



Government Polytechnic, Nagpur

Diploma in Textile Manufacture

NEP 2020 Align Curriculum 2026 Program Structure



Semester: First

Sem Duration: 16 Weeks

NCrF Entry Level: 3.0

SN	Course Code	Course Title		Pre-requisite Course/ Credits	Course Category	Total IKS Hours	Learning Scheme (Hours/Week)				Notional Hours/ Week (Total Notional Hours)		Credits	Assessment Scheme (Marks)						Total Marks	
														CL		TL/LL		SL			
							CL	TL	LL	SL	NLH			Cr	SA	FA	SA	FA	SA		
1	MH101K	Basic Mathematics			Nil	DSC	4	4	2	-	2	8	(120)	4	70 %	@	30	-	25	25 %	150
2	CH101K	Applied Chemistry			Nil	DSC	2	4	-	2	2	8	(120)	4	70 %	@	30	25	25 %	25	175
3	ME156K	Engineering Graphics (Textile)			Nil	DSC	2	2	-	4	-	6	(90)	3				50 %	50	-	100
4	EN101K	Communication Skills			Nil	AEC	-	3	-	2	1	6	(90)	3	70 %	@	30	25	25 %	25	175
5	WS154K	Workshop Practice (Textile)			Nil	SEC	-	-	-	4	-	4	(60)	2	-		-	50 %	50	-	100
6	CM151K	Basics of Computer			Nil	SEC	-	-	-	2	2	4	(60)	2	-		-	25 %	25	25 %	75
7	VE151K	Integrated Personality Development			Nil	VEC	-	-	-	2	2	4	(60)	2	-		-	25 %	25	25 %	75
						Total	8	13	2	16	9	40	(600)	20	210		90	200	225	125	850

Abbreviations:

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Symbols: Classroom Learning Summative Assessment: ** Objective Type Online 1 Hour Duration, *@ 3 Hour Duration, *# 4 Hour Duration, + Laboratory Learning Summative Assessment: + External Examiner, % Internal Examiner Only . ₹ Course for Award of Diploma, \$ Online Mode

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Government Polytechnic, Nagpur

Diploma in Textile Manufacture



NEP 2020 Align Curriculum 2026 Program Structure

Semester: Second

Sem Duration: 16 Weeks

NCrF Entry Level: 3.0

SN	Course Code	Course Title		Pre-requisite Course/ Credits	Course Category	Total IKS Hours	Learning Scheme (Hours/Week)				Notional Hours/ Week (Total Notional Hours)		Credits	Assessment Scheme (Marks)					Total Marks	
														CL		TL/LL		SL		
							CL	TL	LL	SL	NLH		Cr	SA	FA	SA	FA	SA		
1	MH104K	Applied Mathematics		MH101K	DSC	4	4	2	-	2	8	(120)	4	70	*@	30	-	25	25%	150
2	PH101K	Applied Physics		Nil	DSC	2	4	-	2	2	8	(120)	4	70	*@	30	25	25%	25	175
3	EE103K	Basic Electrical & Electronics		Nil	DSC	-	3	-	2	1	6	(90)	3	70	**	30	25	25%	25	175
4	TX101K	Fibre Opening and Cleaning		Nil	DSC	-	3	-	2	1	6	(90)	3	70	*@	30	25	25%	25	175
5	EN151K	Business Communication		Nil	AEC	-	2	-	2	-	4	(60)	2	-	-	-	25	25%	25	50
6	TX151K	Elementary Fabric Structure		Nil	SEC	-	-	-	4	-	4	(60)	2	-	-	-	50	50%	50	100
7	VE152K	Environmental Sustainability		Nil	VEC	10	-	-	2	2	4	(60)	2	-	-	-	25	25%	25	75
					Total	16	16	2	14	8	40	(600)	20	280	120	175	200	125	900	

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NEP 2020 Align Curriculum 2026 Program Structure



Scheme: First Year Exit

Duration: 4 Weeks

NCrF Entry Level: 3.5

SN	Course Code	Course Title		Pre-requisite Course/ Credits	Course Category	Total IKS Hours	Learning Scheme (Hours/Week)				Notional Hours/ Week (Total Notional Hours)		Credits	Assessment Scheme (Marks)						Total Marks
														CL		TL/LL		SL		
							CL	TL	LL	SL	NLH			Cr	SA	FA	SA	FA	SA	
1	IN151K	Internship (Basic Skills)		40 Cr	INP	-	-	-	-	8	8	(120)	4	-	-	-	-	50 +	50	
					Total	0	0	0	0	8	8	(120)	4	0	0	0	0	50	50	

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NEP 2020 Align Curriculum 2026 Program Structure



