

SCHEME OF SYLLABUS & EXAMINATION



NALLAMUTHU GOUNDER MAHALINGAM COLLEGE, POLLACHI

(Autonomous, Affiliated to Bharathiar University)
Accredited by NAAC, An ISO 9001: 2015 institution



SEMESTER - I

Semester	Subject Code	Title of the Paper	Hrs / Week		Hrs / Sem.	Exam Hrs.	Maximum Marks		Total Marks	Credits
			L	P	T		Internal	External		
I	21PCY101	Inorganic Chemistry –I- Solid State and Nuclear Chemistry	5	--	75	3	50	50	100	4
	21PCY102	Organic Chemistry – I- Reactions and Mechanisms	5	--	75	3	50	50	100	5
	21PCY103	Physical Chemistry –I- Group Theory and Chemical Kinetics	5	--	75	3	50	50	100	5
	21PCY207	Inorganic Chemistry Practical-I	--	5	75	--	--	--	--	--
	21PCY208	Organic Chemistry Practical-I	--	5	75	--	--	--	--	--
	21PCY209	Physical Chemistry Practical –I	--	5	75	--	--	--	--	--
Total			15	15	450	9	150	150	300	14

SEMESTER - II

Semester	Subject Code	Title of the Paper	Hrs / Week		Hrs / Sem.	Exam Hrs.	Maximum Marks		Total Marks	Credits
			L	P	T		Internal	External		
II	21PCY204	Inorganic Chemistry –II- Coordination and Organometallic Chemistry	5	--	75	3	50	50	100	4
	21PCY205	Organic Chemistry-II –Organic Reactions and Stereochemistry	5	--	75	3	50	50	100	5
	21PCY206	Physical Chemistry-II – Quantum and Electrochemistry	5	--	75	3	50	50	100	4
	21PCY2EA	*Major Elective –I – Green, Nanochemistry & Cyber Security	3	--	45	3	50	50	100	3
	21PCY2EB	*Food Science and Technology								
	21PCY2EC	* Advanced Polymeric Materials								
	21PCY2N	*Non Major Elective Chemistry in day to day life	2		30	3	50	50	100	2
	21PCY207	Inorganic Chemistry Practical -I	--	4	60	6	50	50	100	4
	21PCY208	Organic Chemistry Practical-I	--	3	45	6	50	50	100	4
	21PCY209	Physical Chemistry Practical -I	--	3	45	6	50	50	100	4
Total			20	10	450	33	400	400	800	30

SEMESTER - III

Semester	Subject Code	Title of the Paper	Hrs / Week		Hrs / Sem.	Exam Hrs.	Maximum Marks		Total Marks	Credits
			L	P	T		Internal	External		
III	21PCY310	Organic Chemistry –III– Natural Products and Organic Reagents	5		75	3	50	50	100	5
	21PCY311	Physical Chemistry –III –Classical and Statistical Thermodynamics	5		75	3	50	50	100	4
	21PCY312	Spectroscopic Techniques – Application in Organic Chemistry	5		75	3	50	50	100	5
	21PCY3EA	Major Elective -II – Applied Electrochemistry								
	21PCY3EB	* Nanoscience and Nanotechnology	3		45	3	50	50	100	3
	21PCY3EC	*Dye chemistry								
	20PCY415	Inorganic Chemistry Practical-II	--	4	60	--	--	--	--	--
	20PCY416	Organic Chemistry Practical–II	--	4	60	--	--	--	--	--
	20PCY417	Physical Chemistry Practical–II	--	4	60	--	--	--	--	--
Total			18	12	450	12	200	200	400	17

SEMESTER - IV										
Semester	Subject Code	Title of the Paper	Hrs / Week		Hrs / Sem.	Exam Hrs.	Maximum Marks		Total Marks	Credits
			L	P	T		Internal	External		
IV	21PCY413	Inorganic Chemistry –III- Bioinorganic and Inorganic Photochemistry	5	--	75	3	50	50	100	5
	21PCY414	Analytical Techniques	5	--	75	3	50	50	100	4
	21PCY4EA	*Major Elective –III-Medicinal Chemistry	3		45	3	50	50	100	3
	21PCY4EB	*Computational Chemistry								
	21PCY4EC	*Green Chemistry								
	21PCY415	Inorganic Chemistry Practical-II	--	5	75	6	50	50	100	4
	21PCY416	Organic Chemistry Practical-II	--	5	75	6	50	50	100	4
	21PCY417	Physical Chemistry Practical –II	--	5	75	6	50	50	100	4
	21PCY418	Project Work & Viva Voce	--	-	-	6	50	50	100	5
		Library	2							
* Students can choose any one of the papers as electives										
Total			15	15	420	33	350	350	700	29
Grand Total (Total Marks + Total Credits)									2200	90

