

CO-PO REPORT OF CHEMISTRY (SF)

Sl. No.	Course Code	Name of Course	Teacher- in- charge
1	CC19PCHE2C05	Group theory and Chemical Bonding	Greeni K I Famy francis
2	CC19PCHE2C06	Coordination Chemistry	Krishnapriya.K.M Famy francis Anjaly Gopinadhan
3	CC19PCHE2C07	Reaction mechanism in organic chemistry	Rosemol Dr. Bhagyesh .V.B
4	CC19PCHE2C08	Electrochemistry, solid state chemistry and statistical thermodynamics	Krishnapriya.K.M Rosemol Anjaly Gopinadhan
5	CC19PCHE1L01 & CC19PCHE2L04	Inorganic chemistry Practical	Greeni K I
6	CC19PCHE1L02 & CC19PCHE2L05	Organic chemistry Practical	Dr. Bhagyesh .V.B
7	CC19PCHE1L03 & CC19PCHE2L06	Physical chemistry Practical	Anjaly Gopinadhan



CHRIST COLLEGE (AUTONOMOUS)
IRINJALAKUDA.Kerala-680125

Program(s) : PG - MSC - M.Sc. Chemistry (Self Financing)	Department(s) : CHEMISTRY',CHEMISTRY SF	Batch(s) : MSC CHE SF 2022 - S2
Course Community : CC19PCHE2C05 MSC CHE SF 2022 S2	Faculty(s) : Greeni K I',Famy francis	Course : Group Theory and Chemical Bonding

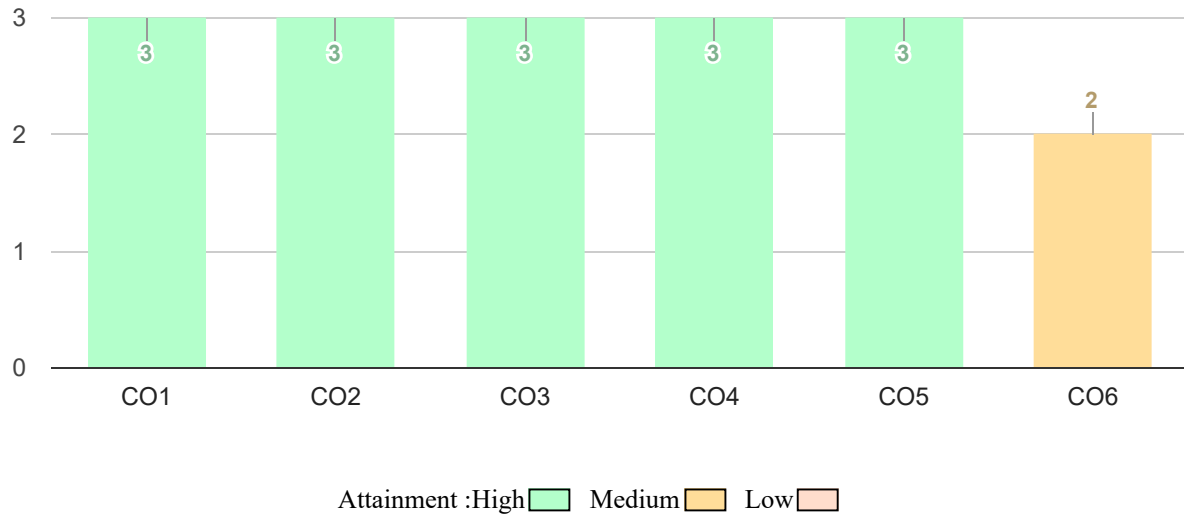
CO PO ATTAINMENT Report

Above Target Percentage : Below Target Percentage:

