



REGULATIONS 2019
FLEXIBLE CHOICE BASED CREDIT SYSTEM
DEPARTMENT OF CIVIL ENGINEERING
B.E. Civil Engineering
CURRICULUM

S.No	Remarks	Category	Course Code R2024	Course Code R2019	Course Title	Prerequisite	Theory Credits	Practical Credits	Total Credits	CGPA / Non - CGPA	Course Type
1	Exempted for LE, Any 1 for Regular	HS	SH1101	19EN101	Communicative English	-	3	1	4	CGPA	TIP (6 Expts)
2	Exempted for LE, Any 1 for Regular	HS	SH1106	19EN106	English for Engineers	-	3	1	4	CGPA	TIP (6 Expts)
3	Exempted for LE, Option 1 for Regular	HS	NA	19EN102	Technical English	-	3	1	4	CGPA	TIP (6 Expts)
4	Exempted for LE, Option 2 for Regular	HS	SH1107	19EN107	Technical Writing and Presentation	-	0	2	2	CGPA	Practical (10 Expts)
5	Exempted for LE, Option 2 for Regular	HS	SH1105	19EN105	Public Speaking	-	0	3	3	CGPA	Practical (10 Expts)
6		HS	NA	19MS151	Principles of Management	-	3	0	3	CGPA	Theory
7		HS	NA	19MS152	Total Quality Management	-	3	0	3	CGPA	Theory
8	Exempted for LE	HS	SH7101	22HS101	தமிழர் மரபு/ Heritage of Tamils	-	1	0	1	CGPA	Theory (Int Only)
9	Exempted for LE	HS	SH7102	22HS102	தமிழரும் தொழில்நுட்பமும்/ Tamils and Technology	-	1	0	1	CGPA	Theory (Int Only)
10	Exempted for LE	BS	SH2201	19MA201	Calculus and Matrix Algebra	-	4	0	4	CGPA	Theory
11		BS	SH2211	19MA211	Statistics and Numerical Methods	-	3	1	4	CGPA	TIP (6 Expts)
12	Exempted for LE, Any 1 for Regular	BS	NA	19MA205	Differential Equations and Laplace Transforms	19MA201	4	0	4	CGPA	Theory
13	Exempted for LE, Any 1 for Regular	BS	SH2224	19MA224	Transforms and Differential Equations	-	4	0	4	CGPA	Theory
14	Exempted for LE	BS	NA	19PH201	Basics of Engineering Physics	-	3	0	3	CGPA	Theory
15	Exempted for LE	BS	SH3209	19PH209	Physics for Civil Engineering	19PH201 / NA	3	1	4	CGPA	TIP (6 Expts)
16	Exempted for LE	BS	NA	19CY203	Chemistry for Civil Engineering	-	3	1	4	CGPA	TIP (6 Expts)
17		BS	NA	19BY202	Introduction to Ecology	-	2	0	2	CGPA	Theory
18		ES	NA	19CS301	Problem Solving and Python Programming	-	3	1	4	CGPA	TIP (6 Expts)
19	Exempted for LE	ES	EC2306	19EE306	Basic Electrical, Electronics and Instrumentation Engineering	-	2	1	3	CGPA	TIP (6 Expts)
20	Exempted for LE	ES	NA	19CE301	Engineering Drawing and Modeling	-	2	2	4	CGPA	TIP (10 Expts)
21	Exempted for LE, Any 1 for Regular	ES	NA	19CE302	Applied Mechanics	-	4	0	4	CGPA	Theory
22	Exempted for LE, Any 1 for Regular	ES	CE0306	19CE306	Engineering Mechanics	-	4	0	4	CGPA	Theory

