

Gulbarga



University

Department of Studies and Research in Chemistry

**Course Outline and Syllabus for Master of Science (M. Sc) in ORGANIC CHEMISTRY
Under CBCS and CAGP (Effective from the academic year 2011-2012)**

Semester	Code	Title of the Course	Semester Exam	IA	Total	L	T	P	Credits
		Hard Core							
First	HCT1.1	Inorganic Chemistry-I	80	20	100	4	0	0	4
	HCT1.2	Organic Chemistry-I	80	20	100	4	0	0	4
	HCT1.3	Physical Chemistry-I	80	20	100	4	0	0	4
		Soft-Core (Any One)							
	SCT1.1	Analytical Chemistry-I	80	20	100	4	0	0	4
	SCT1.2	Pharmaceutical Chemistry	80	20	100	4	0	0	4
		Practical							
	HCP1.1	Inorganic Chemistry Practical –I	40	10	50	0	0	2	2
	HCP1.2	Organic Chemistry Practical –I	40	10	50	0	0	2	2
	HCP1.3	Physical Chemistry Practical-I	40	10	50	0	0	2	2
		Soft-Core (Any One)							
	SCP1.1	Analytical Chemistry Practical –I	40	10	50	0	0	2	2
	SCP1.2	Pharmaceutical Chemistry Practical	40	10	50	0	0	2	2
		Total for First Semester	480	120	600				24
Second		Hard Core							
	HCT2.1	Inorganic Chemistry-II	80	20	100	4	0	0	4
	HCT2.2	Organic Chemistry-II	80	20	100	4	0	0	4
		Soft Core (Any One)							
	SCT2.1	Analytical Chemistry-II	80	20	100	4	0	0	4
	SCT2.2	Physical Chemistry-II	80	20	100	4	0	0	4
		Open Elective (Any One)							
	OET2.1	Chemistry-I (Analytical)	80	20	100	4	0	0	4
	OET2.2	Chemistry-II (Physical)	80	20	100	4	0	0	4
		Practical							
	HCP2.1	Inorganic Chemistry Practical –II	40	10	50	0	0	2	2
	HCP2.2	Organic Chemistry Practical –II	40	10	50	0	0	2	2
		Soft Core (Any One)							
	SCP2.1	Analytical Chemistry Practical-II	40	10	50	0	0	2	2
	SCP2.2	Physical Chemistry Practical –II	40	10	50	0	0	2	2
		Open Elective (Any One)							
	OEP2.1	Chemistry Practical-I (Analytical)	40	10	50	0	0	2	2
	OEP2.2	Chemistry Practical-II (Physical)	40	10	50	0	0	2	2

Semester	Code	Title of the Course	Semester Exam	IA	Total	L	T	P	Credits
		Hard Core							
Third	HCT3.1	Spectroscopy	80	20	100	4	0	0	4
	HCT3.2	Reaction Mechanisms	80	20	100	4	0	0	4
		Soft-Core (Any One)							
	SCT3.1	Natural Products	80	20	100	4	0	0	4
	SCT3.2	Heterocyclic Chemistry	80	20	100	4	0	0	4
		Open Elective (Any One)							
	OET3.1	Chemistry-III (Inorganic)	80	20	100	4	0	0	4
	OET3.2	Chemistry-IV (Organic)	80	20	100	4	0	0	4
		Practical							
	HCP3.1	Synthesis & Spectral Analysis	40	10	50	0	0	2	2
	HCP3.2	Multistep Synthesis	40	10	50	0	0	2	2
		Soft-Core (Any One)							
	SCP3.1	Isolation & Characterization of Natural Products	40	10	50	0	0	2	2
	SCP3.2	Synthesis of Heterocycles	40	10	50	0	0	2	2
		Open Elective (Any One)							
	OEP3.1	Chemistry Practical-III (Inorganic)	40	10	50	0	0	2	2
	OEP3.2	Chemistry Practical-IV (Organic)	40	10	50	0	0	2	2
		Total for Third Semester	480	120	600				24
Fourth		Hard Core							
	HCT4.1	Recent Methods in Organic Chemistry	80	20	100	4	0	0	4
	HCT4.2	Special Topics in Org. Chem.	80	20	100	4	0	0	4
		Soft Core (Any One)							
	SCT4.1	Applied Organic Chemistry	80	20	100	4	0	0	4
	SCT4.2	Medicinal Chemistry	80	20	100	4	0	0	4
		Practical							
	HCP4.1	Separation & Identification	40	10	50	0	0	2	2
	HCP4.2	Analysis of Elements and Functional groups	40	10	50	0	0	2	2
		Soft Core (Any One)							
	SCP4.1	Spectrophotometric Analysis	40	10	50	0	0	2	2
	SCP4.2	Synthesis of Drugs	40	10	50	0	0	2	2
	HCMP4.3	Major Project	120	30	150	0	0	6	6
		Total Fourth Semester	480	120	600				24
		Total Second Semester	480	120	600				24

L = Lecture; T = Tutorials; P = Practical; 4 Credits of Theory = 4 hours teaching per week

2 Credits of Practical = 4 hours per week; Scheme of Practical Exam: Expts-30 Marks, Viva-voce-5 Marks, Record-5 Marks = 40 Marks;
Major Project: Project Evaluation-90 Marks & Viva-voce-30 Marks = 120 Marks