#	Reg No	Student Name	CO1	CO2	CO3	CO4	CO5	CO6
1	CCAWMCH015	AKSHAYA RAMACHANDRAN	99.58	99.58	99.58	99.58	99.58	99.58
2	CCAWMCH016	AMRUTHA P.N.	91.47	100	100	100	100	100
3	CCAWMCH017	ANJITHA T V	100	100	100	96.8	100	48.8
4	CCAWMCH018	ANN MARIYA K P	99.71	35.71	87.9	99.71	99.71	80.51
5	CCAWMCH019	ANUGRAHA C.R	86.47	48.61	95.24	29.14	99.81	93.41
6	CCAWMCH020	APARNA P R	80.22	79.96	94.85	86.62	99.42	28.76
7	CCAWMCH021	JIYA K J	79.84	67.04	78.68	31.84	79.84	41.44
8	CCAWMCH022	JIYA SHAJU	87.2	93.33	77.79	93.33	88.53	93.33
9	CCAWMCH023	KEERTHANA SURESH	100	87.2	100	100	100	100
10	CCAWMCH024	NAMITHA HYDROSE	80.64	99.84	86.13	99.84	99.84	41.97
11	CCAWMCH025	NIVEDYA N	80.53	42.13	97.26	100	85.33	93.33
12	CCAWMCH026	SAHLA.S.S	100	100	100	100	100	61.6
13	CCAWMCH027	SREELAKSHMI K P	99.84	87.04	97	99.84	99.84	74.24
14	CCAWMCH028	SUMAYYA M S	95.61	99.87	95.3	74.27	99.87	35.87

Class Strength	14					
Course Outcomes addressed	CO1	CO2	CO3	CO4	CO5	CO6
Target of Course Outcome	60	60	60	60	60	60
No of students with CO value greater than or equal to 60	14	11	14	12	14	9
Percentage of students with CO value greater than 60	100	78.57	100	85.71	100	64.29
Average	91.51	81.45	93.55	86.5	96.56	70.92
Attainment Level	3.00	3.00	3.00	3.00	3.00	2.00
Attainment :High ■ Medium ■ Low ■						

CO Attainment Levels



CO List	
CO Code	Description
CO1	Analyze molecule in 3-D, describe the concept of symmetry elements and symmetry operations.
CO2	Examine the point groups of molecules and apply symmetry considerations for optical activity and dipole moment.
CO3	Examine and demonstrate the group multiplication table, character table and representations of group.
CO4	Apply the projection operator for constructing SALCs
CO5	Integrate application of symmetry to spectroscopy and find IR and Raman mode of vibration.
CO6	Applications of MO & VB theories and Huckel M.O. calculations.



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Program(s) : PG - MSC - M.Sc. Chemistry (Self Financing)	Department(s) : CHEMISTRY',CHEMISTRY SF	Batch(s) : MSC CHE SF 2022 - S2
Course Community : CC19PCHE2C06 MSC CHE SF 2022 S2	Faculty(s) : Krishnapriya.K.M',Famy francis',Anjaly Gopinadhan	Course : Coordination Chemistry

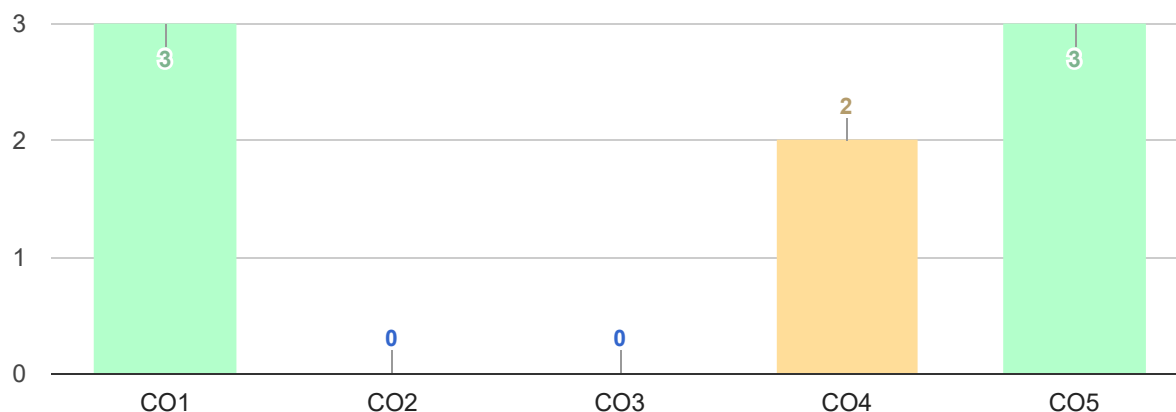
CO PO ATTAINMENT Report

Above Target Percentage : Below Target Percentage:

