

Progressive Education Society's
**Modern College of Arts, Science and
Commerce,**
Shivajinagar, Pune 5
(An Autonomous College Affiliated to Savitribai Phule Pune University)

Framework of Syllabus

For

M.Sc. (Analytical Chemistry)

(2019-20 Course)

(with effect from 2019-20)

CIA:Continuous Internal Evaluation

Semester 1 (Part I)

Course Type	Course Code	Course / Paper Title	Hours / Week	Credit	CIA	End Sem Exam	Total
CCT-1	19ScCheP101	Fundamentals of Physical Chemistry-I	5	4	50	50	100
CCT-2	19ScCheP102	Molecular Symmetry & Chemistry of p-block elements	5	4	50	50	100
CCT-3	19ScCheP103	Basic Organic Chemistry	5	4	50	50	100
DSET-1	19ScCheP104	Green Chemistry Principles and Geochemical Analysis	5	4	50	50	100
	19ScCheP105	Environmental Chemistry					
CCP-1	19ScCheP106	Practical Course I	5	4	50	50	100
Extra Credit Courses							
AECCT-1	19CpCysP101	Cyber Security-I	1	1	-	-	25
AECCT-2	19CpHrtP102	Human Rights-I	1	1	-	-	25
Total			27	22	280	420	700

Semester 2 (Part I)

Course Type	Course Code	Course / Paper Title	Hours / Week	Credit	CIA	End Sem Exam	Total
CCT-4	19ScCheP201	Fundamentals of Physical Chemistry-II	5	4	50	50	100
CCT-5	19ScCheP202	Coordination and Bioinorganic Chemistry	5	4	50	50	100
CCT-6	19ScCheP203	Synthetic organic chemistry and Spectroscopy	5	4	50	50	100
DSEP-2	19ScCheP204	Sophisticated Instrumentation and Sensor Based Techniques	5	4	50	50	100
	19ScCheP205	Textural and Microscopic Material Characterization Techniques					
CCP-2	19ScCheP206	Practical Course II	5	4	50	50	100
Extra Credit Courses							
AECCT-3	19CpCysP201	Cyber Security-II	1	1	-	-	25
AECCT-4	19CpHrtP202	Human Rights-II	1	1	-	-	25
Total			27	22	280	420	700

Semester 3 (Part II)

Course Type	Course Code	Course / Paper Title	Hours / Week	Credit	CIA	End Sem Exam	Total
CCT-7	19ScCheP301	Electro analytical and Radio analytical methods of analysis	5	4	50	50	100
CCT-8	19ScCheP302	Pharmaceutical Analysis	5	4	50	50	100
CCT-9	19ScCheP303	Advanced analytical Techniques	5	4	50	50	100
Elective – I (Any one of the following two)							
DSEP-3	19ScCheP304	Photochemistry, Free Radical and Pericyclic Reactions	5	4	50	50	100
	19ScCheP305	Photochemical Reactions					
CCP-3	19ScCheP306	Practical Course III	5	4	50	50	100
Extra Credit Courses							

AECCT-5	19CpCysP301	Cyber Security-III	1	1	-	-	25
AECCT-6	19CpSkdP302	Skill Development-I	2	2	-	-	50
Total			27	22	280	420	700

Semester 4 (Part II)

Course Type	Course Code	Course / Paper Title	Hours / Week	Credit	CIA	End Sem Exam	Total
CCT-10	19ScCheP401	Analytical Toxicology and Food Analysis	5	4	50	50	100
CCT-11	19ScCheP402	Analytical spectroscopy	5	4	50	50	100
CCT-12	19ScCheP403	Analytical methods for analysis of fertilizers, detergents, water and Polymer, Paint and pigment	5	4	50	50	100
Elective – I (Any one of the following two)							
DSEP-4	19ScCheP404	Advance Structural Elucidation Techniques	5	4	50	50	100
	19ScCheP405	Medical and Drug Chemistry					
CCP-4	19ScCheP406	Practical Course IV	5	4	50	50	100
Extra Credit Courses							
AECCT-5	19CpCysP401	Cyber Security-III	1	1	-	-	25
AECCT-6	19CpSkdP402	Skill Development-I	2	2	-	-	50
Total			27	22	280	420	700