

**CIVIL ENGINEERING DEPARTMENT, SOS, ENGINEERING & TECHNOLOGY
GURU GHASIDAS VISHWAVIDYALAYA (A CENTRAL UNIVERSITY), BILASPUR**

**SCHEME OF B.TECH. III SEMESTER CIVIL ENGINEERING (CBCS-2020-21)
W.E.F. 2021-22 (ODD SEMESTER)**

S. No	Subject Code	Subjects	Period/Week			Scheme of Evaluation				Grand Total	Credits
						Internal Assessment (IA)			ESE		
			Theory	L	T	P	CT-I	CT-II			
1	CE203TBS05	Engineering Mathematics-III	3	1	0	15	15	30	70	100	4
2	CE203TPC01	Strength of Materials	3	1	0	15	15	30	70	100	4
3	CE203TPC02	Fluid Mechanics-I	3	0	0	15	15	30	70	100	3
4	CE203TPC03	Building Materials & Construction	3	0	0	15	15	30	70	100	3
5	CE203TPC04	Surveying & Geomatics	3	0	0	15	15	30	70	100	3
6	CE203THS03	Professional Practice, Law & Ethics	2	0	0	15	15	30	70	100	2
		Practical									
1	CE203PPC01	Survey Lab	0	0	2	-	-	30	20	50	1
2	CE203PPC02	Fluid Mechanics Lab	0	0	2	-	-	30	20	50	1
										Total Credits	21

L - Lecture Hours, T-Tutorial Hours, P - Practical Hours, CT - Class Test, ESE – End Semester Exam;

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**SCHEME OF B.TECH. IV SEMESTER CIVIL ENGINEERING (CBCS-2020-21)
W.E.F. 2021-22 (EVEN SEMESTER)**

S. No	Subject Code	Subjects	period/Week			Scheme of Evaluation				Grand Total	Credits
						Internal Assessment (IA)			ESE		
			Theory	L	T	P	CT-I	CT-II			
1	CE204TPC05	Engineering Economics	3	0	0	15	15	30	70	100	3
2	CE204TPC06	Concrete Technology	3	0	0	15	15	30	70	100	3
3	CE204TPC07	Structural Analysis-I	3	1	0	15	15	30	70	100	4
4	CE204TPC08	Fluid Mechanics-II	3	0	0	15	15	30	70	100	3
5	CE 204THS02	Effective Technical Communication	3	0	0	15	15	30	70	100	3
6	CE204TMC02	Management (Organizational Behaviour)	3	0	0	-	-	-	-	-	0
		Practical									
1	CE204PES06	Computer Aided Civil Engg. Drawing	0	0	2	-	-	30	20	50	1
2	CE204PPC03	Material Testing Lab	0	0	2	-	-	30	20	50	1
3	CE204PHS01	Effective Technical communication lab	0	0	2	-	-	30	20	50	1
										Total Credits	19

L - Lecture Hours, T-Tutorial Hours, P - Practical Hours, CT - Class Test, ESE – End Semester Exam;

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**SCHEME OF B.TECH.V SEMESTER CIVIL ENGINEERING(CBCS-2020-21)
W.E.F. 2022-23 (ODD SEMESTER)**

S. No	Subject Code	Subjects	period/Week			Scheme of Evaluation				Grand Total	Credits
						Internal Assessment (IA)			ESE		
			Theory	L	T	P	CT-I	CT-II			
1	CE205TPC09	Design of Concrete Structures-I	3	1	0	15	15	30	70	100	4
2	CE205TPC10	Structural Analysis - II	3	1	0	15	15	30	70	100	4
3	CE205TPC11	Transportation Engineering	3	0	0	15	15	30	70	100	3
4	CE205TPC12	Soil Mechanics - I	3	0	0	15	15	30	70	100	3
5	CE205TPC13	Environmental Engineering - I	3	0	0	15	15	30	70	100	3
6	CE205TPC14	Estimation & Costing	3	0	0	15	15	30	70	100	3
		Practical									
1	CE205PPC04	Transportation Engineering Lab	0	0	2	-	-	30	20	50	1
2	CE205PPC05	Soil Mechanics Lab	0	0	2	-	-	30	20	50	1
										Total Credits	22