#	Reg No	Student Name	CO1	CO2	CO3	CO4	CO5
1	CCAWMCH015	AKSHAYA RAMACHANDRAN	97.63	67.92	19.92	78.59	92.81
2	CCAWMCH016	AMRUTHA P.N.	98.92	50.92	18.92	90.92	82.92
3	CCAWMCH017	ANJITHA T V	92.73	57.33	84	92	96
4	CCAWMCH018	ANN MARIYA K P	89.8	19.4	19.4	75.4	97.62
5	CCAWMCH019	ANUGRAHA C.R	95.84	31.84	19.84	93.44	71.4
6	CCAWMCH020	APARNA P R	93.6	20	20	80.8	89.33
7	CCAWMCH021	JIYA K J	77.6	52	20	71.2	82.22
8	CCAWMCH022	JIYA SHAJU	69.33	19.2	19.2	59.2	79.64
9	CCAWMCH023	KEERTHANA SURESH	97.63	99.92	19.92	83.92	82.14
10	CCAWMCH024	NAMITHA HYDROSE	63.89	58.8	18.8	34.8	75.69
11	CCAWMCH025	NIVEDYA N	72.74	47.72	34.92	30.92	72.25
12	CCAWMCH026	SAHLA.S.S	85.89	83.76	19.76	45.36	97.98
13	CCAWMCH027	SREELAKSHMI K P	80.8	36	20	77.6	94.67
14	CCAWMCH028	SUMAYYA M S	80.17	35.6	19.6	54.27	97.82

Class Strength	14				
Course Outcomes addressed	CO1	CO2	CO3	CO4	CO5
Target of Course Outcome	60	60	60	60	60
No of students with CO value greater than or equal to 60	14	3	1	9	14
Percentage of students with CO value greater than 60	100	21.43	7.14	64.29	100
Average	85.47	48.6	25.31	69.17	86.61
Attainment Level	3.00	0	0	2.00	3.00
Attainment :High ■ Medium ■ Low ■					

CO Attainment Levels



Attainment :High ■ Medium ■ Low ■

CO List	
CO Code	Description
CO1	Analyze the effect of various ligand field strengths on d-metal ions.
CO2	Analyze the electronic spectra of complexes with respect to spin and orbital selection rules, various transitions and charge transfer spectra
CO3	Determine the magnetic properties of complexes.
CO4	Compare the methods for distinguishing between outer and inner sphere redox reactions
CO5	Justify the substitution lability in complex reactions.



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Program(s) : PG - MSc - M.Sc. Chemistry (Self Financing)	Department(s) : CHEMISTRY', 'CHEMISTRY SF	Batch(s) : MSC CHE SF 2022 - S2
Course Community : CC19PCHE2C07 MSC CHE SF 2022 S2	Faculty(s) : Rosemol', 'Dr. BHAGYESH .V.B	Course : Reaction Mechanism in Organic Chemistry