Programme code:	M.Sc.			Programme Title :		Master of Chemistry	
Course Code:	21PCY418			Project Work & Viva-Voce		Batch	2021-2023
						Semester	IV
Lecture Hrs/Week:	-	Tutorial	-	Total Hrs/Sem	-	Credits:	5
Course Objective							
* Make the students to understand the importance of experimental analysis, scientific approach in solving problems related to the environment and society.							
* Educate and train the students to write scientific papers.							

Course Outcomes (CO)

On the successful completion of the course, students will be able to

#	Course Outcomes (CO)	Knowledge Level
CO1	Apply the various preliminary skills in laboratory.	K3
CO2	Analyze the various sources of literature review.	K4
CO3	Evaluate the various techniques from the previous studies.	K5
CO4	Apply the suitable parameters in the project work.	K5
CO5	Synthesis the various organic, nano and co-ordination compounds	K6
K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 – Evaluate		

Individual Project and Viva Voce

- Each faculty will be allotted 4/5 students.
- The topic/area of work will be finalized at the end of III semester, allowing scope for the students to gather relevant literature during the vacation.
- The research work can be carried out in the college or at any other organization approved by the College.
- Viva Voce/Power point presentation will be conducted by a panel comprising of HOD, internal / external examiners.

Research Areas

Synthetic Organic Chemistry, Coordination Chemistry, Phytochemistry, Surface Chemistry and Nanochemistry, etc.,

Methodology

Each project should contain Introduction, Review of Literature, Materials and Methods, Results and Discussions – evidences in the form of figures, tables and photographs, Summary and Bibliography

Evaluation - Total - 100 Marks (Internal – 50 marks, External – 50 marks)

Internal

Total – 50 marks

Review		Marks
I	Selection of the field of study, Topic & Literature collection	50
II	Research Design and Data Collection	
III	Analysis & Conclusion, Preparation of rough draft	
IV	Paper Presentation in National / International Conference (Or) Paper Publication in UGC Care list Journals	

RULES GOVERNING THE EVALUATION OF PROJECT REPORT AND VIVA

VOCE

1. SELECTION OF TOPIC:

Each student shall select a topic for his / her project in consultation with his / her Guide and the Head of the Department.

2. The project report should contain a minimum of 50 pages in A4 format excluding bibliography and appendices.

3. Each student should submit two copies of his / her project report for evaluation.

4. Last date for the submission of Project Report:

The project report should be submitted to Department (P.G. Courses) through the Guide **on or before the last working day** for the students of the College for the academic year. If a student fails to submit the project report on or before the last working day, he / she will not be eligible for getting rank.

FIRST EXTENSION :

If the student fails to submit the project report within the stipulated time, he / she may be permitted to submit the same one day prior to the date of *viva voce*.

SECOND EXTENSION :

If the student fails to submit the project report one day prior to the date of *viva voce* then, he / she may apply for a second extension of three months duration.

The above two extensions may be granted by the Principal based on the written recommendations from the Guide and the Head of the Department.

5. Any other unforeseen problems / situations, not mentioned above if arise regarding the project report and *viva voce*, will be placed in the College Council and suitably resolved.

External

Total – 50 marks

Project	Total – 30 marks
Relevance of the topic to the academic / society	05 Marks
Objectives	05 Marks
Experimental design	10 Marks
Expression of results and discussion	10 Marks
Viva Voce	Total – 20 marks
Presentation	10 Marks
Discussion	10 Marks

Mapping

PO/PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2
CO1	H	H	H	H	H	H	M	H	H	H
CO2	H	M	H	H	M	H	M	H	H	H
CO3	M	M	H	H	L	-	-	-	H	H
CO4	H	H	H	H	H	H	H	H	H	H

H-High; M-Medium; L-Low