

**GUJARAT UNIVERSITY**  
**DESIGN AND STRUCTURE OF CHOICE BASED**  
**CREDIT SYSTEM OF M.Sc. CHEMISTRY**

Department	Semester	Course	No. of hours per week				Course credits	
		Name	Lectures	Others	Practicals	Total		
<b>CHEMIStry</b>	1	<b>CHE 401</b>	Inorganic	3	1	--	4	4
		<b>CHE 402</b>	Organic	3	1	--	4	4
		<b>CHE 403</b>	Physical	3	1	--	4	4
		<b>CHE 404</b>	Analytical	3	1	--	4	4
		<b>CHE405PR</b>	Practical (Inorganic + Organic)	--	--	6	4	4
		<b>CHE406PR</b>	Practical (Physical + Analytical)	--	--	6	4	4
	2	<b>Total</b>		<b>12</b>	<b>4</b>	<b>12</b>	<b>24</b>	<b>24</b>
		<b>CHE407</b>	Inorganic	3	1	--	4	4
		<b>CHE408</b>	Organic	3	1	--	4	4
		<b>CHE409</b>	Physical	3	1	--	4	4
		<b>CHE410</b>	Analytical	3	1	--	4	4
		<b>CHE411 PR</b>	Practical (Inorganic + Organic)	--	--	6	4	4
		<b>CHE412 PR</b>	Practical (Physical + Analytical)	--	--	6	4	4
		<b>Total</b>		<b>12</b>	<b>4</b>	<b>12</b>	<b>24</b>	<b>24</b>
	3	<b>Inorganic</b>						
		<b>CHE 501 EI</b>	Advanced Inorganic Chemistry	3	1	--	4	4
		<b>CHE 502 EI</b>	Selected topics in Inorganic Chemistry	3	1	--	4	4
		<b>CHE 503 EI</b>	Inorganic Pharmaceutical medicinal Chemistry	3	1	--	4	4
		<b>CHE 504 EI</b> <b>CHE 504 EO</b> <b>CHE 504 EP</b> <b>CHE 504 EA</b>	Choice Based Electives for all Specializations  Supramolecular Chemistry Industrial Chemistry Catalysis-1 Modern Separation techniques	3	1	--	4	4
		<b>CHE 505 EI PR</b>	Practicals	--	--	12	8	8
		<b>Total</b>		<b>12</b>	<b>4</b>	<b>12</b>	<b>24</b>	<b>24</b>
		<b>Organic</b>						
		<b>CHE 501 EO</b>	Natural products and biomolecules	3	1	--	4	4
		<b>CHE 502 EO</b>	Medicinal Chemistry	3	1	--	4	4
	4	<b>CHE 503 EO</b>	Organic Spectroscopy	3	1	--	4	4
		<b>CHE 504 EI</b> <b>CHE 504 EO</b> <b>CHE 504 EP</b> <b>CHE 504 EA</b>	Choice Based Electives for all Specializations  Supramolecular Chemistry Industrial Chemistry Catalysis-1 Modern Separation techniques	3	1	--	4	4
		<b>CHE 505 EO PR</b>	Practicals	--	--	12	8	8
		<b>Total</b>		<b>12</b>	<b>4</b>	<b>12</b>	<b>24</b>	<b>24</b>