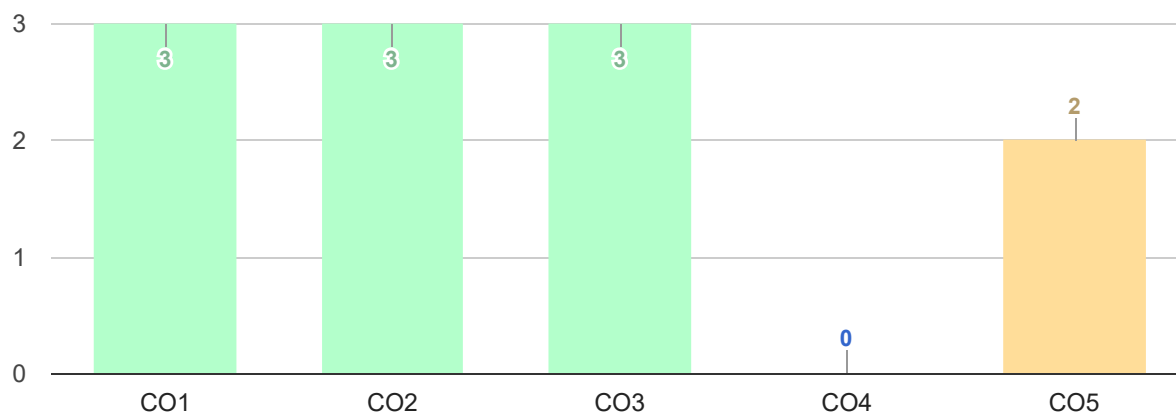
CO PO ATTAINMENT Report

Above Target Percentage : Below Target Percentage:

#	Reg No	Student Name	CO1	CO2	CO3	CO4	CO5
1	CCAWMCH015	AKSHAYA RAMACHANDRAN	91.79	77.86	35.62	35.62	99.62
2	CCAWMCH016	AMRUTHA P.N.	79.78	67.73	100	29.33	93.33
3	CCAWMCH017	ANJITHA T V	97.16	90.86	36	74.4	29.33
4	CCAWMCH018	ANN MARIYA K P	89.96	80	99.2	28.53	48
5	CCAWMCH019	ANUGRAHA C.R	66.55	72.25	99.68	89.81	67.41
6	CCAWMCH020	APARNA P R	78.03	83.55	73.76	35.36	28.69
7	CCAWMCH021	JIYA K J	77.86	81.23	99.52	35.52	61.12
8	CCAWMCH022	JIYA SHAJU	66.17	81.71	87.2	68.91	61.6
9	CCAWMCH023	KEERTHANA SURESH	72.41	90.7	99.84	73.97	93.17
10	CCAWMCH024	NAMITHA HYDROSE	69.51	64.67	97.95	59.55	20.62
11	CCAWMCH025	NIVEDIYA N	70.25	71.01	92.95	28.95	92.95
12	CCAWMCH026	SAHLA.S.S	90.7	73.63	99.23	35.23	35.23
13	CCAWMCH027	SREELAKSHMI K P	52.71	81.73	99.65	35.65	75.33
14	CCAWMCH028	SUMAYYA M S	74.4	90.86	100	36	84.64

Class Strength	14				
Course Outcomes addressed	CO1	CO2	CO3	CO4	CO5
Target of Course Outcome	60	60	60	60	60
No of students with CO value greater than or equal to 60	13	14	12	4	9
Percentage of students with CO value greater than 60	92.86	100	85.71	28.57	64.29
Average	76.95	79.13	87.19	47.63	63.65
Attainment Level	3.00	3.00	3.00	0	2.00
Attainment :High ■ Medium ■ Low ■					

CO Attainment Levels



Attainment :High ■ Medium ■ Low ■

CO List	
CO Code	Description
CO1	Develop an ability to understand addition and elimination reactions with mechanism and stereo chemical aspect
CO2	Compare aliphatic and aromatic, nucleophilic and electrophilic substitution with mechanism and kinetics
CO3	Implement the theory of pericyclic reactions to get an idea about the orbital overlap in chemical reaction.
CO4	Analyze photochemical reactions with mechanism.
CO5	Compare the classification, structure and synthesis of natural products.