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23		ES	CE0303	19CE303	Fluid Mechanics	-	3	1	4	CGPA	TIP (6 Expts)
24		ES	NA	19CE304	Building Science and Technology	-	3	1	4	CGPA	TIP (6 Expts)
25	Exempted for LE	ES	NA	19CE305	Engineering Geology	-	3	0	3	CGPA	Theory
26		PC	CE0401	19CE401	Mechanics of Materials	19CE302 / 19CE306 / CE0306	3	1	4	CGPA	TIP (6 Expts)
27		PC	CE0402	19CE402	Surveying	-	3	1	4	CGPA	TIP (6 Expts)
28		PC	CE0403	19CE403	Soil Mechanics	-	3	1	4	CGPA	TIP (6 Expts)
29		PC	CE0404	19CE404	Applied Hydraulic Engineering	19CE303 / CE0303	2	1	3	CGPA	TIP (6 Expts)
30		PC	NA	19CE405	Concrete Technology	-	3	0	3	CGPA	Theory
31		PC	NA	19CE406	Structural Analysis	19CE401	4	0	4	CGPA	Theory
32		PC	CE0407	19CE407	Transportation Engineering	-	2	1	3	CGPA	TIP (6 Expts)
33	Option 1	PC	NA	19CE408	Environmental Engineering I	19CE404	3	1	4	CGPA	TIP (6 Expts)
34	Option 1	PC	NA	19CE415	Environmental Engineering II	19CE408	3	1	4	CGPA	TIP (6 Expts)
35	Option 2	PC	CE0418	19CE418	Environmental Engineering	19CE303 / CE0303	3	0	3	CGPA	Theory
36	Option 2	PC	CE0419	19CE419	Water and Wastewater Analysis Laboratory	-	0	2	2	CGPA	Practical (10 Expts)
37		PC	NA	19CE409	Foundation Engineering	19CE403	4	0	4	CGPA	Theory
38		PC	CE0410	19CE410	Water Resources Engineering	-	3	0	3	CGPA	Theory
39		PC	NA	19CE411	Design of Reinforced Concrete Elements	19CE406	3	1	4	CGPA	TIP (6 Expts)
40		PC	CE0412	19CE412	Survey Camp	19CE402 / CE0402	0	2	2	CGPA	Practical (10 Expts)
41		PC	NA	19CE413	Advanced Mechanics of Materials	19CE406	3	0	3	CGPA	Theory
42		PC	CE0414	19CE414	Design of Steel Structures	19CE406 / CE0806	3	0	3	CGPA	Theory
43		PC	CE0416	19CE416	Estimation, Costing and Valuation	-	3	0	3	CGPA	Theory
44		PC	NA	19CE417	Computer Aided Building Drawing	-	0	2	2	CGPA	Practical (10 Expts)
45		PC	CE0420	19CE420	Building Information and Modeling	-	0	3	3	CGPA	Practical (10 Expts)
46		PE	NA	19CE501	Advanced Structural Analysis	-	3	0	3	CGPA	Theory
47		PE	NA	19CE502	Prestressed Concrete Structures	-	3	0	3	CGPA	Theory
48		PE	CE0504	19CE504	Design Studio and Detailing	-	1	2	3	CGPA	Theory (10 Expts) and Practical (10 Expts)

