

MAHATMA GANDHI UNIVERSITY  
SCHOOL OF CHEMICAL SCIENCES

PROGRAMME M Sc Chemistry (Organic Chemistry)

DURATION 2 years (2020 Admission onwards)

Total credits required: 86 (for 4 semesters)

[Core: 64; Elective: 18; Open: 4]

\* The student has to choose **three elective courses** for semester I, **three elective courses** for semester II and **two elective courses** for semester III and **one elective course** for semester IV.

\*\* The student has to choose **one open course** of 4 credits for semester III from any other School under the Faculty of Science.

\*\*\* In the evaluation process internal –Continuous Assessment (CA) - accounts for 40% and the End- Semester Examination will account for the remaining 60%.

**SEMESTER I**

Course Code	Course Title	Hours/Week			Credit
		L	T	P	
<b><u>Core Courses</u></b>					
SCSMPC02	Quantum Mechanics and Atomic Structure	2	2	-	3
SCSMPC03	Chemical Thermodynamics and Surface Chemistry	2	2	-	3
SCSMC05	Molecular Spectroscopy	2	2	-	3
SCSMPC06	Inorganic Chemistry Lab-I	-	-	6	3
SCSMPC23	Organic Reaction Mechanisms	2	2	-	3
SCSMPC24	Stereochemistry and Conformations of Organic Compounds	2	2	-	3
<b><u>*Elective Courses</u></b>					
SCSMPE52	Introduction to Polymer Chemistry	2	-	-	2
SCSMPE53	Supramolecular Chemistry	2	-	-	2
SCSMPE54	Polymer Physics	2	-	-	2
SCSMPE72	Main Group Elements Chemistry	2	-	-	2
SCSMPE83	Fundamentals of Equilibrium Statistical Mechanics	2	-	-	2

**SEMESTER II**

Course Code	Course Title	Hours/Week			Credit
		L	T	P	
<b><u>Core Courses</u></b>					
SCSMPC08	Coordination Chemistry	2	2	-	3
SCSMPC09	Structural and Solid State Chemistry	2	2	-	3
SCSMPC10	Photochemistry and Pericyclic Reactions	2	2	-	3
SCSMPC11	Chemical Bonding and Group Theory	2	2	-	3
SCSMPC12	Spectroscopic Methods in Chemistry	2	2	-	3
SCSMPC25	Reactions and Reagents in Organic Synthesis	2	2	-	3

<b>* Elective Courses</b>					
SCSMPE58	Biochemistry	2	-	-	2
SCSMPE59	Instrumental Methods of Analysis	2	-	-	2
SCSMPE60	Physical Chemistry Lab-I	-	-	6	2
SCSMPE61	Organic Chemistry Lab - I	-	-	6	2
SCSMPE73	Asymmetric Synthesis	2	-	-	2
SCSMPE74	Medicinal Chemistry	2	-	-	2

### SEMESTER III

Course Code	Course Title	Hours/Week			Credit
		L	T	P	
<b><u>Core Courses</u></b>					
SCSMPC13	Organometallic Chemistry	2	2	-	3
SCSMPC14	Analytical and Nuclear Chemistry	2	2	-	3
SCSMPC15	Chemical Kinetics	2	2	-	3
SCSMPC26	Advanced Organic Synthesis	2	2	-	3
SCSMPC27	Organic Chemistry Lab - II	-	-	6	3
<b><u>*Elective Courses</u></b>					
SCSMPE63	Computational Methods in Chemistry	2	-	-	2
SCSMPE65	Surface Chemistry and Catalysis	2	-	-	2
SCSMPE71	Nanomaterials	2	-	-	2
SCSMPE75	Chemistry of Heterocyclic Compounds	2	-	-	2
SCSMPE76	Chemistry of Natural Products	2	-	-	2
<b><u>**Open Courses</u></b>					
SCSMPO40	Environmental Chemistry	4	-	-	4
SCSMPO41	Science and Creativity	4	-	-	4

### SEMESTER IV

Course Code	Course Title	Hours/Week			Credit
		L	T	P	
<b><u>Core Courses</u></b>					
SCSMPC45	Research Project	-	-	-	7
SCSMPC46	Project Seminar	-	-	-	3
SCSMPC47	Comprehensive Viva-Voce	-	-	-	3
<b><u>*Elective Courses</u></b>					
SCSMPE98	Review Report	-	-	-	2
SCSMPE99	Industry Visit Report	-	-	-	2