

**DIPLOMA PROGRAMME IN POLYMER TECHNOLOGY
CURRICULUM STRUCTURE**

SCHEME AT A GLANCE

Level	Name of Level	Total Number of Courses offered	Number of Courses to be completed	TH	TU	PR	Total Hours	Total Credits	Marks
Level-1	Foundation Courses	09	09 Compulsory	16	01	18	35	26	950
Level-2	Basic Technology Courses	07	07 Compulsory	16	--	12	28	22	1050
Level-3	Allied courses	06	04 (03 Compulsory +01 Electives)	06	--	06	12	09	250
Level-4	Applied Technology Courses	09	09 Compulsory	28	--	24	52 +32	54	1350
Level-5	Diversified Courses	07	03 (01 Compulsory +02 Electives)	06	--	06	12	09	400
TOTAL		38	29 Compulsory +03 Electives 32	72	01	66	171	120	4000
Audit Courses		04	04	06	--	02	08	--	--
Grand Total		42	36	78	01	68	179	120	4000

Abbreviation:

TH-Theory, TU-Tutorial, PR-Practical

PROGRAMME - DIPLOMA IN POLYMER TECHNOLOGY

PROGRAMME STRUCTURE LEVEL - 1 FOUNDATION COURSES

Sr. No.	Course Code	Course Title	Course Abbr.	TEACHING SCHEME					EXAMINATION SCHEME						
				Hours per Week				Total Credits	Theory Paper		Test	PR	OR	TW	Total
				TH	TU	PR	Total Hrs		Hrs	Mark					
01	21101	Communication Skills	CMS	02	--	02	04	03	03	80	20	--	--	50	150
02	21102	Engineering Mathematics	EMT	02	01	--	03	03	03	80	20	--	--	--	100
03	21103	Applied Mathematics	AMT	03	--	--	03	03	03	80	20	--	--	--	100
04	21104	Applied Physics	PHY	03	--	02	05	04	02	80#	20#	--	--	50	150
05	21105	Applied Chemistry	CHY	03	--	02	05	04	02	80#	20#	--	--	50	150
06	21107	Engineering Graphics	EGR	--	--	04	04	02	--	--	--	--	--	50	50
07	21108	Engineering Mechanics	EMH	03	--	02	05	04	03	80	20	--	--	50	150
08	21109	Workshop Practice	WSP	--	--	04	04	02	--	--	--	--	--	50	50
09	21110	Introduction to IT System	ITS	--	--	02	02	01	--	--	--	--	--	50	50
TOTAL			--	16	01	18	35	26	--	480	120	25	--	350	950

Level:1

Total Courses : 09
 Total Credits : 26
 Total Marks : 950

Abbreviations:

Abbr: Course Abbreviation, TH: Theory, TU: Tutorial, PR: Practical, OR: Oral, TW: Term Work

Course code Indication:

First two digit :Indicates last two digits of Year of Implementation of Curriculum
 Third digit : Indicates Level.
 Fourth & fifth digit : Indicates Course Number.

Assessment of PR/OR/TW:

- 1) All orals & practicals are to be assessed by external & internal examiners.
- 2) * Indicates TW to be assessed by external & internal examiners.
- 3) Other TW are to be assessed by internal examiners.
- 4) # indicates On line theory Examination