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49		PE	NA	19CE505	Design of Tall Buildings	19CE413	3	0	3	CGPA	Theory
50		PE	CE0506	19CE506	Industrial Structures	19CE413	3	0	3	CGPA	Theory
51		PE	CE0507	19CE507	Irrigation Engineering and Drawing	-	3	0	3	CGPA	Theory
52		PE	CE0508	19CE508	Groundwater Engineering	19CE410 / CE0410	3	0	3	CGPA	Theory
53		PE	NA	19CE509	Coastal Engineering	19CE305	3	0	3	CGPA	Theory
54		PE	CE0510	19CE510	Integrated Water Resources Management	-	3	0	3	CGPA	Theory
55		PE	CE0511	19CE511	Water Resources Systems	19CE410 / CE0410	3	0	3	CGPA	Theory
56		PE	CE0512	19CE512	Geoinformatics Applications	19CE402 / CE0402	3	0	3	CGPA	Theory
57		PE	CE0513	19CE513	Geographical Information System	19CE402 / CE0402	3	0	3	CGPA	Theory
58		PE	NA	19CE514	Advanced Surveying	19CE402	3	0	3	CGPA	Theory
59		PE	CE0515	19CE515	Digital Cadastre	19CE402 / CE0402	3	0	3	CGPA	Theory
60		PE	CE0516	19CE516	Ground Improvement Techniques	-	3	0	3	CGPA	Theory
61		PE	NA	19CE517	Advanced Foundation Engineering	19CE409	3	0	3	CGPA	Theory
62		PE	NA	19CE518	Municipal Solid Waste Management	-	3	0	3	CGPA	Theory
63		PE	NA	19CE519	Hazardous Waste Management	-	3	0	3	CGPA	Theory
64		PE	CE0520	19CE520	Environmental Impact Assessment	19CE410 / CE0410	3	0	3	CGPA	Theory
65		PE	CE0521	19CE521	Air Pollution Engineering	-	3	0	3	CGPA	Theory
66		PE	CE0522	19CE522	Data Analytics in Environmental Engineering	19CE408	3	0	3	CGPA	Theory
67		PE	CE0523	19CE523	Instrumentation for Pollution Monitoring and Management	-	3	0	3	CGPA	Theory
68		PE	CE0524	19CE524	Airport Engineering	-	3	0	3	CGPA	Theory
69		PE	NA	19CE525	Traffic Engineering	-	3	0	3	CGPA	Theory
70		PE	CE0526	19CE526	Port and Harbour Engineering	-	3	0	3	CGPA	Theory
71		PE	CE0528	19CE528	Contract Laws and Regulations	-	3	0	3	CGPA	Theory
72		PE	NA	19CE529	Construction Planning and Scheduling	-	3	0	3	CGPA	Theory
73		PE	NA	19CE530	Construction Equipment and Techniques	-	3	0	3	CGPA	Theory
74		PE	CE0532	19CE532	Material Science and Engineering	19CE304	3	0	3	CGPA	Theory

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75		PE	CS1501	19CS501	Machine Learning	19MA212/ 19MA218	3	0	3	CGPA	Theory
76		PE	CS1526	19CS526	R Programming	19CS301/19 CS303	2	1	3	CGPA	TIP (6 Expts)
77		PE	CS1519	19CS519	Data Science	19CS301/19 CS501	3	0	3	CGPA	Theory
78		PE	CS1529	19CS529	Quantum Computing	19CS301/19 CS303	3	0	3	CGPA	Theory
79		PE(Honours 1)	CE0527	19CE527	Construction Engineering and Occupational Safety	-	3	0	3	CGPA	Theory
80		PE(Honours 1)	CE0531	19CE531	Construction Project Management	-	3	0	3	CGPA	Theory
81		PE(Honours 1)	CE0503	19CE503	Prefabricated Structures	-	3	0	3	CGPA	Theory
82		PE(Honours 1)	CE0533	19CE533	Watershed Conservation and Management	-	3	0	3	CGPA	Theory
83		PE(Honours 1)	CE0534	19CE534	Analysis and Design of Deep Foundations	-	3	0	3	CGPA	Theory
84		PE(Honours 1)	CE0535	19CE535	UAV and Drone Technology for Mapping	-	3	0	3	CGPA	Theory
85		PE(Honours 1)	CE0536	19CE536	Solid and Hazardous Waste Management	-	3	0	3	CGPA	Theory
86		PE(Honours 1)	CE0537	19CE537	Intelligent Transport Systems	-	3	0	3	CGPA	Theory
87		PE(Honours 2)	CE0539	19CE539	Advanced Construction Techniques	-	3	0	3	CGPA	Theory
88		PE(Honours 2)	CE0541	19CE541	Precast Technology	-	3	0	3	CGPA	Theory
89		PE(Honours 2)	CE0542	19CE542	Urban Water Infrastructure	-	3	0	3	CGPA	Theory
90		PE(Honours 2)	CE0543	19CE543	Tunneling Engineering	-	3	0	3	CGPA	Theory
91		PE(Honours 2)	CE0544	19CE544	Spatial Data Infrastructure and Management	-	3	0	3	CGPA	Theory
92		PE(Honours 2)	CE0545	19CE545	Water Quality and Management	-	3	0	3	CGPA	Theory
93		PE(Honours 2)	CE0546	19CE546	Urban Infrastructure and Smart Cities	-	3	0	3	CGPA	Theory
94		PE(Honours 2)	CE0547	19CE547	Construction Equipment and Machinery	-	3	0	3	CGPA	Theory
95		OE	XXXXX X	19XXXXX	Online Courses	-	0	0	0	CGPA	Experiential Learning
96		OE	XXXXX X	19XXXXX	Open Electives	-	0	0	0	CGPA	Theory
97		EEC	CE0701	19CE701	Mini Project	-	0	2	2	CGPA	Project (Int Only)
98		EEC	CE0702	19CE702	Project Work Phase I	-	0	2	2	CGPA	Project (Int Only)
99		EEC	CE0703	19CE703	Project Work Phase II	19CE702 / CE0702	0	6	6	CGPA	Project
100	Any 1	EEC	NA	19EY701	Softskills	-	0	1	1	CGPA	Practical (6 Expts)

