

Indus University
Indus Institute of Sciences, Humanities & Liberal Studies
Department of Chemistry-2021

M.Sc. Chemistry Sem-I

			Teaching Scheme					Examination Scheme				
								Theory		Practical		
Sr. No	Code	Subject Name	L*	T*	P*	Cr	Hrs	CIE	ESE	CIE	ESE	TOTAL
1	MCH0101	Inorganic Chemistry-I	4	0	0	4	4	60	40	0	0	100
2	MCH0102	Organic Chemistry-I	4	0	0	4	4	60	40	0	0	100
3	MCH0103	Physical Chemistry-I	4	0	0	4	4	60	40	0	0	100
4	MCH0104	Analytical Chemistry-I	4	0	0	4	4	60	40	0	0	100
5	MCH0105	Practical Module-I	0	0	6	3	6	0	0	60	40	100
6	MCH0106	Practical Module-II	0	0	6	3	6	0	0	60	40	100
7	MEN0101	Communicative English	2	0	0	2	2	60	40	0	0	100
Total			18	0	12	24	30	300	200	120	80	700

M.Sc. Chemistry Sem-II

			Teaching Scheme					Examination Scheme				
								Theory		Practical		
Sr. No	Code	Subject Name	L*	T*	P*	Cr	Hrs	CIE	ESE	CIE	ESE	TOTAL
1	MCH0201	Inorganic Chemistry-II	4	0	0	4	4	60	40	0	0	100
2	MCH0202	Organic Chemistry-II	4	0	0	4	4	60	40	0	0	100
3	MCH0203	Physical Chemistry-II	4	0	0	4	4	60	40	0	0	100
4	MCH0204	Analytical Chemistry-II	4	0	0	4	4	60	40	0	0	100
5	MCH0205	Practical Module-III	0	0	6	3	6	0	0	60	40	100
6	MCH0206	Practical Module-IV	0	0	6	3	6	0	0	60	40	100
7	MEN0201	Academic Writing	2	0	0	2	2	60	40	0	0	100
Total			18	0	12	24	30	300	200	120	80	700

M.Sc. Organic Chemistry Sem-III

			Teaching Scheme					Examination Scheme				
								Theory		Practical		
Sr. No	Code	Subject Name	L*	T*	P*	Cr	Hrs	CIE	ESE	CIE	ESE	TOTAL
1	MCH0301	Chemistry of Natural Products	4	0	0	4	4	60	40	0	0	100
2	MCH0302	Advanced Concept in Organic Reactions	4	0	0	4	4	60	40	0	0	100
3	MCH0303	Organic Spectroscopy	4	0	0	4	4	60	40	0	0	100
4	Elective MCH0304 OR MCH0305	Bio-chemistry OR Drug Chemistry	4	0	0	4	4	60	40	0	0	100

5	MCH0306	Practical Module-OC-V	0	0	6	3	6	0	0	60	40	100
6	MCH0307	Preparative Chemistry-I	2	0	0	2	2	60	40	0	0	100
7	MCH0308	Research Methodology	2	0	0	2	2	60	40	0	0	100
8	MCH0309	Computational Chemistry Practicals	0	0	2	1	2	0	0	60	40	100
Total			20	0	8	24	28	360	240	120	80	800

M.Sc. Organic Chemistry Sem-IV

			Teaching Scheme					Examination Scheme				
								Theory		Practical		
Sr. No	Code	Subject Name	L*	T*	P*	Cr	Hrs	CIE	ESE	CIE	ESE	TOTAL
1	MCH0401	Retro-synthetic Analysis	4	0	0	4	4	60	40	0	0	100
2	MCH0402	Name Reactions and Rearrangement	4	0	0	4	4	60	40	0	0	100
3	MCH0403	Applications of Organic Chemistry	4	0	0	4	4	60	40	0	0	100
4	Elective MCH0404 or MCH0405	Medicinal Chemistry or Industrial Chemistry	4	0	0	4	4	60	40	0	0	100
5	MCH0406	Dissertation	0	0	8	4	8	0	0	120	80	200
6	MCH0407	Preparative Chemistry-II	2	0	0	2	2	60	40	0	0	100
7	MCH0408	Inhouse/External Internship	0	0	80	2	4	0	0	100	0	100
8	EN0412	Soft Skills & Interpersonal Communication	2	0	0	2	2	60	40	0	0	100
Total			20	0	88	26	32	360	240	220	80	900

M.Sc. Analytical Chemistry Sem-III

			Teaching Scheme					Examination Scheme				
								Theory		Practical		
Sr. No	Code	Subject Name	L*	T*	P*	Cr	Hrs	CIE	ESE	CIE	ESE	TOTAL
1	MCH0321	Qualitative Spectroscopic Techniques	4	0	0	4	4	60	40	0	0	100
2	MCH0322	Electroanalytical Techniques	4	0	0	4	4	60	40	0	0	100

3	MCH0323	Advanced Chromatographic Techniques	4	0	0	4	4	60	40	0	0	100
4	MCH0324ORM	Nanochemistry or Pharmaceutical Analysis	4	0	0	4	4	60	40	0	0	100
5	MCH0326	Practical Module-AC-V	0	0	6	3	6	0	0	60	40	100
6	MCH0307	Preparative Chemistry-I	2	0	0	2	2	60	40	0	0	100
7	MCH0308	Research Methodology	2	0	0	2	2	60	40	0	0	100
8	MCH0309	Computational Chemistry Practicals	0	0	2	1	2	0	0	60	40	100
Total			20	0	8	24	28	360	240	120	80	800

M.Sc. Analytical Chemistry Sem-IV

			Teaching Scheme					Examination Scheme					
	Theory										Practical		
Sr. No	Code	Subject Name	L*	T*	P*	Cr	Hrs	CIE	ESE	CIE	ESE	TOTAL	
1	MCH0421	Quantitative Spectroscopic Techniques	4	0	0	4	4	60	40	0	0	100	
2	MCH0422	Advanced Analytical Techniques	4	0	0	4	4	60	40	0	0	100	
3	MCH0423	Good Practices and Validation Process	4	0	0	4	4	60	40	0	0	100	
4	MCH0424 Or MCH0425	Applied Analytical Chemistry or Regulatory Affairs and Intellectual Property Right	4	0	0	4	4	60	40	0	0	100	
5	MCH0406	Dissertation	0	0	8	4	8	0	0	120	80	200	
6	MCH0407	Preparative Chemistry-II	2	0	0	2	2	60	40	0	0	100	
7	MCH0408	Inhouse/External Internship	0	0	80	2	4	0	0	100	0	100	
8	EN0412	Soft Skills & Interpersonal Communication	2	0	0	2	2	60	40	0	0	100	
Total			20	0	88	26	32	360	240	220	80	900	