



ANNEXURE – I

Credit Structure for Undergraduate programs

Sr. No.	Category Code	Category	Credits
1	HSSM	Ability Enhancement Course (AEC), Indian Knowledge System (IKS), Value Education Course (VEC), Entrepreneurship/Economics/Management courses	10
2	BSC	Basic Science courses	14
3	ESC	Engineering Science courses including workshop, drawing, basics of electrical/mechanical/computer etc.	16
4	PCC	Professional core courses	62
5	PEC	Professional Elective courses relevant to chosen specialization/branch	16
6	OE	Open subjects – Electives from other technical and /or emerging subjects	08
7	ELC	Project work, seminar and internship in industry or elsewhere, Industry Training and Skill Development, Capstone Course	22
8	VSEC	Vocations Skill Courses (VSC) , Skill Enhancement Courses(SEC)	10
9	CC	Co-curricular Courses (CC) such as Health and Wellness, Yoga education sports, and fitness, Cultural Activities, NSS/NCC and Fine/ Applied/ Visual/ Performing Arts	04
10	MDM	Compulsory Multidisciplinary Minor	14
		TOTAL	176

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B. Tech. Scheme of Examination & Syllabus 2023-24**CIVIL ENGINEERING****GROUP 1: SEMESTER I / GROUP 2: SEMESTER II**

Sr No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
				L	T	P		Continual Assessment	End Sem Examination	Total
1	BSC	AS101T	Engineering Physics & Material Sciences	2	-	-	2	15	35	50
2	BSC	AS101P	Engineering Physics & Material Sciences Lab	-	-	2	1	25	25	50
3	BSC	AS102T	Applied Mathematics – I	4	-	-	4	30	70	100
4	ESC	AS103T	Engineering Practices-I (Electrical & Electronics)	3	-	-	3	30	70	100
5	ESC	AS103P	Engineering Practices-I Lab(Electrical & Electronics)	-	-	2	1	25	25	50
6	ESC	AS104T	Logic building with C	2	-	-	2	15	35	50
7	ESC	AS104P	Logic building with C Lab	-	-	2	1	25	25	50
8	AEC	AS105P	Business Communication Skills I Lab	-	-	2	1	25	25	50
9	IKS	AS106T	Indian Knowledge Systems	2	-	-	2	15	35	50
10	SEC	AS107T	Career Development I	-	-	2	1	50	-	50
11	PCC	CV101T	Program Foundation I	2	-	-	2	15	35	50
12	CC	AS108T	Co-curricular Course - I	-	-	-	2	50		50
Total				15	0	10	22	320	380	700

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Sr No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
				L	T	P		Continual Assessment	End Sem Examination	Total
1	BSC	AS201T	Engineering Chemistry & Environmental Science	2	-	--	2	15	35	50
2	BSC	AS201P	Engineering Chemistry & Environmental Science Lab	-	-	2	1	25	25	50
3	BSC	AS202T	Applied Mathematics-II	4	-	-	4	30	70	100
4	ESC	AS203T	Engineering Practices-II (Civil & Mechanical)	3	-	-	3	30	70	100
5	ESC	AS203P	Engineering Practices-II Lab (Civil & Mechanical)	-	-	2	1	25	25	50
6	ESC	AS204T	Problem Solving with Python	2	-	-	2	15	35	50
7	ESC	AS204P	Problem Solving with Python Lab	-	-	2	1	25	25	50
8	AEC	AS205P	Business Communication Skills II Lab	-	-	2	1	25	25	50
9	SEC	AS206T	Career Development II	-	-	2	1	50	-	50
10	PCC	CV201T	Program Foundation II	2	-	-	2	15	35	50
11	ESC	AS207T	Design Thinking	2	-	-	2	30	70	100
12	CC	AS208T	Co-curricular Course - I	-	-	-	2	50		50
Total				15	0	10	22	345	405	750