L - Lecture Hours, T-Tutorial Hours, P - Practical Hours, CT - Class Test, ESE – End Semester Exam; * Mandatory Course

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**SCHEME OF B.TECH.VI SEMESTER CIVIL ENGINEERING (CBCS-2020-21)
W.E.F. 2022-23 (EVEN SEMESTER)**

S. No	Subject Code	Subjects	period/Week			Scheme of Evaluation				Grand Total	Credits
						Internal Assessment (IA)			ESE		
			Theory	L	T	P	CT-I	CT-II			
1	CE206TPC15	Design of Steel Structures	3	1	0	15	15	30	70	100	4
2	CE206TPC16	Environmental Engineering - II	3	0	0	15	15	30	70	100	3
3	CE206TPC17	Water Resources Engineering -I	3	0	0	15	15	30	70	100	3
4	CE206TPC18	Soil Mechanics - II	3	0	0	15	15	30	70	100	3
5	CE206TPE1X	Professional Elective -1X	3	0	0	15	15	30	70	100	3
6	CE206TOE01	Open Elective	3	0	0	15	15	30	70	100	3
		Internship/Industrial Training*									
		Practical									
1	CE206PPC06	Environmental Engineering Lab	0	0	2	-	-	30	20	50	1
2	CE206PPC07	Computer Applications in Civil Engg. Lab	0	0	2	-	-	30	20	50	1
										Total Credits	21

L - Lecture Hours, T-Tutorial Hours, P - Practical Hours, CT - Class Test, ESE – End Semester Exam; * Students have to undergo internship/industrial training for a period of 04 weeks during the summer vacation and shall submit a report signed by the concerned organization to the Department in the 7th Semester.

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**SCHEME OF B.TECH.VII SEMESTER CIVIL ENGINEERING (CBCS-2020-21)
W.E.F. 2023-24 (ODD SEMESTER)**

S. No	Subject Code	Subjects	period/Week			Scheme of Evaluation				Grand Total	Credits
						Internal Assessment (IA)			ESE		
			Theory	L	T	P	CT-I	CT-II			
1	CE207TPC19	Pre-stressed Concrete	3	0	0	15	15	30	70	100	3
2	CE207TPC20	Water Resources Engineering-II	3	0	0	15	15	30	70	100	3
3	CE207TPE2X	Professional Elective -2X	3	0	0	15	15	30	70	100	3
4	CE207TPE3X	Professional Elective -3X	3	0	0	15	15	30	70	100	3
5	CE207TPE4X	Professional Elective -4X	3	0	0	15	15	30	70	100	3
6	CE207TOE02	Open Elective	3	0	0	15	15	30	70	100	3
		Practical									
1	CE207PPC08	Seminar*	-	-	2	-	-	50	-	50	1
2	CE207PPC09	Minor project	0	0	6	-	-	60	40	100	3
										Total Credits	22

L - Lecture Hours, T-Tutorial Hours, P - Practical Hours, CT - Class Test, ESE – End Semester Exam; * Seminar on Industrial Training/Internship undergone during summer vacation of 6th Semester

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**SCHEME OF B.TECH.VIII SEMESTER CIVIL ENGINEERING (CBCS-2020-21)
W.E.F. 2023-24(EVEN SEMESTER)**

S. No	Subject Code	Subjects	period/Week			Scheme of Evaluation				Grand Total	Credits
						Internal Assessment (IA)			ESE		
			Theory	L	T	P	CT-I	CT-II			
1	CE208TPC21	Earthquake Resistant Design of Structures	3	0	0	15	15	30	70	100	3
2	CE208TPE5X	Professional Elective -5X	3	0	0	15	15	30	70	100	3
3	CE208TPE6X	Professional Elective -6X	3	0	0	15	15	30	70	100	3
4	CE208TOE03	Open Elective	3	0	0	15	15	30	70	100	3
		Practical									
1	CE208PPC10	Major Project	0	0	15	-	-	120	80	200	8
2	CE208PPC11	Structural Detailing Lab	0	0	2	-	-	30	20	50	1
										Total Credits	21

