



NEW HORIZON
COLLEGE OF ENGINEERING
New Horizon Knowledge Park, Ring Road, Marathalli
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

DEPARTMENT OF CIVIL ENGINEERING

Academic Year 2020-21

List of Courses and the Proposed Scheme

for

Bachelor of Engineering (B.E)

(First to Eighth Semester)

NEW HORIZON COLEGE OF ENGINEERING
DEPARTMENT OF CIVIL ENGINEERING

Scheme and Matrix from I – VIII semester (175 Credits)
Academic year 2020-2021

Scheme of I Semester B.E Program

FIRST SEMESTER- CHEMISTRY CYCLE											
Sl. No	Course Code	Course	BoS	Credit Distribution			Overall Credits	Contact Hours	Marks		
				L	T	P			CIE	SEE	Total
1	19MAT11	Applied Mathematics-I	BS	2	1	0	3	4	50	50	100
2	19CHE12	Engineering Chemistry	BS	3	0	0	3	3	50	50	100
3	19CSE13	Introduction to Programming with C	CSE	3	0	0	3	3	50	50	100
4	19MEE14	Computer Aided Engineering Drawing	ME	1	0	2	3	5	50	50	100
5	19ECE15	Basic Electronics	ECE	3	0	0	3	3	50	50	100
6	19CHL17	Engineering Chemistry Lab	BS	0	0	2	2	4	25	25	50
7	19CSL18	Programming with C Lab	CSE	0	0	2	2	4	25	25	50
8	19HSS171	Essential English	HSS	Mandatory Course			0	2	25	25	50
9	19HSS172	Constitution of India and Professional Ethics	HSS	Mandatory Course			0	2	25	25	50
Total							19	30	350	350	700

Scheme of II Semester B.E Program

SECOND SEMESTER- PHYSICS CYCLE											
Sl. No	Course Code	Course	BoS	Credit Distribution			Overall Credits	Contact Hours	Marks		
				L	T	P			SEE	CIE	Total
1	19MAT21	Applied Mathematics -II	BS	2	1	0	3	4	50	50	100
2	19PHY22	Engineering Physics	BS	3	0	0	3	3	50	50	100
3	19MEE23	Elements of Mechanical Engineering	ME	3	0	0	3	3	50	50	100
4	19CIV24	Elements of Civil Engineering	CV	3	0	0	3	3	50	50	100
5	19EEE25	Basic Electrical Engineering	EE	3	0	0	3	3	50	50	100
6	19PHL26	Engineering Physics Lab	BS	0	0	2	2	4	25	25	50
6	19EEL27	Basic Electrical Engineering Lab	EE	0	0	2	2	4	25	25	50
7	19HSS271	Professional Communication	HSS	2	0	0	2	2	25	25	50
Total							21	26	325	325	650

Scheme of III Semester B.E Program

Sl. No	Course Code	Course	BOS	Credit Distribution			Overall Credits	Contact Hours	Marks		
				L	T	P			CIE	SEE	Total
1	19CIV31	Applied Mathematics-III	MAT	2	1	0	3	4	50	50	100
2	19HSS321	Economics for Engineers	HSS	2	0	0	2	2	25	25	50
3	20HSS324/ 20HSS325	Aadalitha Kannada/ Vyavaharika Kannada	HSS	1	0	0	1	2	25	25	50
4	19CIV33	Building Materials & Construction	CIV	3	0	0	3	3	50	50	100
5	19CIV34	Strength of Materials	CIV	2	1	0	3	4	50	50	100
6	19CIV35	Plane Surveying	CIV	3	0	0	3	3	50	50	100
7	19CIV36	Mechanics of Fluids	CIV	2	1	0	3	4	50	50	100
8	19CIV37	Material testing Lab	CIV	0	0	2	2	4	25	25	50
9	19CIV38	Plane Surveying Lab	CIV	0	0	1.5	1.5	3	25	25	50
10	19CIV39	Mechanics of Fluids Lab	CIV	0	0	1.5	1.5	3	25	25	50
Total							23	32	375	375	750

Scheme of IV Semester B.E Program

Sl. No	Course Code	Course	BOS	Credit Distribution			Overall Credits	Contact Hours	Marks		
				L	T	P			CIE	SEE	Total
1	19CIV41	Applied Mathematics-IV	MAT	2	1	0	3	4	50	50	100
2	19HSS422	Life Skills for Engineers	HSS	3	0	0	3	3	50	50	100
3	19HSS423	Environmental Science and Awareness	HSS	Mandatory Course			0	2	25	25	50
4	19CIV43	Concrete technology	CIV	3	0	0	3	3	50	50	100
5	19CIV44	Analysis of Determinate Structures	CIV	2	1	0	3	4	50	50	100
6	19CIV45	Higher Surveying	CIV	3	0	0	3	3	50	50	100
7	19CIV46	Applied Hydraulics and Machinery	CIV	2	1	0	3	4	50	50	100
8	19CIV47	Higher Surveying Lab	CIV	0	0	1.5	1.5	3	25	25	50
9	19CIV48	Applied Hydraulics and Machinery Lab	CIV	0	0	1.5	1.5	3	25	25	50
10	19CIV49	Mini Project - I	CIV	0	0	2	2	4	25	25	50
Total							23	33	375	375	750