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Course Community : CC19PCHE2C08 MSC CHE SF 2022 S2	Faculty(s) : Krishnapriya.K.M', 'Rosemol', 'Anjaly Gopinadhan	Course : Electrochemistry, Solid-state Chemistry and Statistical Thermodynamics

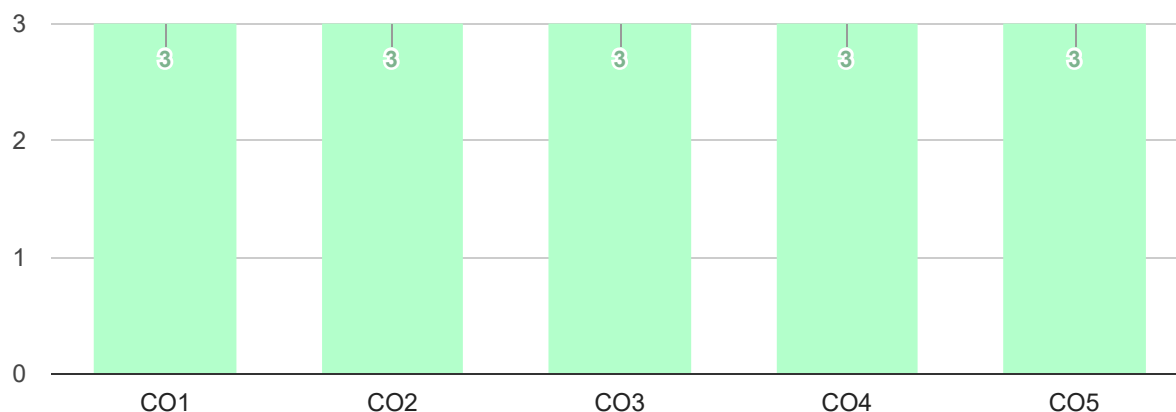
CO PO ATTAINMENT Report

Above Target Percentage : Below Target Percentage:

#	Reg No	Student Name	CO1	CO2	CO3	CO4	CO5
1	CCAWMCH015	AKSHAYA RAMACHANDRAN	93.6	80.8	100	100	96.51
2	CCAWMCH016	AMRUTHA P.N.	92.95	80.15	74.02	35.62	88.1
3	CCAWMCH017	ANJITHA T V	29.33	80.53	86.67	87.2	87.2
4	CCAWMCH018	ANN MARIYA K P	40.92	79.32	98.78	94.52	74.2
5	CCAWMCH019	ANUGRAHA C.R	99.3	54.23	99.3	72.72	63.83
6	CCAWMCH020	APARNA P R	100	100	87.2	85.78	72.3
7	CCAWMCH021	JIYA K J	92.6	90.73	75.26	67	73.66
8	CCAWMCH022	JIYA SHAJU	99.68	48.48	75.68	58.08	85.05
9	CCAWMCH023	KEERTHANA SURESH	93.08	93.08	99.74	75.74	75.62
10	CCAWMCH024	NAMITHA HYDROSE	66.72	48.27	58.72	28.05	39.88
11	CCAWMCH025	NIVEDYA N	92.85	86.45	80.05	41.65	60.59
12	CCAWMCH026	SAHLA.S.S	100	74.13	100	61.33	77.69
13	CCAWMCH027	SREELAKSHMI K P	35.84	90.7	74.24	80.64	76.98
14	CCAWMCH028	SUMAYYA M S	92.5	58.37	75.17	91.17	99.17

Class Strength	14				
Course Outcomes addressed	CO1	CO2	CO3	CO4	CO5
Target of Course Outcome	60	60	60	60	60
No of students with CO value greater than or equal to 60	11	10	13	10	13
Percentage of students with CO value greater than 60	78.57	71.43	92.86	71.43	92.86
Average	80.67	76.09	84.63	69.96	76.48
Attainment Level	3.00	3.00	3.00	3.00	3.00
Attainment :High ■ Medium ■ Low ■					

CO Attainment Levels



Attainment :High ■ Medium ■ Low ■

CO List	
CO Code	Description
CO1	Examine Debye –Huckel equation, limiting and extended forms and its application
CO2	Compare the efficiency of different electro chemical cells
CO3	Analyze symmetry elements, symmetry operations and crystal systems.
CO4	Discuss the electrical, thermal, magnetic and optical properties of solids
CO5	Distinguish the importance and consequences of quantum mechanics for macroscopic particle systems