L - Lecture Hours, T-Tutorial Hours, P - Practical Hours, CT - Class Test, ESE – End Semester Exam

List of Professional (Core) Electives

Sl. No.	Subject Code	Name of Subject	Credits	Semester
x	CE206TPE1X	Professional Elective-1 (PE Group-1)	3	VI
A	CE206TPE1A	Structural Analysis by Matrix Methods		
B	CE206TPE1B	Advanced Surveying		
C	CE206TPE1C	Advanced Concrete Design		
D	CE206TPE1D	Construction Engineering Materials		
E	CE206TPE1E	Basics of Computational Hydraulics		
Sl. No.	Subject Code	Name of Subject	Credits	Semester
x	CE207TPE2X	Professional Elective-2 (PE Group-2)	3	VII
A	CE207TPE2A	Environmental Geo-technology		
B	CE207TPE2B	Air and Noise Pollution and Control		
C	CE207TPE2C	Solid and Hazardous Waste Management		
D	CE207TPE2D	Urban Hydrology and Hydraulics		
E	CE207TPE2E	Environmental Impact Assessment and Life Cycle Analysis		
Sl. No.	Subject Code	Name of Subject	Credits	Semester
x	CE207TPE3X	Professional Elective-3 (PE Group-3)	3	VII
A	CE207TPE3A	Engineering Hydrology		
B	CE207TPE3B	Structural Dynamics		
C	CE207TPE3C	Foundation Engineering		
D	CE207TPE3D	Rock Mechanics		
E	CE207TPE3E	Water Resources Planning & Management		

Sl. No.	Subject Code	Name of Subject	Credits	Semester
x	CE207TPE4X	Professional Elective-4 (PE Group-4)	3	VII
A	CE207TPE4A	Industrial Structures		
B	CE207TPE4B	Airport Planning and Design		
C	CE207TPE4C	Railway Engineering		
D	CE207TPE4D	Contracts Management		
E	CE207TPE4E	Construction Projects Planning & Systems		
Sl. No.	Subject Code	Name of Subject	Credits	Semester
x	CE208TPE5X	Professional Elective-5 (PE Group-5)	3	VIII
A	CE208TPE5A	Offshore Engineering		
B	CE208TPE5B	Surface Hydrology		
C	CE208TPE5C	Bridge Engineering		
D	CE208TPE5D	Traffic Engineering		
E	CE208TPE5E	Construction Equipment & Automation		
Sl. No.	Subject Code	Name of Subject	Credits	Semester
x	CE208TPE06X	Professional Elective-6 (PE Group-6)	3	VIII
A	CE208TPE6A	Low Cost Housing Techniques		
B	CE208TPE6B	Water and Air Quality Modelling		
C	CE208TPE6C	Repair and Rehabilitation of Structures		
D	CE208TPE6D	Finite Element Analysis		
E	CE208TPE6E	Design of Hydraulic Structures		

List of Open Electives

Sl. No.	Subject Code	Name of Subject	Credits	Semester
1	CE206TOE01	Metro Systems and Engineering	3	VI
2	CH206TOE01	Industrial utilities and safety	3	VI
3	CS206TOE01	Opps with C++	3	VI
4	EC206TOE01	Introduction to Electronics and Circuits	3	VI
5	IP206TOE01	Operation Research	3	VI
6	IT206TOE01	Computer Graphics	3	VI
7	ME206TOE01	Automobile Engineering	3	VI

Sl. No.	Subject Code	Name of Subject	Credits	Semester
2	CE207TOE02	Green Building and Sustainable Materials	3	VII

Sl. No.	Subject Code	Name of Subject	Credits	Semester
3	CE208TOE03	Infrastructure Planning and Management	3	VIII

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