			<b>Physical</b>					
		<b>CHE 501 EP</b>	Advanced Physical Chemistry	3	1	--	4	4
		<b>CHE 502 EP</b>	Selected topics in Physical Chemistry	3	1	--	4	4
		<b>CHE 503 EP</b>	Polymer Chemistry	3	1	--	4	4
			<b>Choice Based Electives for all Specializations</b>					
		<b>CHE 504 EI</b>	Supramolecular Chemistry					
		<b>CHE 504 EO</b>	Industrial Chemistry					
		<b>CHE 504 EP</b>	Catalysis-1					
		<b>CHE 504 EA</b>	Modern Separation techniques	3	1	--	4	4
		<b>CHE 505 EP PR</b>	Practicals	--	--	12	8	8
			<b>Total</b>	<b>12</b>	<b>4</b>	<b>12</b>	<b>24</b>	<b>24</b>
			<b>Analytical</b>					
		<b>CHE 501 EA</b>	Industrial Analytical	3	1	--	4	4
		<b>CHE 502 EA</b>	Qualitative Optical Spectroscopic Methods	3	1	--	4	4
		<b>CHE 503 EA</b>	Electro analytical technique	3	1	--	4	4
			<b>Choice Based Electives for all Specializations</b>					
		<b>CHE 504 EI</b>	Supramolecular Chemistry					
		<b>CHE 504 EO</b>	Industrial Chemistry					
		<b>CHE 504 EP</b>	Catalysis-1					
		<b>CHE 504 EA</b>	Modern Separation techniques	3	1	--	4	4
		<b>CHE 505 EA PR</b>	Practicals	--	--	12	8	8
			<b>Total</b>	<b>12</b>	<b>4</b>	<b>12</b>	<b>24</b>	<b>24</b>
			<b>Inorganic</b>					
		<b>CHE 507 EI</b>	Advanced Inorganic Chemistry	3	1	--	4	4
		<b>CHE 508 EI</b>	Selected topics in Inorganic Chemistry	3	1	--	4	4
		<b>CHE 509 EI</b>	Advanced industrial inorganic chemistry	3	1	--	4	4
			<b>Choice Based Electives for all Specializations</b>					
		<b>CHE 510 EI</b>	Intellectual property rights-Basics					
		<b>CHE 510 EO</b>	Selected topics in Medicinal Chemistry	3	1	--	4	4
		<b>CHE 510 EP</b>	Catalysis-2					
		<b>CHE 510 EA</b>	Environmental chemistry					
	4	<b>CHE 511 EI PR</b>	dissertation/industrial training	--	--	12	8	8
			<b>Total</b>	<b>12</b>	<b>4</b>	<b>12</b>	<b>24</b>	<b>24</b>

		<b>Organic</b>					
<b>CHE 507 EO</b>	Advanced organic chemistry	3	1	--	4	4	
<b>CHE 508 EO</b>	Advanced organic Synthesis	3	1	--	4	4	
<b>CHE 509 EO</b>	Bio organic Chemistry	3	1	--	4	4	
		<b>Choice Based Electives for all Specializations</b>					
<b>CHE 510 EI</b>	Intellectual property rights-Basics						
<b>CHE 510 EO</b>	Selected topics in Medicinal Chemistry	3	1	--	4	4	
<b>CHE 510 EP</b>	Catalysis-2						
<b>CHE 510 EA</b>	Environmental chemistry						
<b>CHE 511 EI PR</b>	dissertation/industrial training	--	--	12	8	8	
	<b>Total</b>	<b>12</b>	<b>4</b>	<b>12</b>	<b>24</b>	<b>24</b>	
<b>Physical</b>							
<b>CHE 507 EP</b>	Advanced Physical Chemistry	3	1	--	4	4	
<b>CHE 508 EP</b>	Selected topics in Physical Chemistry	3	1	--	4	4	
<b>CHE 509 EP</b>	Polymer chemistry-2	3	1	--	4	4	
<b>CHE(P) 510</b>	Catalysis-2	3	1	--	4	4	
<b>CHE 511 EP PR</b>	dissertation/industrial training	--	--	12	8	8	
	<b>Total</b>	<b>12</b>	<b>4</b>	<b>12</b>	<b>24</b>	<b>24</b>	
<b>Analytical</b>							
<b>CHE 507 EA</b>	Selected topics in analytical chemistry	3	1	--	4	4	
<b>CHE 508 EA</b>	Quantitative Optical Spectroscopic Methods	3	1	--	4	4	
<b>CHE 509 EA</b>	Advanced analytical instrumentation	3	1	--	4	4	
		<b>Choice Based Electives for all Specializations</b>					
<b>CHE 510 EI</b>	Intellectual property rights-Basics						
<b>CHE 510 EO</b>	Selected topics in Medicinal Chemistry	3	1	--	4	4	
<b>CHE 510 EP</b>	Catalysis-2						
<b>CHE 510 EA</b>	Environmental chemistry						
<b>CHE 511 EA PR</b>	dissertation/industrial training	--	--	12	8	8	
	<b>Total</b>	<b>12</b>	<b>4</b>	<b>12</b>	<b>24</b>	<b>24</b>	