Semester: Third

Sem Duration: 16 Weeks

NCrF Entry Level: 3.5

SN	Course Code	Course Title		Pre-requisite Course/ Credits	Course Category	Total IKS Hours	Learning Scheme (Hours/Week)				Notional Hours/ Week (Total Notional Hours)		Credits	Assessment Scheme (Marks)						Total Marks
							CL	TL	LL	SL	NLH	Cr		CL		TL/LL		SL		
														SA	FA	SA	FA	SA		
1	TX201K	Sliver Formation		TX101K	DSC	-	4	-	2	2	8	(120)	4	70 %	30	25 %	25	25 %	175	
2	TX202K	Yarn Preparation for Weaving		Nil	DSC	-	3	-	2	1	6	(90)	3	70 %	30	25 %	25	25 %	175	
3	TX203K	Yarn Sizing & Loom		Nil	DSC	-	3	-	2	1	6	(90)	3	70 %	30	25 %	25	25 %	175	
4	TX204K	Fibre & Yarn testing		TX101K	DSC	-	3	-	2	1	6	(90)	3	70 %	30	25 %	25	25 %	175	
5	TX205K	Garment Technology		Nil	DSC	-	3	-	2	1	6	(90)	3	70 %	30	25 %	25	25 %	175	
6	TX251K	Advanced Fabric Structure		TX151K	SEC	-	2	-	4	-	6	(90)	3	-	-	50 %	50	-	100	
7	VE252K	Yoga & Meditation		Nil	VEC	30	-	-	2	-	2	(30)	1	-	-	25 %	25	-	50	
					Total	30	18	0	16	6	40	(600)	20	350	150	200	200	125	1025	

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NEP 2020 Align Curriculum 2026 Program Structure



Semester: Fourth

Sem Duration: 16 Weeks

NCrF Entry Level: 3.5

SN	Course Code	Course Title	Pre-requisite Course/ Credits	Course Category	Total IKS Hours	Learning Scheme (Hours/Week)				Notional Hours/ Week (Total Notional Hours)		Credits	Assessment Scheme (Marks)						Total Marks
													CL		TL/LL		SL		
						CL	TL	LL	SL	NLH			Cr	SA	FA	SA	FA	SA	
1	TX206K	Roving & Yarn Formation	₹ TX201K	DSC	-	4	-	2	2	8	(120)	4	70 * [@]	30	25 +	25	25 %	175	
2	TX207K	Dobby, Jacquard & Autoloom	₹ TX203K	DSC	-	3	-	2	1	6	(90)	3	70 * [@]	30	25 +	25	25 %	175	
3	TX208K	Fibre Science & Technology		Nil	DSC	-	3	-	2	6	(90)	3	70 * [@]	30	25 +	25	25 %	175	
4	TXXXXK	Discipline Specific Elective		Nil	DSE	-	3	-	2	6	(90)	3	70 * [@]	30	25 %	25	25 %	175	
5	TX252K	Fabric Testing		TX204K	SEC	-	-	-	4	4	(60)	2	-	-	50 +	50	-	100	
6	##291K	Open Elective		Nil	OE	-	2	-	2	4	(60)	2	70 **	30	25 %	25	-	150	
7	IN251K	Entrepreneurship & Startup		Nil	INP	-	2	-	2	4	(60)	2	-	-	25 %	25	-	50	
8	VE251K	Indian Constitution		Nil	VEC	-	1	-	1	2	(30)	1	-	-	-	-	50 %	50	
				Total	0	18	0	16	6	40	(600)	20	350	150	200	200	150	1050	

List of Discipline Specific Elective I

1	TX209K	Technical Textile	Nil
2	TX210K	Geo-Synthetic Textile	Nil
3	TX211K	High Performance Fibre	Nil

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NEP 2020 Align Curriculum 2026 Program Structure

Scheme: Second Year Exit

Duration: 4 Weeks

NCrF Entry Level: 4.0

SN	Course Code	Course Title		Pre-requisite Course/ Credits	Course Category	Total IKS Hours	Learning Scheme (Hours/Week)				Notional Hours/ Week (Total Notional Hours)		Credits	Assessment Scheme (Marks)						Total Marks
														CL		TL/LL		SL		
							CL	TL	LL	SL	NLH		Cr	SA	FA	SA	FA	SA		
1	IN252K	Internship (Vocational Skills)		80 Cr	INP	-	-	-	-	8	8	(120)	4	-	-	-	-	50 +	50	
					Total	0	0	0	0	8	8	(120)	4	0	0	0	0	50	50	

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NEP 2020 Align Curriculum 2026 Program Structure



