

STRUCTURE FOR M.Sc. - Industrial Polymer Chemistry (IPC)

M.Sc. (Industrial Polymer Chemistry) (First Year) (Batch 2020-22) Trimester – I

Sr. No.	Course Code	Name of Course	Type	Weekly Workload, Hrs			Credits		Assessment, Marks			
				Theory	Tutorial	Lab	Th	Lab	CCA*	LCA*	End Term Test	Total
1	MIPC-1101	Organic Chemistry - I	Chem	3	0	-	2	-	50	-	50	100
2	MIPC-1102	Inorganic Chemistry – I	Chem	3	0	-	2	-	50	-	50	100
3	MIPC-1103	Physical Chemistry - I	Chem	3	0	-	2	-	50	-	50	100
4	MIPC-1104	Fundamentals of Polymer Science	Core	3	0	-	2	-	50	-	50	100
5	MIPC-1105	Lab Course I (Organic Chemistry)	Chem	0	0	3	0	2	-	50	50	100
6	MIPC-1106	Lab Course II (Inorganic Chemistry)	Chem	0	0	3	0	2	-	50	50	100
7	WPC-101A	World Famous Philosophers, Sages/Saints and Great Kings	WPC	3	-	-	2	-	70	-	30	100
		Total :		15	0	06	10	4	270	100	330	700

Weekly Teaching Hours: 21
 Total Credits: Trimester I: 14

**Assessment marks are valid only if attendance criteria are met
 * CCA : Class Continuous Assessment
 * LCA : Laboratory Continuous Assessment

M.Sc.(Industrial Polymer Chemistry) (First Year) (Batch 2020-22)
Trimester – II

Sr. No.	Course Code	Name of Course	Type	Weekly Workload, Hrs			Credits		Assessment Marks **			
				Theory	Tutorial	Lab	Th	Lab	CCA*	LCA*	End Term Test	Total
1	MIPC-1201	Organic Chemistry - II	Chem	3	0	-	2	-	50	-	50	100
2	MIPC-1202	Inorganic Chemistry - II	Chem	3	0	-	2	-	50	-	50	100
3	MIPC-1203	Physical Chemistry - II	Chem	3	0	-	2	-	50	-	50	100
4	MIPC-1204	Advanced Polymer Chemistry	Core	3	0	-	2	-	50	-	50	100
5	MIPC-1205	Lab Course III (Physical Chemistry)	Chem	0	0	3	0	2	-	50	50	100
6	MIPC-1206	Lab Course IV (Polymer Synthesis)	Core	0	0	3	0	2	-	50	50	100
7	MIPC-1207	MOOC-I	MOOC	-	-	-	2	-	-	-	-	-
		Total :		12	0	06	10	4	200	100	300	600

Weekly Teaching Hours: 18
Total Credits: Trimester II: 14

**Assessment marks are valid only if attendance criteria are met

* CCA : Class Continuous Assessment

* LCA : Laboratory Continuous Assessment

* MOOC : Massive Open Online Course

M.Sc. (Industrial Polymer Chemistry) (First Year) (Batch 2020-22)

Trimester – III

Sr. No	Course Code	Name of Course	Type	Weekly Workload, Hrs			Credits		Assessment Marks**			
				Theory	Tutorial	Lab	Th	Lab	CCA*	LCA*	End Term Test	Total
1	MIPC-1301	Polymer Physics & Structure Property Relationship	Core	3	0	-	2	-	50	-	50	100
2	MIPC-1302	Rubber & Elastomer Science	Core	3	0	-	2	-	50	-	50	100
3	MIPC-1303	Polymer Manufacturing: Industrial Case Studies	Core	3	0	-	2	-	50	-	50	100
4	MIPC-1304	Elective I	Core	3	0	-	2	-	50	-	50	100
5	MIPC-1305	Lab Course V (Polymer Analysis)	Core	0	0	3	0	2	-	50	50	100
6	MIPC-1306	Seminar - I	AECC	0	3	-	0	2	-	50	50	100
7	WPC-302A	Study of Languages, Peace in Communications and Human Dynamics	WPC	3	-	-	2	-	70	-	30	100
Total :				15	03	03	10	04	270	100	330	700

**Assessment marks are valid only if attendance criteria are met

Weekly Teaching Hours: 21

* CCA : Class Continuous Assessment

Total Credits: Trimester III: 14

* LCA : Laboratory Continuous Assessment, *AECC : Ability Enhancement Compulsory Course

M.Sc. (Industrial Polymer Chemistry) (Second Year) (Batch 2020-22)