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Course Community : CC19PCHE1L01 & CC19PCHE2L04 MSC CHE SF 2022 S2	Faculty(s) : Greeni K I	Course : Inorganic Chemistry Practical

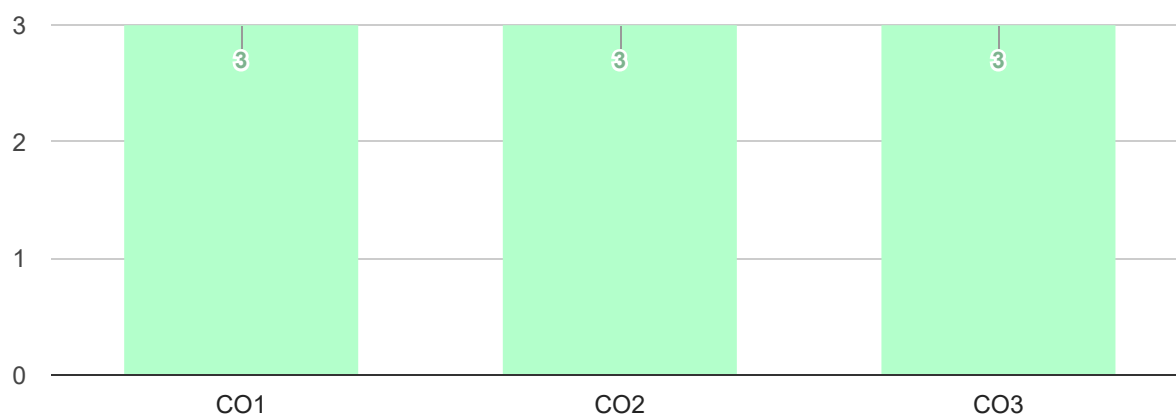
CO PO ATTAINMENT Report

Above Target Percentage : Below Target Percentage:

#	Reg No	Student Name	CO1	CO2	CO3
1	CCAWMCH015	AKSHAYA RAMACHANDRAN	100	100	100
2	CCAWMCH016	AMRUTHA P.N.	100	100	100
3	CCAWMCH017	ANJITHA T V	100	100	100
4	CCAWMCH018	ANN MARIYA K P	98.29	84.96	98.29
5	CCAWMCH019	ANUGRAHA C.R	92.32	92.32	92.32
6	CCAWMCH020	APARNA P R	93.17	86.51	93.17
7	CCAWMCH021	JIYA K J	80	80	80
8	CCAWMCH022	JIYA SHAJU	93.33	93.33	93.33
9	CCAWMCH023	KEERTHANA SURESH	100	100	100
10	CCAWMCH024	NAMITHA HYDROSE	100	100	100
11	CCAWMCH025	NIVEDYA N	100	100	100
12	CCAWMCH026	SAHLA.S.S	100	100	100
13	CCAWMCH027	SREELAKSHMI K P	100	100	100
14	CCAWMCH028	SUMAYYA M S	100	100	100

Class Strength	14		
Course Outcomes addressed	CO1	CO2	CO3
Target of Course Outcome	60	60	60
No of students with CO value greater than or equal to 60	14	14	14
Percentage of students with CO value greater than 60	100	100	100
Average	96.94	95.51	96.94
Attainment Level	3.00	3.00	3.00
Attainment :High ■ Medium ■ Low ■			

CO Attainment Levels



Attainment :High ■ Medium ■ Low ■

CO List	
CO Code	Description
CO1	Analyze the cation mixture
CO2	Assess the amount of ions by complexometric titrations
CO3	Detect the intensity of colour using colorimetric methods



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Course Community : CC19PCHE1L02 & CC19PCHE2L05 MSC CHE SF 2022 S2	Faculty(s) : Dr. BHAGYESH .V.B	Course : Organic Chemistry Practical

