



Government Polytechnic, Nagpur

Diploma in Civil Engineering

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	CE101K	Construction Materials		Nil	DSC	2	4	-	-		4	(60)	2	70 **	30	- %	-		100	
4	EN101K	Communication Skills		Nil	AEC	-	3	-	2	1	6	(90)	3	70 *@	30	25 %	25	25 %	175	
5	ME152K	Engineering Graphics (Civil)		Nil	SEC	2	2	-	4	-	6	(90)	3	- %	-	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	10	17	2	12	9	40	(600)	20	280	120	150	175	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 Civil Engineering

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	MH102K	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	AM101K	Engineering Mechanics	Nil	DSC	2	3	-	2	1	6	(90)	3	70 %	30	25 %	25	25	175	
4	CE102K	Building Construction	CE101K	DSC	1	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	-	50	
6	CE151K	Civil Engineering Workshop Practice	Nil	SEC	-	-	-	4	-	4	(60)	2	-	-	50 %	50	-	100	
7	VE152K	Environmental Sustainability	Nil	VEC	10	-	-	2	2	4	(60)	2	-	-	25 %	25	25	75	
				Total	19	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		
							CL	TL	LL	SL	NLH			Cr	SA	FA	SA	FA	SA	
1	AM201K	Mechanics of Structures		AM101K	DSC	1	4	-	2	2	8	(120)	4	70 *@	30	25 +	25	25	175	
2	AM202K	Concrete Technology		Nil	DSC	1	3	-	2	1	6	(90)	3	70 *@	30	25 %	25	25	175	
3	CE201K	Surveying		Nil	DSC	1	3	-	2	1	6	(90)	3	70 *@	30	25 +	25	25	175	
4	CE202K	Highway Engineering		Nil	DSC	1	3	-	2	1	6	(90)	3	70 *@	30	25 +	25	25	175	
5	CE203K	Maintenance and Repairs of Structure		Nil	DSC	1	4	-	2	-	6	(90)	3	70 *@	30	25 %	25	-	150	
6	CE251K	Building Drawing with CAD		Nil	SEC	1	2	-	4	-	6	(90)	3	-	-	50 +	50	-	100	
7	VE252K	Yoga & Meditation		Nil	VEC	30	-	-	2	-	2	(30)	1	-	-	25 %	25	-	50	
					Total	36	19	0	16	5	40	(600)	20	350	150	200	200	100	1000	

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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	AM203K	Geotechnical Engineering	₹	Nil	DSC	1	3	-	2	1	6	(90)	3	70 *@	30	25 +	25	25		175
2	AM204K	Theory of Structures		AM201K	DSC		4	-		2	6	(90)	3	70 *@	30	25 %	25	25		175
3	CE204K	Hydraulics	₹	Nil	DSC		4	-	2	2	8	(120)	4	70 *@	30	25 +	25	25		175
4	###XXXK	Discipline Specific Elective		Nil	DSE	-	3	-	2	1	6	(90)	3	70 *@	30	25 +	25			175
5	CE252K	Advanced Surveying		CE201K	SEC	-	2	-	2	-	4	(60)	2	70 *@	30	25 +	25	-		150
6	###291K	Open Elective		Nil	OE	-	2	-	2	-	4	(60)	2	70 **	30	25 %	25	-		150
7	IN201K	Entrepreneurship & Startup		Nil	INP	-	2	-	2	-	4	(60)	2			25 %	25	-		50
	VE251K	Indian Constitution		Nil	VEC	-	1	-	-	1	2	(30)	1	-	-	-	-	50		50
					Total	1	21	0	12	7	40	(600)	20	420	180	175	175	125		1100

List of Discipline Specific Elective I

1	CE205K	Solid Waste Management	Nil
2	CE206K	Advanced Building Services	Nil
3	CE207K	Railway Engineering	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	ME291K	Elements of Mechanical Engineering
2	EE291K	Electrical Generation, Transmission and Distribution
3	EC291K	Microcontroller And Applications
4	IT291K	Python Programming
5	MT291K	Foundry Technology
6	TX291K	General Textile 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	AM301K	Design of Structures	₹	AM204K	DSC	1	4	-	2	2	8	(120)	4	70 *@	30	25 +	25	25	175	
2	CE301K	Water Resources Engineering	₹	CE204K	DSC	1	3	-	2	1	6	(90)	3	70 *@	30	25 +	25	25	175	
3	CE302K	Environmental Engineering	₹	Nil	DSC	1	3	-	2	1	6	(90)	3	70 *@	30	25 +	25	25	175	
4	CE303K	Estimating and Costing	₹	Nil	DSC	-	2	-	4	2	8	(120)	4	70 *@	30	25 +	25	25	175	
5	AMXXXK	Discipline Specific Elective	₹	Nil	DSE	-	2	-	2		4	(60)	2	70 *@	30	25 +	25	-	150	
6	CE351K	Capstone Project	₹	40 Cr	SEC	-	-	-	4	-	4	(60)	2	-	-	50 +	50	50	150	
7	CE306K	Contracts and Accounts	₹	Nil	SEC	1	-	-	4	-	4	(60)	2	-	-	50 +	50	-	100	
					Total	4	14	0	20	6	40	(600)	20	350	150	225	225	150	1100	

List of Discipline Specific Elective II

1	AM305K	Advanced Concrete Technology	AM202K
2	AM306K	Advanced Design Of Structures	AM204K
3	AM307K	Earthquake Resistant Buildings	AM204K

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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	-	4	-	-	-	4	(60)	2	70 **	30	-	-	-	100	
					Total	0	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	AM203K	Geotechnical Engineering	3	175
2	Fourth	CE204K	Hydraulics	4	175
3	Fifth	AM301K	Design of Structures	4	175
4	Fifth	CE301K	Water Resources Engineering	3	175
5	Fifth	CE302K	Environmental Engineering	3	175
6	Fifth	CE303K	Estimating and Costing	4	175
7	Fifth	AMXXXK	Discipline Specific Elective	2	150
8	Fifth	CE351K	Capstone Project	2	150
9	Fifth	CE306K	Contracts and Accounts	2	100
10	Sixth	IN351K	Internship (16 Weeks)	16	200
11	Sixth	SE351K	Seminar	2	100
			Total	45	1750

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