

**M Sc Chemistry Curriculum**  
**2018**

Course Code	Course Title	L T P	Cr	ES	Course Code	Course Title	L T P	Cr	ES
<b>SEMESTER 1</b>					<b>SEMESTER 2</b>				
18CHY501	Quantum Chemistry	3 0 0	3		18CHY511	Chemical Thermodynamics and Equilibria	3 1 0	4	
18CHY505	Group Theory and its Applications	3 0 0	3		18CHY512	Molecular Spectroscopy	3 1 0	4	
18CHY502	Concepts in Inorganic Chemistry	3 1 0	4		18CHY513	Organic Reaction Mechanism	3 1 0	4	
18CHY503	Principles in Organic Chemistry	3 0 0	3		18CHY514	Heterocyclic and Natural Products Chemistry	3 0 0	3	
18CHY504	Coordination Chemistry	3 0 0	3		18CHY515	Organometallic Chemistry	3 0 0	3	
18CHY581	Inorganic Semi-micro Qualitative Analysis Lab.	0 0 5	2		18CHY583	Advanced Physical Chemistry Lab.	0 0 5	2	
18CHY582	Organic Quantitative Analysis Lab.	0 0 5	2		18CHY584	Inorganic Quantitative Analysis Lab.	0 0 5	2	
18CUL501	Cultural Education	2 0 0	P/F		18AVP501	Amrita Values Programme	1 0 0	1	
<b>TOTAL</b>				<b>20</b>	<b>TOTAL</b>				<b>23</b>
<b>SEMESTER 3</b>					<b>SEMESTER 4</b>				
18CHY601	Electrochemistry, Kinetics and surface Chemistry	3 1 0	4		18CHY696	Dissertation		14	
18CHY602	Synthetic Strategies and Reagents	3 1 0	4		<b>TOTAL</b>				<b>14</b>
18CHY603	Solid State Chemistry and Material Science	3 0 0	3						
18CHY604	Bioinorganic Chemistry	3 0 0	3						
	Elective	3 0 0	3						
18CHY681	Organic Qualitative Analysis Lab.	0 0 5	2						
18CHY682	Instrumental and Analytical Methods Lab.	0 0 5	2						
18CHY690	Live-in-Lab.@ / Open Elective*	2 0 0	2						
<b>TOTAL</b>				<b>23</b>	<b>TOTAL</b>				<b>80</b>
<b>Electives</b>					<b>Open Electives (2 0 2)</b>				
18CHY631	Applied Electrochemistry	3 0 0	3	E	18OEL631	Advanced Statistical Analysis for Research			
18CHY632	Bioanalytical Chemistry	3 0 0	3	E	18OEL632	Basics of PC Software			
18CHY633	Chemistry of Biomolecules	3 0 0	3	E	18OEL633	Computer Hardware and Networking			
18CHY634	Industrial Chemistry	3 0 0	3	E	18OEL634	Consumer Protection Act			
18CHY635	Industrial Stoichiometry	3 0 0	3	E	18OEL635	Corporate Communication			
18CHY636	Material Science and Nanochemistry	3 0 0	3	E	18OEL636	Design Studies			
18CHY637	Medicinal Chemistry	3 0 0	3	E	18OEL637	Disaster Management			
18CHY638	Supramolecular Chemistry	3 0 0	3	E	18OEL638	Essentials of Cultural Studies			
18CHY639	Nanomaterials for Biomedical Applications	3 0 0	3	E	18OEL639	Foundations of Mathematics			
18CHY640	Industrial Metal Finishing Processes	3 0 0	3	E	18OEL640	Foundations of Quantum Mechanics			
18CHY641	Biosensors: Fundamentals and Applications	3 0 0	3	E	18OEL641	Glimpses of Life through Literature			
18CHY642	Computational Chemistry	3 0 0	3	E	18OEL642	Information Technology in Banking			
18CHY643	Sustainable Chemical Science	3 0 0	3	E	18OEL644	Knowledge Management			
					18OEL645	Marketing Research			
					18OEL646	Media for Social Change			
					18OEL647	Media Management			
					18OEL648	Object-Oriented Programming			
					18OEL649	Painting and Sculpture			
					18OEL650	Personal Finance			
					18OEL651	Principles of Advertising			
					18OEL652	Principles of Packaging			
					18OEL653	Scripting for Rural Broadcasting			
					18OEL654	Social Media Website Awareness			
					18OEL655	Theatre Studies			
					18OEL656	Writing for Technical Purposes			
					18OEL657	Yoga and Personal Development			
					18OEL658	Fundamentals of Legal Awareness			
					18OEL659	Solid Waste Management and Utilization			
					18OEL660	Relativistic Quantum Mechanics			
					18OEL661	Robotics and Biology			
					18OEL662	Science of Well Being			
					18OEL663	Operating Systems and Networks			
					18EN600	Technical Writing			
					18OEL664	Bhagavat Geeta and Personality Development			
					18OEL665	Chemical Aspects of Forensic Science			

\*One Open Elective course is to be taken by each student, in the third semester, from the list of Open electives offered by the School.

@Students undertaking and registering for a Live-in-Lab. project, can be exempted from registering for the Open Elective course in the third semester.