Semester: Fourth

List of Open Elective Courses

SN	Course Code	Course Title
1	CE291K	Civil Engineering Practice
2	ME291K	Elements of Mechanical Engineering
3	EE291K	Electrical Generation, Transmission and Distribution
4	EC291K	Microcontroller And Applications
5	IT291K	Python Programming
6	MT291K	Foundry Technology
7	AE291K	Basics of Automobile
8	PK291K	Basics of Packaging Technology
9	CM291K	Web Development
10	MK291K	Basic Mechatronics
11	AI291K	Basics of Artificial Intelligence
12	TR291K	Adventure Tourism
13	NP291K	Any one NPTEL Course of more than 8 week duration

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NEP 2020 Align Curriculum 2026 Program Structure



Semester: Fifth

Sem Duration: 16 Weeks

NCrF Entry Level: 4.0

SN	Course Code	Course Title		Pre-requisite Course/ Credits	Course Category	Total IKS Hours	Learning Scheme (Hours/Week)				Notional Hours/ Week (Total Notional Hours)		Credits	Assessment Scheme (Marks)						Total Marks	
														CL		TL/LL		SL			
							CL	TL	LL	SL	NLH			Cr	SA	FA	SA	FA	SA		
1	TX301K	Advanced Yarn & fabric Manufacturing	₹	TX201K& TX203K	DSC	-	4		2	2	8	(120)	4	70	*@	30	25	+	25	%	175
2	TX302K	Process Control in Spinning & Weaving	₹	TX201K& TX203K	DSC	-	3	-	2	1	6	(90)	3	70	*@	30	25	+	25	%	175
3	TX303K	Production Planning & Organisation	₹	TX201K& TX203K	DSC	-	3	-	2	1	6	(90)	3	70	*@	30	25	+	25	%	175
4	TX304K	Textile Processing	₹	TX203K	DSC	2	3	-	2	1	6	(90)	3	70	*@	30	25	+	25	%	175
5	TXXXXK	Discipline Specific Elective	₹	Nil	DSE	-	4	-	2	-	6	(90)	3	70	*@	30	25	%	25	-	150
6	TX351K	Capstone Project	₹	40 Cr	SEC	-	-	-	4	-	4	(60)	2	-		-	75	+	75	-	150
7	TX352K	Application of Software in Textile Industry	₹	Nil	SEC	-	-	-	4	-	4	(60)	2	-		-	50	%	50	-	100
					Total	2	17	0	18	5	40	(600)	20	350		150	250		250	100	1100

List of Discipline Specific Elective II

1	TX305K	Knitting Technology	Nil
2	TX306K	Fashion Designing	Nil
3	TX307K	Apparel Merchandising	Nil

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Diploma in Textile Manufacture

NEP 2020 Align Curriculum 2026 Program Structure



Semester: Sixth

Sem Duration: 16 Weeks

NCrF Entry Level: 4.0

SN	Course Code	Course Title	Pre-requisite Course/ Credits	Course Category	Total IKS Hours	Learning Scheme (Hours/Week)				Notional Hours/ Week (Total Notional Hours)		Credits	Assessment Scheme (Marks)						Total Marks
													CL		TL/LL		SL		
						CL	TL	LL	SL	NLH			Cr	SA	FA	SA	FA	SA	
1	IN351K	Internship (16 Weeks)	₹ 50 Cr	INP	-	-	-	2	30	32	(480)	16	-	-	100 +	-	100 %	200	
2	SE351K	Seminar	₹ 50 Cr	AEC	-	-	-	2	2	4	(60)	2	-	-	50 %	-	50 %	100	
3	IN301K	Industrial Management	\$ Nil	INP	1	4	-	-	-	4	(60)	2	70 **	30	-	-	-	100	
				Total	1	4	0	4	32	40	(600)	20	70	30	150	0	150	400	

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NEP 2020 Align Curriculum 2026 Program Structure

List of Courses for Award of Diploma in Engineering



SN	Semester	Course Code	Course Title	Credits	Total Marks
1	Fourth	TX206K	Roving & Yarn Formation	4	175
2	Fourth	TX207K	Dobby, Jacquard & Autoloom	3	175
3	Fifth	TX301K	Advanced Yarn & fabric Manufacturing	4	175
4	Fifth	TX302K	Process Control in Spinning & Weaving	3	175
5	Fifth	TX303K	Production Planning & Organisation	3	175
6	Fifth	TX304K	Textile Processing	3	175
7	Fifth	TXXXXK	Discipline Specific Elective	3	150
8	Fifth	TX351K	Capstone Project	2	150
9	Fifth	TX352K	Application of Software in Textile Industry	2	100
10	Sixth	IN351K	Internship (16 Weeks)	16	200
11	Sixth	SE351K	Seminar	2	100
			Total	45	1750

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