	Average course outcomes =1.5	3	2	2.25	1.2	1.5	2	1.2	2	1.5	0.6	1
307 P Pharmaceutic al Microbiology	The students should be able to- CO 1. To understand the principle, construction and working of various instruments used for microbiology practicals and to learn handling of microscope.	3	-	-	-	-	-	-	-	-	-	1
	CO 2. To learn how to prepare and sterilize nutrient broth, nutrient agar, slants, stabs and plates and acquire the skills required for maintaining strictly aseptic condition & handling inoculating loop, its sterilization and inoculation procedure.	3	1	1	2	-	-	1	2	-	1	2
	CO 3. To learn Isolation of bacteria by various techniques, observe motility and study morphology of bacteria by staining methods viz. simple staining, negative staining & gram staining etc.	3	1	1	2	-	-	-	1	-	-	2
	CO 4. To carryout sterility testing of WFI, Antibiotic Assay and MIC.	3	-	1	1	-	-	-	-	-	-	1
	Average course outcomes = 1.43	3	1	1	1.5	-	-	1	1.5	-	1	1.5

Name and sign of subject teacher

Name and sign of HOD



PUNE DISTRICT EDUCATION ASSOCIATION'S
SETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY

SASWAD, DIST-PUNE

Academic Year 2019-2020

CO-PSO Matrix

Course code/ Course name	Course outcomes	Program specific outcomes				
		1	2	3	4	5
B. Pharmacy II Year (semester III)						
303 T Pharmaceutical Microbiology	The students should be able to- CO 1. To learn basics, historicals, recent advances of microbiology and applications in pharmacy.	3	-	-	-	-
	CO 2. To know basic biology and characteristics of microbes' viz. Bacteria, Viruses yeast and moulds etc.	3	-	-	1	-
	CO 3. To understand bacterial Isolation and counting methods, Concept, causes, sources, types of microbial contamination and limit tests.	3	2	3	2	-
	CO 4. To study concept, need, types, mechanisms of Sterilization Sterility testing and effectiveness of various sterilization processes.	3	2	2	1	1.5
	CO 5. To study concept, need, classification, mechanism of action and evaluation of disinfectants.	3	2	2	1	-
	CO 6. To comprehend the basic aspects of Immunology, types of Immunity, Antigen Antibody reactions and their diagnostic use, types and preparation methods of vaccines.	3	2	2	1	1.5
	Average course outcomes =2.05	3	2	2.25	1.5	1.5
307 P Pharmaceutical Microbiology	The students should be able to- CO 1. To understand the principle, construction and working of various instruments used for microbiology practicals and to learn handling of microscope.	3	-	-	1	-
	CO 2. To learn how to prepare and sterilize nutrient broth, nutrient agar, slants, stabs and plates and acquire the skills required for maintaining strictly aseptic condition & handling inoculating loop, its sterilization and inoculation procedure.	3	1	1	2	-
	CO 3. To learn Isolation of bacteria by various techniques, observe motility and study morphology of bacteria by staining methods viz. simple staining, negative staining & gram staining etc.	3	1	1	2	-
	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



**PUNE DISTRICT EDUCATION ASSOCIATION'S
SETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY
SASWAD, DIST-PUNE**

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:

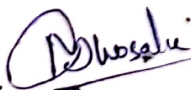
Sr. No.	Criteria for target level	No. of students	
		Internal Exam.	University Exam.
1	25% students scored >65% marks (25/100x3)	59	17
2	65% students scored 55-65% marks (65/100x2)	04	35
3	10% students scored <55% marks (10/100x1)	04	15
Total students		67	67

Calculation for attainment:

Internal Examination

Sr. No.	Attainment	
	Internal Examination	University Examination
1	$59/67 \times 3 = 2.73$	$17/67 \times 3 = 0.67$
2	$04/67 \times 2 = 0.059$	$35/67 \times 2 = 1.10$
3	$04/67 \times 1 = 0.059$	$15/67 \times 1 = 0.22$
Attainment	2.92	1.09
% attainment	$2.92/2.15 \times 100 = 132.09\%$	$1.09/2.15 \times 100 = 92.55\%$
Final attainment	$25/100 \times 2.92 + 75/100 \times 1.09 = 2.40$	

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


PUNE DISTRICT EDUCATION ASSOCIATION'S
SETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY

SASWAD, DIST-PUNE

Academic Year 2021-22

CO-PO Matrix

Course code/ Course name	Course outcomes	Program outcomes										
		1	2	3	4	5	6	7	8	9	10	11
B. Pharmacy IV Year (VIII semester system)												
BP809ET COSMETIC SCIENCE	The students should be able to- 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	3	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	3	1	2.6	2.3	2.5	2	2	3	-	1.3	2.2
	PO attainment	2.65	0.88	2.29	2.03	2.20	1.76	1.76	2.65	-	1.14	1.98


Name and Sign of Subject Teacher



Name and Sign of HOD

PUNE DISTRICT EDUCATION ASSOCIATION'S
SETH GOVIND RAGHUNATH SABLE COLLEGE OF PHARMACY
SASWAD, DIST-PUNE

Academic Year 2021-22

CO-PSO Matrix

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


Name and Sign of Subject Teacher


Name and Sign of HOD