PROGRAMME - DIPLOMA IN POLYMER TECHNOLOGY
PROGRAMME STRUCTURE
LEVEL-2
BASIC TECHNOLOGY COURSES

Sr. No.	Course Code	Course Title	Abbreviation	TEACHING SCHEME					EXAMINATION SCHEME						
				Hours per Week				Total Credits	Theory Paper		Test	PR	OR	TW	Total
				TH	TU	PR	Total Hrs		Hrs	Mark					
01	21217	Computer Aided Graphics	CAG	--	--	02	02	01	--	--	--	--	--	100	100
02	21218	Hydraulics & Pneumatics	HYP	--	--	02	02	01	--	--	--	--	--	50	50
03	21219	Polymer Chemistry	PCH	04	--	02	06	05	03	80	20	--	50	50	200
04	21220	Fundamentals of Chemical Engineering	FCE	03	--	02	05	04	03	80	20	--	50	50	200
05	21221	Polymer Materials	PLM	03	--	02	05	04	03	80	20	--	50	50	200
06	21222	Organic Chemistry	OCH	03	--	02	05	04	03	80	20	50	--	50	200
07	21223	Advanced Polymers and Product Design	APP	03	--	--	03	03	03	80	20	--	--	--	100
TOTAL			--	16	--	12	28	22	--	400	100	50	150	350	1050

Level:2

Total Courses : 07
Total Credits : 22
Total Marks : 1050

Abbreviations :

PRQ: Prerequisite, TH: Theory, TU: Tutorial, PR: Practical, OR: Oral, TW: Term Work

Assessment of PR/OR/TW:

- 1) All Orals are to be assessed by external and internal examiner.
- 2) * Indicates TW to be assessed by external and internal examiner.
- 3) Other TW are to be assessed by internal examiner only.

PROGRAMME - DIPLOMA POLYMER TECHNOLOGY
PROGRAMME STRUCTURE
LEVEL-3
ALLIED COURSES

Sr. No.	Course Code	Course Title	Course Abbr.	TEACHING SCHEME					EXAMINATION SCHEME						
				Hours per Week				Total Credits	Theory Paper		Test	PR	OR	TW	Total
				TH	TU	PR	Total Hrs		Hrs	Mark					
01	21301	Entrepreneurship and Start-ups	EPS	01	--	02	03	02	--	--	--	--	--	50	50
02	21303	Programing and Problem Solving	PPS	01		02	03	02	--	--	--	--	--	50	50
03	21308	Industrial Organization and Management	IOM	03	--	--	03	03	03	80	20	--	--	--	100
Elective I: Any ONE of the following															
04	21305	Artificial Intelligence	ARI	01	--	02	03	02	--	--	--	--	--	50	50
	21306	Internet of Things	IOT	01	--	02	03	02	--	--	--	--	--	50	50
	21310	Solid Modeling	SDM	01	--	02	03	02	--	--	--	--	--	50	50
TOTAL			--	06	--	06	12	09	--	80	20	--	--	150	250

Level:3

Total Courses : 04
Total Credits : 09
Total Marks : 250

Abbreviations :

PRQ: Prerequisite, TH: Theory, TU: Tutorial, PR: Practical, OR: Oral, TW: Term Work

Assessment of PR/OR/TW:

- 1) All Orals are to be assessed by external and internal examiner.
- 2) * Indicates TW to be assessed by external and internal examiner.
- 3) Other TW are to be assessed by internal examiner only.

PROGRAMME -DIPLOMA IN POLYMER TECHNOLOGY
PROGRAMME STRUCTURE
LEVEL-4
APPLIED TECHNOLOGY COURSES

Sr. No.	Course Code	Course Title	Abbreviation	TEACHING SCHEME					EXAMINATION SCHEME						
				Hours per Week				Total Credits	Theory Paper		Test	PR	OR	TW	Total
				TH	TU	PR	Total Hrs		Hrs	Mark					
01	21410	Industrial Training	ITR	--	--	--	--	14	--	--	--	--	100	100	200
02	21411	Project	PRO	--	--	04	04	02	--	--	--	--	50	50	100
03	21417	Polymer Composites and Blends	CAB	04	--	02	06	05	03	80	20	--	25	25	150
04	21418	Elastomer Technology	EST	04	--	02	06	05	03	80	20	--	25	25	150
05	21419	Moulds and Dies for Polymers	MDP	04	--	02	06	05	04	80	20	--	25	25	150
06	21420	Additives for Polymers	AFP	04	--	02	06	05	03	80	20	--	25	25	150
07	21421	Polymer Moulding Techniques	PMT	04	--	04	08	06	03	80	20	--	25	25	150
08	21422	Polymer Processing Techniques	PPT	04	--	04	08	06	03	80	20	--	25	25	150
09	21423	Testing of Polymers	TOP	04	--	04	08	06	03	80	20	25	--	25	150
TOTAL			--	28	--	24	52	54	--	560	140	25	300	325	1350