CO PO ATTAINMENT Report

Above Target Percentage : Below Target Percentage:

#	Reg No	Student Name	CO1	CO2	CO3	CO4
1	PGCMSF4	GAYATHRI MOHAN T K	0	0	0	0
2	CCAWMCH015	AKSHAYA RAMACHANDRAN	96.59	96.59	96.59	96.59
3	CCAWMCH016	AMRUTHA P.N.	78.29	78.29	78.29	78.29
4	CCAWMCH017	ANJITHA T V	98.29	98.29	98.29	98.29
5	CCAWMCH018	ANN MARIYA K P	96.59	96.59	96.59	96.59
6	CCAWMCH019	ANUGRAHA C.R	100	100	100	100
7	CCAWMCH020	APARNA P R	91.63	98.29	98.29	79.63
8	CCAWMCH021	JIYA K J	100	93.33	93.33	81.33
9	CCAWMCH022	JIYA SHAJU	96.59	96.59	96.59	96.59
10	CCAWMCH023	KEERTHANA SURESH	97.44	97.44	97.44	97.44
11	CCAWMCH024	NAMITHA HYDROSE	99.15	99.15	99.15	99.15
12	CCAWMCH025	NIVEDYA N	98.29	98.29	91.63	79.63
13	CCAWMCH026	SAHLA.S.S	99.15	99.15	99.15	99.15

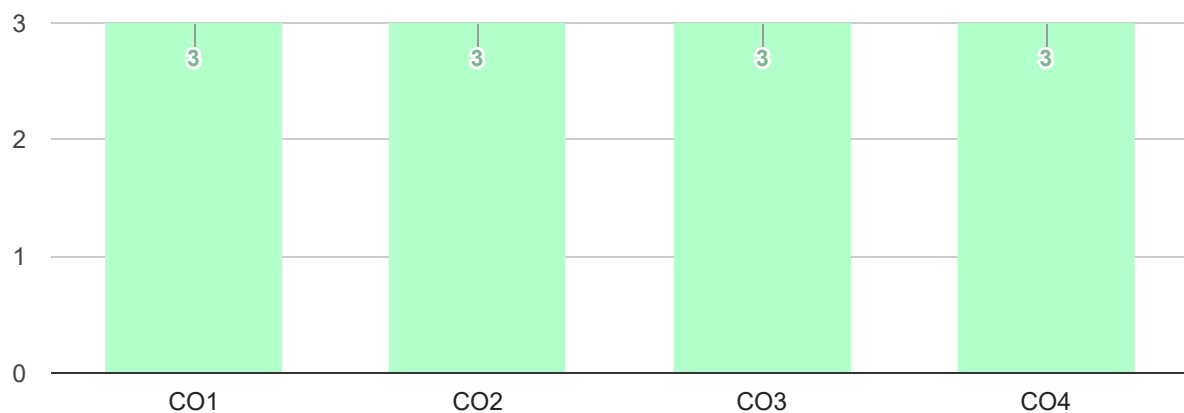
CO PO ATTAINMENT Report

Above Target Percentage : ■ Below Target Percentage: ■

#	Reg No	Student Name	CO1	CO2	CO3	CO4
14	CCAWMCH027	SREELAKSHMI K P	98.29	98.29	98.29	98.29
15	CCAWMCH028	SUMAYYA M S	78.29	78.29	78.29	78.29

Class Strength	14			
Course Outcomes addressed	CO1	CO2	CO3	CO4
Target of Course Outcome	60	60	60	60
No of students with CO value greater than or equal to 60	14	14	14	14
Percentage of students with CO value greater than 60	93.33	93.33	93.33	93.33
Average	88.57	88.57	88.13	85.28
Attainment Level	3.00	3.00	3.00	3.00
Attainment :High ■ Medium ■ Low ■				

CO Attainment Levels



Attainment :High■ Medium■ Low■

CO List	
CO Code	Description
CO1	Separate the mixture of organic compounds
CO2	Analyze the compounds separated from the mixture by chemical analysis
CO3	Detect the melting and boiling points of the compounds
CO4	Apply the principles for the preparation of organic compounds by two or three steps