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101	Any 1	EEC	SH6708	19EY708	Career Development Skills	NIL	1	0	1	CGPA	Theory (Int Only)
102	Any 1	EEC	NA	19EY702	Creative Skills for Communication	-	0	1	1	CGPA	Practical (6 Expts)
103	Any 1	EEC	SH6709	19EY709	Reasoning Ability	NIL	1	0	1	CGPA	Theory (Int Only)
104	Option 1	EEC	NA	19EY703	System of Numerical and Logical Terminologies	-	0	1	1	CGPA	Practical (6 Expts)
105	Option 1	EEC	NA	19EY704	Advanced Quantitative and Logical Reasoning	-	0	1	1	CGPA	Practical (6 Expts)
106	Option 2	EEC	SH6710	19EY710	Quantitative Ability I	NIL	1	0	1	CGPA	Theory (Int Only)
107	Option 2	EEC	SH6711	19EY711	Quantitative Ability II	SH6710 /19EY710	1	0	1	CGPA	Theory (Int Only)
108	Any 1	EEC	NA	19EY705	Employment Enhancement Skills	-	0	1	1	CGPA	Practical (6 Expts)
109	Any 1	EEC	SH6712	19EY712	Employment Enrichment Skills	19EY702 / 19EY709 / SH6709	1	0	1	CGPA	Theory (Int Only)
110	Any 1	EEC	NA	19EY706	Company Specific Assessments For Employability	-	0	1	1	CGPA	Practical (6 Expts)
111	Any 1	EEC	SH6713	19EY713	Placement Readiness Assessment	19EY704 / 19EY711/SH 6711	1	0	1	CGPA	Theory (Int Only)
112		MC	SH6707	19EY707	Paper Publication	-	0	0	1	NON-CGPA	Experiential Learning (Int Only)
113		MC	NA	19MC801	Professional Ethics	-	0	0	0	NON - CGPA	Theory (Int Only)
114		MC	NA	19MC802	Environmental Science	-	0	0	0	CGPA	Theory (Int Only)
115		MC	NA	19MC803	Constitution of India	-	0	0	0	CGPA	Theory (Int Only)
116		MC	NA	19MC804	Internship/Entrepreneurship/ Consultancy	-	0	0	2	NON-CGPA	Experiential Learning (Int Only)
117		MC	NA	19MC805	Inplant Training	-	0	0	1	Non - CGPA	Experiential Learning (Int Only)
118	Any 1	MC	SH6803	19MC807	National Service Scheme	-	0	0	0	NON-CGPA	Experiential Learning (Int Only)
119	Any 1	MC	SH8807	19MC808	National Sports Organization	-	0	0	0	NON-CGPA	Experiential Learning (Int Only)
120	Any 1	MC	SH8808	19MC809	Youth Red Cross	-	0	0	0	NON-CGPA	Experiential Learning (Int Only)

BATCH: 2021- 2025			BATCH: 2022- 2026 and 2023-2027	
Category	Credits to be Earned (Regular)	Credits to be Earned (Lateral Entry)	Credits to be Earned (Regular)	Credits to be Earned (LE)
Humanities and Science	11	3	13	3
Basic Science	25	6	25	6
Engineering Science	26	12	26	12
Professional Core	57	57	57	57
Professional Electives	15	15	15	15
Open Electives	12	12	12	12
Employability Enhancement Courses	16	16	16	16
Mandatory Courses	3	3	3	3
TOTAL	165	124	167	124