Government College of Engineering, Karad

SCHEME OF INSTRUCTION & SYLLABI

Programme: Civil Engineering

Scheme of Instructions : Final Year B. Tech. in Civil Engineering

Semester – VII**(w.e.f. AY.2024-25)**

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Course Credits	CT-1	CT-2	TA/CA	ESE	TOTAL
									\<EXAM SCHEME\>				
1	OEC	CE27*1	Open Elective IV	3	-	-	3	3	15	15	10	60	100
2	PEC	CE27*2	Elective- III	3	0	0	3	3	15	15	10	60	100
3	PEC	CE27*3	Elective IV	3	0	0	3	3	15	15	10	60	100
4	PCC	CE2704	Design of RCC and pre-stressed Concrete structures	3	0	0	3	3	15	15	10	60	100
5	PCC	CE2705	Hydraulic Structures	3	-	-	3	3	15	15	10	60	100
6	OEC	CE27*6	Open Elective IV Lab	-	-	2	2	1	-	-	25	-	25
7	PEC	CE27*7	Elective – III Lab	-	-	2	2	1	-	-	25	-	25
8	PCC	CE2708	Structural design and drawing II	0	0	4	4	2	0	0	25	25	50
9	P/S/IT	CE2709	Seminar	-	1	-	1	1	-	-	25	25	50
10	P/S/IT	CE2710	Industrial Training	-	1	-	1	1	-	-	50	-	50
11	HSMC	CE2701	Construction Management	3	0	0	3	3	15	15	10	60	100
12	Audit	CE27*4	Audit Course- Lab I	-	-	4	4	Audit	-	-	-	-	-
			Total	18	02	12	32	24	90	90	210	410	800

L- Lecture　　　　　　　T-Tutorial　　　　　　　　　P-Practical

CT1- ClassTest1　　　　　TA/CA- Teacher Assessment/Continuous Assessment

CT2- ClassTest2　　　　　ESE- End Semester Examination (For Laboratory End Semester performance)

Course Category	HSMC (Hum., Soc. Sc, Mgmt.)	BSC (Basic Sc.)	ESC (Engg. Sc.)	PCC (Programme Core courses)	PEC (Programme Elective courses)	OEC (Open Elective courses from other discipline)	MCC (Mandatory Courses)	Project / Seminar / Industrial Training
Credits	03	--	--	08	07	04	--	02
Cumulative Sum	11	21	27	52	13	13	Yes	04

PROGRESSIVE TOTAL CREDITS : 118+24 = 142

Programme: Civil Engineering

Scheme of Instructions : Final Year B. Tech. in Civil Engineering(ACADEMIC MODE)

Semester – VIII(w.e.f. AY.2024-25)

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Course Credits	EXAM SCHEME				
									CT-1	CT-2	TA/CA	ESE	TOTAL
1	OEC	CE28*1	Open Elective V	3	-	-	3	3	15	15	10	60	100
2	PEC	CE28*2	Elective – V	3	-	-	3	3	15	15	10	60	100
3	OEC	CE28*3	Open Elective V Lab	-	-	2	2	1	-	-	50	-	50
4	PCC	CE2804	Software Lab	-	-	2	2	1	-	-	50	50	100
5	P/S/CE	CE2805	Project	-	-	20	20	10	-	-	200	200	400
6	Audit	CE28*9	Audit Course- Lab II	-	-	4	4	Audit	-	-	-	-	-
			Total	06	00	28	34	18	30	30	320	370	750

L- Lecture   T-Tutorial   P-Practical

CT1- ClassTest1   TA/CA- Teacher Assessment/Continuous Assessment

CT2- ClassTest2   ESE- End Semester Examination (For Laboratory End Semester performance)

Course Category	HSMC (Hum., Soc. Sc, Mgmt.)	BSC (Basic Sc.)	ESC (Engg. Sc.)	PCC (Programme Core courses)	PEC (Programme Elective courses)	OEC (Open Elective courses from other discipline)	MCC (Mandatory Courses)	Project / Seminar / Industrial Training
Credits	--	--	--	01	03	04	--	10
Cumulative Sum	11	21	27	53	16	17	Yes	14

PROGRESSIVE TOTAL CREDITS : 142+18= 160

Government College of Engineering, Karad

SCHEME OF INSTRUCTION & SYLLABI

Programme: Civil Engineering

Scheme of Instructions : Final Year B. Tech. in Civil Engineering (==INDUSTRY MODE==)

Semester – VIII(w.e.f. AY. 2024-254

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Course Credits	CT-1	CT-2	TA/CA	ESE	TOTAL
									EXAM SCHEME				
1	MOOC	CE2806	(MOOC – 1)	-	-	-	-	4	-	-	-	-	-
2	MOOC	CE2807	(MOOC – 2)	-	-	-	-	4	-	-	-	-	-
3	P/S/CE	CE2808	Industry Project	-	-	24	24	10	-	-	200	200	400
			Total	00	00	24	24	18	00	00	200	200	400