Scheme of V Semester B.E Program

Sl. No	Course Code	Course	BOS	Credit Distribution			Overall Credits	Contact Hours	Marks		
				L	T	P			CIE	SEE	Total
1	20CIV51	Hydrology & Irrigation Engineering	CIV	3	0	0	3	3	50	50	100
2	20CIV52	Design of RCC Structural Elements	CIV	2	1	0	3	4	50	50	100
3	20CIV53	Analysis of Indeterminate Structures	CIV	2	1	0	3	4	50	50	100
4	20CIV54	Basics of Geotechnical Engineering	CIV	2	1	0	3	4	50	50	100
5	20CIV55	Highway Engineering	CIV	3	0	0	3	3	50	50	100
6	20CIV56*	Professional Elective-I	CIV	3	0	0	3	3	50	50	100
7	20CIV57	Concrete Technology Lab	CIV	0	0	1.5	1.5	3	25	25	50
8	20CIV58	Basics of Geotechnical Engineering Lab	CIV	0	0	1.5	1.5	3	25	25	50
9	20CIV59	Mini Project - II	CIV	0	0	2	2	4	25	25	50
Total							23	31	375	375	750

Professional Elective- I	
Course Code	Course
20CIV561	Advance Surveying
20CIV562	Urban Transport Planning
20CIV563	Open Channel Hydraulics
20CIV564	Advance Concrete Technology

Scheme of VI Semester B.E Program

Sl. No	Course Code	Course	BOS	Credit Distribution			Overall Credits	Contact Hours	Marks		
				L	T	P			CIE	SEE	Total
1	20CIV61	Environmental Engineering	CIV	3	0	0	3	3	50	50	100
2	20CIV62	Design and Detailing of RC Structural Element	CIV	2	1	0	3	4	50	50	100
3	20CIV63	Applied Geotechnical Engineering	CIV	2	1	0	3	4	50	50	100
4	20CIV64*	Professional Elective-II	CIV	3	0	0	3	3	50	50	100
5	20CIV65*	Professional Elective-III	CIV	3	0	0	3	3	50	50	100
6	NHOP**	Open Elective-I		3	0	0	3	3	50	50	100
7	20CIV66	Environmental Engineering-Lab	CIV	0	0	1.5	1.5	3	25	25	50
8	20CIV67	Mini project - III	CIV	0	0	1.5	1.5	3	25	25	50
9	20CIV68	Mini project - IV	CIV	0	0	2	2	4	25	25	50
Total							23	31	375	375	750

Professional Elective - II		Open Elective - I	
Course Code	Course	Course Code	Course
20CIV641	Traffic Engineering	NHOP01	Big Data Analytics using HP Vertica-1
20CIV642	Alternative Building Materials & Technology	NHOP02	VM Ware Virtualization Essentials-1
20CIV643	Ground Improvement Techniques	NHOP04	Big Data Analytics using HP Vertica-2
20CIV644	Mechanization in Construction	NHOP05	VM Ware Virtualization Essentials-2
	Professional Elective - III	NHOP07	SAP
20CIV651	Structural Dynamics	NHOP08	Schneider-Industrial Automation
20CIV652	Pre fabricated structures	NHOP09	CISCO-Routing and Switching-1
20CIV653	Design of Pre stressed Concrete Structures	NHOP10	Data Analytics
20CIV654	Pavement Materials & Construction	NHOP11	Machine learning
		NHOP12	CISCO-Routing and switching - 2
		NHOP13	IIOT – Embedded System
		NHOP14	Block Chain
		NHOP15	Product Life Cycle Management
		NHOP16	CISCO-Routing and switching - 3

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Scheme and Matrix for VII&VIII semester (200 Credits)

Academic year 2020-2021

VII SEMESTER

Sl. No	Course Code	Course	Credit Distribution				Overall Credits	Contact Hours weekly Theory	Contact Hours weekly (Lab)	Marks		
			L	P	T	S				CIE	SEE	Total
1	CIV71	Environmental Engineering-II	2	0	0	0	2	2		50	50	100
2	CIV72	Design and drawing of Steel Structural Elements	3	2	0	0	5	3	4	75	75	150
3	CIV73	Estimation & Valuation	3	0	0	0	3	3		50	50	100
4	CIV74*	Professional Elective-IV	3	0	0	0	3	3		50	50	100
5	CIV75*	Professional Elective-V	3	0	0	1	4	4		50	50	100
6	CIV76	Highway Materials Lab	0	2	0	0	2		4	25	25	50
7	CIV77	Project phase-I	0	3	0	0	3			50	50	100
8	NHOPXX	Open Elective-II	3	0	0	1	4	4		50	50	100
Total							26	19	08	400	400	800

Elective-V		Elective-VI	
Course Code	Course	Course Code	Course
CIV741	Matrix Method of Structural Analysis	CIV751	Industrial waste water treatment
CIV742	Design of Masonry Structures	CIV752	Numerical Method of Civil Engineering
CIV743	Solid Waste Management	CIV753	Earth and Earth Retaining Structures
CIV744	Design & Drawing of Irrigation structures	CIV754	Transportation systems
CIV745	Highway Geometric Design	CIV755	Advanced Pre-stressed Concrete Structures

VIII SEMESTER

Sl. No	Course Code	Course	Credit Distribution				Over all Credits	Contact Hours weekly Theory	Contact Hours weekly (Lab)	Marks		
			L	P	T	S				CIE	SEE	Total
1	CIV 81	Pavement design	3	0	0	0	3	03		50	50	100
2	CIV82*	Professional elective VI	3	0	0	1	4	04		50	50	100
2	19CIV83	Project Work phase-II	0	7	0	0	7			50	50	100
3	19CIV84	Internship	0	4	0	0	4			50	50	100
Total							18	07	00	200	200	400

Professional Elective-VI	
Course Code	Course
CIV821	Rural water Supply & Sanitation
CIV822	Advanced R.C Structures
CIV823	Ground Water Hydrology
CIV824	Air pollution