Level:4

Total Courses : 09
Total Credits : 54
Total Marks : 1350

Abbreviations :

PRQ: Prerequisite, TH: Theory, TU: Tutorial, PR: Practical, OR: Oral, TW: Term Work

Assessment of PR/OR/TW:

- 1) All Orals are to be assessed by external and internal examiner.
- 2) * Indicates TW to be assessed by external and internal examiner.
- 3) Other TW are to be assessed by internal examiner only.

**PROGRAMME -DIPLOMA IN POLYMER TECHNOLOGY
PROGRAMME STRUCTURE
LEVEL-5
DIVERSIFIED COURSES**

Sr. No.	Course Code	Course Title	Abbreviation	TEACHING SCHEME					EXAMINATION SCHEME						
				Hours per Week				Total Credits	Theory Paper		Test	PR	OR	TW	Total
				TH	TU	PR	Total Hrs		Hrs	Mark					
Compulsory															
01	21515	Maintenance of Polymer Processing Machines	MPM	--	--	02	02	01	--	--	--	--	50	50	100
Elective II : Any ONE of the following															
02	21516	Fibre Technology	FTY	03	--	02	05	04	03	80	20	--	--	50	150
	21517	Tyre Technology	TYT	03	--	02	05	04	03	80	20	--	--	50	150
	21518	Polymer Waste Management	PWM	03	--	02	05	04	03	80	20	--	--	50	150
Elective III : Any ONE of the following															
03	21519	Polymer Packaging	PPG	03	--	02	05	04	03	80	20	--	--	50	150
	21520	Adhesives	ADH	03	--	02	05	04	03	80	20	--	--	50	150
	21521	Polymer Paints	PLP	03	--	02	05	04	03	80	20	--	--	50	150
TOTAL			--	06	--	06	12	09	--	160	40	--	50	150	400

Level:5

Total Courses : 03
Total Credits : 09
Total Marks : 400

Abbreviations :

PRQ: Prerequisite, TH: Theory, TU: Tutorial, PR: Practical, OR: Oral, TW: Term Work

Assessment of PR/OR/TW:

- 1) All Orals are to be assessed by external and internal examiner.
- 2) * Indicates TW to be assessed by external and internal examiner.
- 3) Other TW are to be assessed by internal examiner only.

**PROGRAMME -DIPLOMA IN POLYMER TECHNOLOGY
PROGRAMME STRUCTURE
AUDIT COURSES**

Sr. No.	Course Code	Course Title	Course Abbr.	Contact Hours Per Week (TH)	Contact Hours Per Week (PR)	Total Contact Hours Per Week	Total Credits
01	21001	Environmental science	EVS	02	--	02	--
02	21002	Sports and Yoga	SPY	--	02	02	--
03	21003	Essence of Indian Knowledge and Tradition	IKT	02	--	02	--
04	21004	Indian Constitution	ICN	02	-	02	--
		TOTAL	--	06	02	08	--

