

Sardar Patel University
(Under Choice Based Credit Scheme)
Structure with Effect from 2022-23
M.Sc. Industrial Chemistry Semester-4

<p>Programme Outcome (PO) - For MSc Chemistry Programme</p>	<p>Master of Science program provides extended theoretical and practical knowledge of different science subjects. Master of Science programme at Sardar Patel University is designed keeping the overall back ground preparation in mind for the student to either seek a job or to become an entrepreneur. The students, after completion of Bachelor of Science can select the master's programme in the subject they have had at the final year or in a related discipline (depending upon eligibility criteria prescribed by university).</p> <p>Programme outcomes: At the end of the program, the students will be able to</p> <ol style="list-style-type: none"> 1. Have a deep understanding of both the theoretical and practical concepts in the respective subject. 2. Understand laboratory processes and use scientific equipments and work independently. 3. Develop research temperament as a consequence of their theory and practical learning. 4. Communicate scientific information in oral and written form. 5. Understand the issues related to nature and environmental contexts and think rationally for sustainable development. 6. The students are able to handle unexpected situations by critically analyzing the problem.
<p>Programme Specific Outcome (PSO) - For MSc Chemistry Semester - IV</p>	<p>Students will have a firm foundation in the fundamentals and application of current chemical and scientific theories including those in Analytical Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Chemistry and Industrial polymer Chemistry.</p> <p>After completing M.Sc. chemistry program, students will be able to:</p> <ul style="list-style-type: none"> ■ Demonstrate and apply the fundamental knowledge of the basic principles in various fields of Chemistry. ■ Apply knowledge to build up small scale industry for developing endogenous product. ■ Collaborate effectively on team-oriented projects in the field of chemistry or other related fields. ■ Communicate scientific information in a clear and concise manner both orally and in writing. ■ Inculcate logical thinking to address a problem and become result oriented with a positive attitude. ■ Enhance the scientific temperament among the students so as to develop a research culture and implementation of the policies to tackle the burning issues at global and local level. ■ Apply the knowledge to develop the sustainable and eco-friendly technology.

	<ul style="list-style-type: none"> ■ Take up global level research opportunities to pursue Ph.D programme targeted approach and specific competitive exams conducted by service commission ■ Accept enormous job opportunities at all level of chemical industries, pharmaceutical industries and placements in R & D.
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Course Type	Course Code	Name of Course	Type of Course	T/P	Credit	Hours Per Week	Exam Duration in hrs	Component of Marks		
								Internal	External	Total
								Total/Passing	Total/Passing	Total Passing
Core Course	PS04CICH51	Energy Technology	EM & EN	T	4	4	3	30/12	70/28	100/40
	PS04CICH52	Spectroscopy - II	EM & EN	T	4	4	3	30/12	70/28	100/40
	PS04CICH53	Analytical Chemistry	EM & EN	T	4	4	3	30/12	70/28	100/40
	PS04CICH54	Industrial Organic Chemistry- II	EM & SD	P	4	8	3	30/12	70/28	100/40
	PS04CICH55	Analytical aspects in Industries.	EM & SD	P	4	8	3	30/12	70/28	100/40
	PS04CICH56	Comprehensive Viva-Voce	-	T	1	1	1	-	50/20	50/20
Any one Elective	PS04EICH51	Natural Products	EM & EN	T	4	4	3	30/12	70/28	100/40
	PS04EICH52	Introduction to biochemistry	EM & EN	T	4	4	3	30/12	70/28	100/40
		Total			25					650

EM = Employability

EN = Entrepreneurship

SD = Skill Development