Note: Students are expected to get MOOC certificate from reputed authorities such as NPTEL/ SWAYAM/ Coursers/ EdX/ Edureka in the field of their Project. The title of the MOOC course should be approved by Project guide

L- Lecture   T-Tutorial   P-Practical

CT1- ClassTest1   TA/CA- Teacher Assessment/Continuous Assessment

CT2- ClassTest2   ESE- End Semester Examination (For Laboratory End Semester performance)

Course Category	HSMC (Hum., Soc. Sc, Mgmt.)	BSC (Basic Sc.)	ESC (Engg. Sc.)	PCC (Programme Core courses)	PEC (Programme Elective courses)	OEC (Open Elective courses from other discipline)	MCC (Mandatory Courses)	Project / Seminar / Industrial Training	MOOC
Credits	--	--	--	--	--	--	--	10	08
Cumulative Sum	11	21	27	52	13	13	Yes	14	08

PROGRESSIVE TOTAL CREDITS : 142+18= 160

Government College of Engineering, Karad

SCHEME OF INSTRUCTION & SYLLABI

Programme: Civil Engineering

List of Elective subject:

Elective-I	Elective-II	Elective-III	Elective- III Lab	Elective-IV	Elective-V
CE2516: Town planning and Transportation Engineering	**CE2613:** Advanced Geotechnical Engineering	**CE2712:** Remote Sensing and GIS	**CE2717:** Remote Sensing and GIS Lab	**CE2713:** Earthquake resistant design of structures	**CE2812:** Advanced Engineering Geology
CE2526: Air Pollution Control	**CE2623:** Building Services	**CE2722:** Water Power Engineering	**CE2727:** Water Power Engineering Lab	**CE2723:** Tunnel Engineering	**CE2822:** Professional Practices in Civil Engineering
CE2536: Advanced Surveying	**CE2633:** Hydraulics in Environmental Engineering	**CE2732:** Ground improvement Techniques	**CE2737:** Ground improvement Techniques Lab	**CE2733:** Green Building and Sustainability	**CE2832:** Traffic Engineering
CE2546: Appropriate Technology	**CE2643:** Advanced Construction Practices	**CE2742:** Industrial Waste Treatment	**CE2747:** Industrial Waste Treatment Lab	**CE2743:** Municipal Solid Waste Management	**CE2842:** Bridge Engineering
CE2556: Repairs and Rehabilitation of Structures	**CE2653:** Advanced Structural Analysis	**CE2752:** Analysis of Indeterminate Structure	**CE2757:**Analysis of Indeterminate Structure Lab	**CE2753:** Coastal Engineering	**CE2852:** Advanced Design of Concrete Structures

List of Open Elective subject:

Open Elective-I	Open Elective-I Lab	Open Elective-II	Open Elective-III	Open Elective-IV	Open Elective-IV Lab	Open Elective-V	Open Elective-V Lab
CE2401:Object Oriented Programming	CE2406:Object Oriented Programming Lab	CE2511: Instrumentation for Construction Engineering	CE2612: Numerical Methods	CE2711: Advanced Computing for Civil Engineering	CE2716 : Advanced Computing for Civil Engineering Lab	CE2811 : MATLAB applications in Civil Engineering	CE2813 : MATLAB applications in Civil Engineering Lab
		CE2521:Soft Computing tools	CE2622: Safety Engineering	CE2721: Data Science for Civil Engineering	CE2726 : Data Science for Civil Engineering Lab		
		CE2531: Environmental Impact Assessment	CE2632: Project Management				

	Audit Course Lab I	Audit Course Lab II
AIMLDS	**CE2714**: Foundations of Data Science and Machine Learning Lab	**CE 2819:** Advanced AI Techniques and Applications Lab
AIOT	**CE 2724:** AIoT Development Lab	**CE 2829:** Advance AI and IoT Integration Lab
ARVR	**CE 2734:** Immersive Game Development Lab	**CE 2839:** Advanced ARVR Techniques and Applications Lab
SAP ERP	**CE 2744:** ABAP Programming for SAP HANA Lab	**CE 2849:** ABAP programming in Eclipse LAB
Electric vehicle Mechanical Perspective	**CE2754:** EV design and 3D Modeling lab	**CE 2859: :** EV design analysis and Simulation Lab
Electric vehicle Electrical Perspective	**CE 2764**: : Foundation of Electrical Vehicle Lab	**CE 2869:** Advanced Electrical Vehicle Lab
Image Processing	**CE 2774:** Fundamentals of Image Processing Lab	**CE 2879:** Advanced Image Processing Lab