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SEMESTER III

Sr No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
				L	T	P		Continual Assessment	End Sem Examination	Total
1	PCC	CV301T	Mathematics for Civil Engineers	4	-	-	4	30	70	100
2	PCC	CV302T	Solid Mechanics	3	-	-	3	30	70	100
3	PCC	CV302P	Solid Mechanics Lab	-	-	2	1	25	25	50
4	PCC	CV303T	Construction Materials & Concreting Techniques	3	-	-	3	30	70	100
5	PCC	CV303P	Construction Materials & Concreting Techniques Lab	-	-	2	1	25	25	50
6	PCC	CV304T	Environmental Engineering	3	-	-	3	30	70	100
7	PCC	CV304P	Environmental Engineering Lab	-	-	2	1	25	25	50
8	SEC	CV305P	Career Development III	-	-	2	1	50	-	50
9	VEC	CV306T	Value Education Course I	2	-	-	2	15	35	50
10	ELC	CV307P	Micro Project I*	-	-	2	1	50	-	50
Total				15	-	10	20	310	390	700
11	MDM	-	Multidisciplinary Minor - I	2	-	-	2	15	35	50
Total				17	-	10	22	325	425	750

* Field Project or Community engagement project in the major discipline

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SEMESTER IV

Sr No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
				L	T	P		Continual Assessment	End Sem Examination	Total
1	PCC	CV401T	Structural Analysis	3	-	-	3	30	70	100
2	PCC	CV401P	Structural Analysis Lab	-	-	2	1	25	25	50
3	PCC	CV402T	Fluid Mechanics	3	-	-	3	30	70	100
4	PCC	CV402P	Fluid Mechanics Lab	-	-	2	1	25	25	50
5	PCC	CV403T	Surveying & Geomatics	3	-	-	3	30	70	100
6	PCC	CV403P	Surveying & Geomatics Lab	-	-	2	1	25	25	50
7	OE	CV404T	Open Elective - I	2	-	-	2	15	35	50
8	VSC	CV405T	Technical Skill Development - I	2	-	-	2	50	-	50
9	VEC	CV406T	Value Education Course II	2	-	-	2	15	35	50
10	SEC	CV407P	Career Development - IV	-	-	2	1	50	-	50
11	ELC	CV408P	Micro Project II*	-	-	2	1	50	-	50
Total				15	-	10	20	345	355	700
12	MDM	-	Multidisciplinary Minor - II	3	-	-	3	30	70	100
Total				18	-	10	23	375	425	800

* Field Project or Community engagement project in the major discipline

Open Elective - I	
CV404T (I)	Construction Methodology
CV404T (II)	Environmental Engineering

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SEMESTER V

Sr No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
				L	T	P		Continual Assessment	End Sem Examination	Total
1	PCC	CV501T	Geotechnical Engineering	3	-	-	3	30	70	100
2	PCC	CV501P	Geotechnical Engineering Lab	-	-	2	1	25	25	50
3	PCC	CV402T	Transportation Engineering	3	-	-	3	30	70	100
4	PCC	CV402P	Transportation Engineering Lab	-	-	2	1	25	25	50
5	PCC	CV503T	Reinforced Cement Concrete Structures	3	-	-	3	30	70	100
6	PCC	CV503P	Reinforced Cement Concrete Structures Lab	-	-	4	2	50	50	100
7	PCC	CV504T	Hydrology & Water Resources	3	-	-	3	30	70	100
8	OE	CV505T	Open Elective - II	3	-	-	3	30	70	100
9	VSC	CV506T	Technical Skill Development - II	2	-	-	2	50	-	50
10	SEC	CV507P	Career Development - V	-	-	2	1	50	-	50
Total				17	-	10	22	350	450	800
11	MDM	-	Multidisciplinary Minor - III	3	-	-	3	30	70	100
Total				20	-	10	25	380	520	900

Open Elective - II	
CV505T(I)	Green Buildings

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SEMESTER VI

Sr No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
				L	T	P		Continual Assessment	End Sem Examination	Total
1	PCC	CV601T	Steel Structures	3	-	-	3	30	70	100
2	PCC	CV601P	Steel Structures Lab	-	-	4	2	50	50	100
3	PCC	CV602P	Building Design & Drawing Lab	-	-	4	2	50	50	100
4	PEC	CV603T	Professional Elective - I	3	-	-	3	30	70	100
5	PEC	CV603P	Professional Elective – I Lab	-	-	2	1	25	25	50
6	PEC	CV604T	Professional Elective - II	3	-	-	3	30	70	100
7	AEC	AS601T	Economics. & Management	2	-	-	2	15	35	50
8	OE	CV606T	Open Elective- III	3	-	-	3	30	70	100
9	ELC	CV607P	Project - I	-	-	4	2	50	50	100
10	SEC	CV608P	Career Development - IV	-	-	2	1	50	-	50
Total				14	-	16	22	360	490	850
11	MDM	-	Multidisciplinary Minor - IV	3	-	-	3	30	70	100
Total				17	-	16	25	390	560	950