Trimester – IV

Sr. No	Course Code	Name of Course	Type	Weekly Workload, Hrs			Credits		Assessment Marks**			
				Theory	Tutorial	Lab	Th	Lab	CCA*	LCA*	End Term Test	Total
1	MIPC-2101	Polymer Testing & Characterization	Core	3	0	-	2	-	50	-	50	100
2	MIPC-2102	Polymer Rheology & Processing	Core	3	0	-	2	-	50	-	50	100
3	MIPC-2103	Paint Technology & Surface Coating	Core	3	0	-	2	-	50	-	50	100
4	MIPC-2104	Elective II	Core	3	0	-	2	-	50	-	50	100
5	MIPC-2105	Lab Course VI (Polymer Testing and Characterization)	Core	0	0	3	0	2	-	50	50	100
6	MIPC-2106	Lab course VII (Polymer Processing)	Core	0	0	3	0	2	-	50	50	100
7	MIPC-2107	Open Elective	OEC	3	-	-	2	-	50	-	50	100
Total :				15	0	6	10	4	250	100	350	700

Weekly Teaching Hours: 21
Total Credits: Trimester IV:14

**Assessment marks are valid only if attendance criteria are met

* CCA : Class Continuous Assessment

* LCA : Laboratory Continuous Assessment

M.Sc. (Industrial Polymer Chemistry) (Second Year) (Batch 2020-22)

Trimester – V

Sr. No	Course Code	Name of Course	Type	Weekly Workload, Hrs			Credits		Assessment Marks**			
				Theory	Tutorial	Lab	Th	Lab	CCA*	LCA*	End Term Test	Total
1	MIPC-2201	Research Project	Core	-	-	-	-	-	-	50	-	50
2	MIPC-2202	Polymer Industries, Feedstocks & Sustainability	Core	3	0	-	2	-	50	-	50	100
3	MIPC-2203	Research Methodology	Core	3	-	-	2	-	50	-	50	100
4	MIPC-2204	Elective- III	Core	3	0	-	2	-	50	-	50	100
5	MIPC-2205	Seminar - II	AECC	0	3	-	0	2	-	50	50	100
6	MIPC-2206	MOOC- II	MOOC	0	0	-	0	2	-	-	-	-
7	WPC-501A	Philosophy of Science and Religion/Spirituality	WPC	3	-	-	2	-	70	-	30	100
		Total :		12	03	06	08	04	220	100	230	550

Weekly Teaching Hours: 21
Total Credits: TrimesterV:12

**Assessment marks are valid only if attendance criteria are met

* CCA : Class Continuous Assessment

* LCA : Laboratory Continuous Assessment

M.Sc. (Industrial Polymer Chemistry) (Second Year) (Batch 2020-22)

Trimester – VI

Sr. No	Course Code	Name of Course	Type	Weekly Workload, Hrs			Credits		Assessment Marks**			
				Theory	Tutorial	Lab	Th	Lab	CCA*	LCA*	End Term Test	Total
1	MIPC-2301	Industry Internship	Core	-	-	40	-	16	-	50	50	100
2	MIPC-2302	Research Project (Continued)	Core	-	-	-	-	4	-	-	150	150
		Total :		-	-	40	-	20	-	50	200	250

Weekly Teaching Hours: Nil

Total Credits: Trimester VI: 20

Total Credits of all trimesters = 88

**Assessment marks are valid only if attendance criteria are met

* CCA : Class Continuous Assessment

* LCA : Laboratory Continuous Assessment

Apart from this in all 3 trimesters of 1st Year, every Thursday there will be YOGA.WPC001AYoga - for Winning Personality

Yoga also has 2 Credits, however, not to be considered in final CGPA calculations. Students have to attend 75% Yoga sessions to get these 2 credits.

Elective Courses:

M. Sc. (Industrial Polymer Chemistry)		
	Code	Title
<i>T3 - Elective I</i>	MIPCE-1304A	Polymer Additives and Compounding
	MIPCE-1304B	Specialty Polymers
	MIPCE-1304C	Fiber Technology
<i>T4 - Elective II</i>	MIPCE-2104A	Rubber Compounding and Product Development
	MIPCE-2104B	Adhesives and Sealants
	MIPCE-2104C	Polymer Waste Management
<i>T5 - Elective III</i>	MIPCE-2204A	Polymer Blends and Composite Technology
	MIPCE-2204B	Biopolymers and Biodegradable Polymers
	MIPCE-2204C	Polymer Packaging Technology
<i>Open Electives</i>		<i>Courses offered at MIT-WPU by other department in relevant trimesters.</i>

*****Compulsory industrial visits in 1st and 2nd year**

Assessment Scheme:

Class Continuous Assessment (CCA): (50 Marks)

Assignment	Mid Term	Presentations	Case study	Class Test	Oral	Attendance and Initiative
10 Marks 20%	20 Marks 40%	Nil --	Nil --	15 Marks 30%	Nil --	05 Marks 10%

Laboratory Continuous Assessment (LCA): (50 Marks)

Regularity and Punctuality	Understanding the objective	Understanding of Procedure	Experiment skills	Ethics
05 Marks 10%	10 Marks 20%	15 Marks 30%	10 Marks 20%	10 Marks 20%

Term End Theory Examination: *(with % weights):* (50 Marks)

Term End Practical Examination: *(with % weights):* (50 Marks)

Pedagogy:

1. Co-teaching
2. Power point presentations
3. Videos
4. Demonstrations
5. Systematic use of group work and project based learning