Total Courses : 04
Total Credits : Nil
Total Marks : --

PROGRAMME- DIPLOMA IN POLYMER TECHNOLOGY
Courses For Award Of Class

Sr. No.	Course Code	Course Title	Course Abbr.	TEACHING SCHEME					EXAMINATION SCHEME						
				Hours per Week				Total Credits	Theory Paper		Test	PR	OR	TW	Total
				TH	TU	PR	Total Hrs		Hrs	Mark					
01	21223	Advanced Polymers and Product Design	APP	03	--	--	03	03	03	80	20	--	--	--	100
02	21308	Industrial Organization and Management	IOM	03	--	--	03	03	03	80	20	--	--	--	100
03	21410	Ind. Training	ITR	--	--	--	32	14	--	--	--	--	100	100	200
04	21411	Project	PRO	--	--	04	04	02	--	--	--	--	50	50	100
05	21417	Polymer Composites and Blends	CAB	04	--	02	06	05	03	80	20	--	25	25	150
06	21418	Elastomer Technology	EST	04	--	02	06	05	03	80	20	--	25	25	150
07	21419	Moulds and Dies for Polymers	MDP	04	--	02	06	05	04	80	20	--	25	25	150
08	21420	Additives for Polymers	AFP	04	--	02	06	05	03	80	20	--	25	25	150
09	21421	Polymer Moulding Techniques	PMT	04	--	04	08	06	03	80	20	--	25	25	150
10	21422	Polymer Processing Techniques	PPT	04	--	04	08	06	03	80	20	--	25	25	150
11	21423	Testing of Polymers	TOP	04	--	04	08	06	03	80	20	25	--	25	150
Elective II: Any ONE of the following															
12	21516	Fibre Technology	FTY	03	--	02	05	04	03	80	20	--	--	50	150
	21517	Tyre Technology	TYT	03	--	02	05	04	03	80	20	--	--	50	150
	21518	Polymer Waste Management	PWM	03	--	02	05	04	03	80	20	--	--	50	150
TOTAL			--	37	--	26	95	64	--	800	200	25	300	375	1700

Total Courses : 12
 Theory Papers : 10
 Total Theory Marks : 1000
 Total PR/OR/TW Marks : 700
 Total Marks : 1700
 Total Credits : 64

Assessment of PR/OR/TW:

- 1) All orals and practicals are to be assessed by external and internal examiners.
- 2) * Indicates TW to be assessed by external and internal examiners.
- 3) Other TW are to be assessed by internal examiners.

PROGRAMME - DIPLOMA IN POLYMER TECHNOLOGY
SAMPLE PATH
ENTRY LEVEL- 10+

Nature of Course	First Year		Second Year		Third Year		Total
	Odd Term	Even Term	Odd Term	Even Term	Odd Term	Even Term	
Compulsory	21101 (03) CMS	21103 (03) AMT	21218 (01) HYP	21308 (03) IOM	21303 (02) PPS	21410 (14) ITR	
	21102 (03) EMT	21104 (04) PHY	21219 (05) PCH	21417 (05) CAB	21411 (02) PRO		
	21105 (04) CHY	21107 (02) EGR	21221 (04) PLM	21419 (05) MDP	21418 (05) EST		
	21109 (02) WSP	21108 (04) EMH	21301 (02) EPS	21421 (06) PMT	21422 (06) PPT		
	21110 (01) ITS	21222 (04) OCH	21420 (05) AFP	21515 (01) MPM	21423 (06) TOP		
	21220 (04) FCE	21217 (01) CAG	21223 (03) APP			--	
	--	--	--	--	--	--	
Total credits (Compulsory)	17	18	20	20	21	14	110
Elective	--	--	Any ONE from Elective-I 21305 ARI, 21306 IOT, 21310 SDM :(02)	Any ONE from Elective-II 21516 FTY, 21517 TYT, 21518 PWM :(04)	Any ONE from Elective-III 21519 PPG, 21520 ADH, 21521 PLP :(04)		--
	--	--	--	--	--	--	--
Total Credits (Elective)	--	--	02	04	04	--	10
Total Courses	06	06	07	06	06	01	32
Audit Courses	21002 SPY(00)	21001 EVS(00)	21003 IKT(00)	21004 ICN(00)	--	--	--
Total Credits (Compulsory + Elective)	17	18	22	24	25	14	120
Grand Total of Credits	--	--	--	--	--	--	120

Note: Figures in bracket indicates total credits.