Professional Elective - I

CV603TP (i)	Advanced Structural Analysis
CV603TP (ii)	Advanced Surveying

Professional Elective - II

CV604T (i)	Advanced Reinforced Cement Concrete Structures
CV604T (ii)	Air Pollution & Control
CV604T (iii)	Foundation Engineering
CV604T (iv)	Advanced Traffic Engineering

Open Elective - III

CV606T (i)	Transportation Systems
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SEMESTER VII

Sr No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
				L	T	P		Continual Assessment	End Sem Examination	Total
1	PCC	CV701T	Estimation & Costing	3	-	-	3	30	70	100
2	PCC	CV701P	Estimation & Costing lab	-	-	2	1	25	25	50
3	PCC	CV702T	Construction Management & Law	3	-	-	3	30	70	100
4	PEC	CV703T	Professional Elective - III	3	-	-	3	30	70	100
5	PEC	CV704T	Professional Elective - IV	3	-	-	3	30	70	100
6	PEC	CV705T	Professional Elective - V	3	-	-	3	30	70	100
7	ELC	CV706P	Project - II	-	-	8	4	50	50	100
8	ELC	CV707P	Summer / Winter Internship*	-	-	-	2	50	--	50
Total				15	-	10	22	275	425	700
9	MDM	-	Multidisciplinary Minor - IV	3	-	-	3	30	70	100
Total				18	-	10	25	305	495	800

* Summer / Winter Internship (Evaluation of Four weeks Internship Completion till 6th Semester)

Professional Elective - III	
CV703T (i)	Advanced Steel Design
CV703T T (ii)	Metro Rail Transportation Design & Construction
CV703T (iii)	Geotechnical Exploration & Ground Improvement Techniques

Professional Elective - IV	
CV704T (i)	Earthquake Resistant Design of Concrete Structures
CV704T (ii)	Urban Transportation Planning
CV704T (iii)	Irrigation Engineering
CV704T(iv)	Building Services

Professional Elective - V	
CV705T (i)	Repairs & Rehabilitation of Structures
CV705T (ii)	Pavement Design
CV705T (iii)	Solid Waste Management

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B. Tech. Scheme of Examination & Syllabus 2023-24**CIVIL ENGINEERING****SEMESTER VIII****Option A**

Sr No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
				L	T	P		Continual Assessment	End Sem Examination	Total
1	ELC	CV801P*	Project based on one semester internship in Industry/Research Institute/ National Laboratories/ Incubation Center	-	-	-	12	300	100	400
Total				0	0	0	12	300	100	400

*End semester examination will consist of evaluation of seminar & project report.

Option B

Sr No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
				L	T	P		Continual Assessment	End Sem Examination	Total
1	ELC	CV802P#	Institutional Internship	-	-	12	6	100	100	200
2	ELC	CV803P	Project – III	-	-	12	6	100	100	200
Total				0	0	0	12	200	200	400

Option B is available to students only after recommendation of the concerned Head of the department. The project and internship should contribute towards career development plan of the students.

* Minimum 90 days internship in any industry and project is to be carried out during internship.

Two NPTEL courses (as per choice of student) or Institutional Internship by IEDC, SVP CET.

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EXIT OPTIONS

Award of UG Certificate in Major with 40 credits and an additional 8 credits (After First Year)

EXIT COURSES			
S.N.	Course name	Mode of conduction	Credits

Award of UG Diploma in Major with _____ credits and an additional 8 credits (After Second Year)

EXIT COURSES			
S.N.	Course name	Mode of conduction	Credits

Award of UG Degree in Major with _____ credits and an additional 8 credits (After Third Year)

EXIT COURSES			
S.N.	Course name	Mode of conduction	Credits

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Multidisciplinary Minor

Minor 1 :- Management

Sr No	Sem	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
					L	T	P		Continual Assessment	End Sem Examination	Total
1		MDM									
2		MDM									
3		MDM									
4		MDM									
				Total				14			

Multidisciplinary Minor

Minor 2 :- Emerging Trends

Sr No	Sem	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
					L	T	P		Continual Assessment	End Sem Examination	Total
1		MDM									
2		MDM									
3		MDM									
4		MDM									
				Total				14			

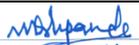
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