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Course Community : CC19PCHE1L03 & CC19PCHE2L06 MSC CHE SF 2022 S2	Faculty(s) : Anjaly Gopinadhan	Course : Physical Chemistry Practical

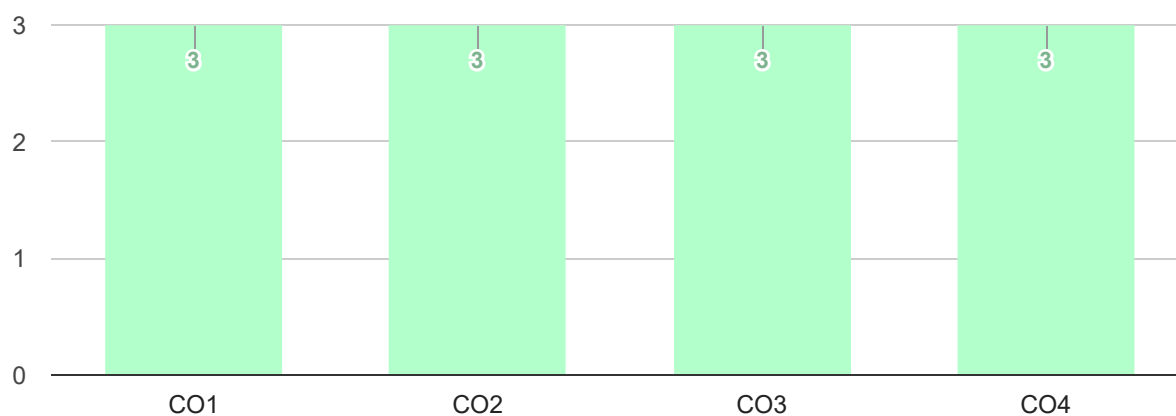
CO PO ATTAINMENT Report

Above Target Percentage : Below Target Percentage:

#	Reg No	Student Name	CO1	CO2	CO3	CO4
1	CCAWMCH015	AKSHAYA RAMACHANDRAN	100	100	100	100
2	CCAWMCH016	AMRUTHA P.N.	100	100	100	100
3	CCAWMCH017	ANJITHA T V	97.87	97.87	97.87	97.87
4	CCAWMCH018	ANN MARIYA K P	100	100	100	100
5	CCAWMCH019	ANUGRAHA C.R	100	100	100	100
6	CCAWMCH020	APARNA P R	100	100	100	100
7	CCAWMCH021	JIYA K J	100	100	100	100
8	CCAWMCH022	JIYA SHAJU	100	100	100	100
9	CCAWMCH023	KEERTHANA SURESH	100	100	100	100
10	CCAWMCH024	NAMITHA HYDROSE	100	100	100	100
11	CCAWMCH025	NIVEDYA N	100	100	100	100
12	CCAWMCH026	SAHLA.S.S	98.93	98.93	98.93	98.93
13	CCAWMCH027	SREELAKSHMI K P	100	100	100	100
14	CCAWMCH028	SUMAYYA M S	100	100	100	100

Class Strength	14			
Course Outcomes addressed	CO1	CO2	CO3	CO4
Target of Course Outcome	60	60	60	60
No of students with CO value greater than or equal to 60	14	14	14	14
Percentage of students with CO value greater than 60	100	100	100	100
Average	99.77	99.77	99.77	99.77
Attainment Level	3.00	3.00	3.00	3.00
Attainment :High ■ Medium ■ Low ■				

CO Attainment Levels



Attainment :High ■ Medium ■ Low ■

CO List	
CO Code	Description
CO1	Examine the working and application of Potentiometer, conductivity meter, viscometer and refractometer
CO2	Compare the relation of solubility with molar heat of solution
CO3	Examine the distribution law
CO4	Analyze the principles behind the experiment performed in the laboratory.