



St. Mary's College (Autonomous)
Reaccredited with 'A+' Grade by NAAC (Cycle IV)
Thoothukudi



Criterion: I – Curricular Aspects
1.1 – Curriculum Design and Development
Year: 2018-2023

Programme: M.Sc. Chemistry

SEMESTER - II			
Elective I I A		Energy and Environmental Chemistry	
19PENC11	Hrs / Week: 6	Hrs / Semester: 90	Credits: 4

Vision:

To protect and improve the environment as a valuable asset against hazardous chemicals and energy resources.

Mission:

- To learn the various types of sonochemical reactions.
- To summarise renewable and non renewable energy resources.
- To gain knowledge about Environment and its problem solving techniques.

Course Outcome:

CO No.	Upon completion of this course, students will be able to	PSO addressed	CL
CO - 1	compare heterogeneous liquid- liquid and heterogeneous solid- liquid reactions	2	An
CO - 2	distinguish between renewable and non- renewable energy resources.	5,6	An
CO - 3	explain the construction, working and applications of primary and secondary batteries.	4,8	Ap
CO - 4	classify and compare the fuels based on their appearance such as solid, liquid and gas.	7	Cr
CO - 5	demonstrate the Orsat process for flue gas analysis.	8	Ap
CO - 6	identify a catalyst used in fine chemical synthesis.	4,6	Un
CO - 7	sketch the natural cycles of environment such as the hydrological, oxygen and nitrogen cycles.	6	Cr
CO - 8	differentiate chemical and photochemical reactions occurs in atmosphere.	1,5	An

Semester III			
Elective III	B. Chemical Instrumentation		
Course Code:21PCHE32	Hrs/Week:4	Hrs/Sem:60	Credits:4

Course Outcome:

CO No.	Upon completion of this course, students will be able to	PSO addressed	CL
CO1	demonstrate automatic operation and computer control	1,5	Ap
CO2	precise control of current and voltage.	6,8	Ap
CO3	differentiate modulation and demodulation	5	An
CO4	point out limitation on amplifier performance	1	Cr
CO5	predict binary logic concepts, logic gates and multi-vibrators	7	Un
CO6	distinguish visual, filter and spectrophotometers. interpret the optimal value of adjustable parameters	7,8	Ap



Semester III**Self-Study Course – Course on Competitive Exams****Code: 21PCHSS31****Credits: 2****Course Outcome:**

CO No.	Upon completion of this course, students will be able to	PSO addressed	CL
CO 1	solve real life problems requiring interpretation and comparison of various representations of ratios	2	Ap
CO 2	distinguish between proportional and non-proportional situations and when appropriate apply proportional reasoning	1, 2	An
CO 3	solve problems applying probabilistic reasoning to make decisions	2	Ap
CO 4	evaluate claims based on empirical, theoretical and subjective probabilities	1, 4	Re
CO 5	solve problems using high speed mental calculations	7	Ap
CO 6	understand the basic concepts of logical reasoning skills	1, 2	Un

*Louis Rose***Principal****St. Mary's College (Autonomous)
Thoothukudi-628 001.**