

School Name: School of Basic and Applied Sciences
Programme Name: Master of Science (Chemistry) (2 Years)
Scheme: 2015-17

Semester 1						
Sl. No	Course Code	Name of the Course				
			L	T	P	C
1	CHY 501	Stereochemistry & Reaction mechanisms	4	0	0	4
2	CHY 502	Basic concepts and principles of Inorganic chemistry	4	0	0	4
3	CHY 503	Basic Concepts of Physical Chemistry	4	0	0	4
4	CHY 504	Basic Analytical Chemistry	4	0	0	4
5	CHY 505	Computer Applications for chemistry	2	0	0	2
6	CHY 551	Organic chemistry Lab – I	0	0	4	2
7	CHY 552	Inorganic chemistry Lab – I	0	0	4	2
		Total	18	0	10	22
Semester II						
Sl No	Course Code	Name of the Course				
			L	T	P	C
1	CHY 511	Organic Spectroscopy	4	0	0	4
2	CHY 512	Reaction mechanism and Basics of group theory	4	0	0	4
3	CHY 513	Basics of Instrumental Analysis	4	0	0	4
4	CHY 514	Techniques in Analytical Chemistry	4	0	0	4
5	CHY 553	Physical chemistry Lab – I	0	0	4	2
6	CHY 554	Analytical chemistry Lab – I	0	0	4	2

		Total	16	0	8	20
Semester III						
(Organic Specialization)						
SI No	Course Code	Name of the Course				
			L	T	P	C
1	CHY 601	Photo chemistry & Pericyclic reaction	4	0	0	4
2	CHY 602	Reagents and Heterocyclic Chemistry	4	0	0	4
3	CHY 603	Chemistry of Natural Products and Retrosynthesis	4	0	0	4
4		Elective	4	0	0	4
5	PHU501	Research Methodology	3	0	0	3
6	CHY 640	Minor Project/ Internship	0	0	0	2
7	CHY 651	Organic chemistry Lab – II	0	0	8	4
		Total	19	0	8	25
Semester III (Inorganic Specialization)						
SI No	Course Code	Name of the Course				
			L	T	P	C
1	CHY 605	Organometallic Chemistry	4	0	0	4
2	CHY 606	Structural methods in Inorganic Chemistry	4	0	0	4
3	CHY 607	Bio-Inorganic Chemistry	4	0	0	4
4		Elective	4	0	0	4
5	PHU501	Research Methodology	3	0	0	3

6	CHY 640	Minor project/ Internship	0	0	0	2
7	CHY 652	Inorganic chemistry Lab – II	0	0	8	4
		Total	19	0	8	25
Semester III (Physical Specialization)						
Sl No	Course Code	Name of the Course	L	T	P	C
1	CHY 609	Applied Electrochemistry	4	0	0	4
2	CHY 610	Chemical Kinetics and Surface Chemistry	4	0	0	4
3	CHY 611	Molecular Spectroscopy	4	0	0	4
4		Elective	4	0	0	4
5	PHU501	Research Methodology	3	0	0	3
6	CHY 640	Minor project/ Internship	0	0	0	2
7	CHY 653	Physical chemistry Lab –II	0	0	8	4
		Total	19	0	8	25
Semester III (Analytical Specialization)						
			L	T	P	C
1	CHY 613	Electroanalytical methods	4	0	0	4
2	CHY 614	Quality control and quality assurance	4	0	0	4
3	CHY 615	Advanced Instrumentation methods	4	0	0	4
4		(Elective)	4	0	0	4
5	PHU501	Research Methodology	3	0	0	3
6	CHY 640	Minor project/ internship	0	0	0	2
7	CHY 654	Analytical chemistry Lab -II	0	0	8	4

		Total	19	0	8	25
Semester IV						
SI No	Course Code	Name of the Course				
			L	T	P	C
1	CHY 670	Major Project	0	0	0	16
		Total	0	0	0	16

List of Electives

SI No	Course Code	Name of the Electives				
			L	T	P	C
1	CHY 604	Polymer chemistry	4	0	0	4
2	CHY 608	Industrial chemistry	4	0	0	4
3	CHY 612	Solid State chemistry	4	0	0	4
4	CHY 616	Environmental analytical chemistry	4	0	0	4