

MALNAD COLLEGE OF ENGINEERING, HASSAN

(An Autonomous Institution Affiliated to VTU, Belagavi)

Scheme for all Semesters of B.E. Civil Engineering Course

ACADEMIC YEAR 2021 - 2022

Scheme for all Semesters for 2021-22 admitted Batch

I / II SEMESTER B.E. CIVIL ENGINEERING

Course Code	Course Title	Lecture (L)	Tutorial (T)	Practical (P)	Credits (C)	Total Hours
21CV105/205	Engineering Mechanics	3	0	0	3	3
	Total Credits					03

III SEMESTER B.E. CIVIL ENGINEERING

Course Code	Course Category	Course Title	L-T-P	Credits	Total no of contact hours
20MA301	BS-7	Linear Algebra & Integral Transforms	3-1-0	4	5
20CV302	PC-1	Strength of Materials	3-1-0	4	5
20CV303	PC-2	Basic Surveying	3-0-0	3	3
20CV304	PC-3	Building Materials & Technology	3-0-0	3	3
20CV305	PC-4	Fluid Mechanics	3-1-0	4	5
20CV306	PC-5	Construction Materials Testing Laboratory	0-0-2	1	2
20CV307	PC-6	Survey Practice: Basic Techniques	0-0-2	1	2
20LSK	HSM-2	Language Skills (Mandate Audit course)	0-1-0	-	2
		Total Credits		20	27

***Only for Lateral Entry Students**

20BCM301	BS	Bridge course mathematics – I (Mandatory Audit course)	3-0-0	-	3
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IV SEMESTER B.E. CIVIL ENGINEERING

Course Code	Course Category	Course Title	L-T-P	Credits	Total no of contact hours
20MA401	BS-8	Statistics and Complex Analysis	3-1-0	4	5
20CV402	PC-7	Basic Structural Analysis	3-1-0	4	5
20CV403	PC-8	Advanced Surveying	3-0-0	3	3
20CV404	PC-9	Concrete Technology	3-0-0	3	3
20CV405	PC-10	Hydraulics and Hydraulic Machinery	3-0-0	3	3
20CV406	PC-11	Water Supply Engineering	3-0-0	3	2
20CV407	PC-12	Hydraulics and Hydraulics Machinery Laboratory	0-0-2	1	2
20CV408	PC-13	Survey Practice: Advanced Techniques	0-0-2	1	2
20BCM 401	BS	Bridge Course Mathematics-2 (Audit course for Diploma entry students)	3-0-0	-	3
20KAN/ 20KNV	HSM-3	Aadalita Kannada (Kannada for Administration) / Vyavaharika Kannada (Kannada for Conversation)	0-1-0	1	2
20SSK	HSM-4	Social Skills (Mandate Audit course)	0-1-0	-	2
Total Credits				23	32

***Only for Lateral Entry Students**

20BCM401	BS	Bridge course mathematics – II (Mandatory Audit course)	3-0-0	-	3
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V SEMESTER B.E. CIVIL ENGINEERING

Course Code	Course Category	Course Title	L-T-P	Credits	Total no of contact hours
19CV501	PC-14	Advanced Structural Analysis	3-1-0	4	5
19CV502	PC-15	Geotechnical Engineering	3-0-0	3	3
19CV503	PC-16	Wastewater Engineering	3-0-0	3	3
19CV504	PC-17	Design of RC Structures	3-1-0	4	5
19CV505	PC-18	Hydrology & Water Resources Engineering	3-0-0	3	3
19CV506	PC-19	Highway Engineering	3-0-0	3	3
19CV507	PC-20	Building Planning and Drafting	0-0-2	1	2
19CV508	PC-21	Geotechnical Engineering Laboratory	0-0-2	1	2
19CV509	PC-22	Concrete and Highway Materials Testing Lab	0-0-2	1	2
19AAD	HSM-5	Analytical Ability Development	0-1-0	1	2
19EVS	HSM -6	Environmental Studies (Mandate Audit course)	2-0-0	-	2
		Total Credits		24	32

VI SEMESTER B.E. CIVIL ENGINEERING

Course Code	Course Category	Course Title	L-T-P	Credits	Total of contact hours
19CV601	PC-23	Applied Geotechnical Engineering	3-1-0	4	5
19CV602	PC-24	Design of Steel Structural Elements	3-1-0	4	5
19CV603	PC-25	Irrigation Engineering & Hydraulics Structures	3-0-0	3	3
19CV65X	PE-1	Elective Group -I	3-0-0	3	3
19CV66X	PE-2	Elective Group -II	3-0-0	3	3
19OECV6X	OE-1	Open Elective -I	3-0-0	3	3
19CV604	PC-26	CAD Laboratory	0-0-2	1	2
19CV608	PC-27	*Advanced Survey Training / Camp	0-0-2	1	2
19CV609	PROJ-1	Mini Project-1	0-0-4	2	2
19SW01	PC-28	SWAYAM-1 (Audit Course)	0-0-0	0	-
19ARD	HSM-7	Aptitude Reasoning Development (Mandate Audit)	0-1-0	0	3
19CIP	HSM-8	Constitution of India and Professional Ethics (Mandate Audit course)	1-0-0	-	1
Total Credits				24	32

VI Semester - ELECTIVE - I

Sl. No	Course Code	Course Title	L-T-P	Credits
1	19CV651	Alternative Building Materials & Technologies	3-0-0	3
2	19CV652	Matrix Method of Structural Analysis	3-0-0	3
3	19CV653	Ground Improvement Techniques	3-0-0	3
4	19CV654	Industrial Wastewater Treatment	3-0-0	3
5	19CV655	Traffic Engineering	3-0-0	3

VI Semester - ELECTIVE - II

Sl. No	Course Code	Course Title	L-T-P	Credits
1	19CV661	Theory of Elasticity	3-0-0	3
2	19CV662	Design of Masonry Structures	3-0-0	3
3	19CV663	Modern Construction Methods & Mechanization	3-0-0	3
4	19CV664	Urban Transport Planning	3-0-0	3
5	19CV665	Groundwater Hydraulics	3-0-0	3

VI Semester - OPEN ELECTIVE

Sl. No	Course Code	Course Title	L-T-P	Credits
1	19OECV61	Remote Sensing and GIS	3-0-0	3
2	19OECV62	Engineering Optimization	3-0-0	3
3	19OECV63	Composite and Smart Materials	3-0-0	3
4	19OECV64	Urban Design and Regeneration	3-0-0	3

VII SEMESTER B.E. CIVIL ENGINEERING

Course Code	Course Category	Course Title	L-T-P	Credits	Total of contact hours
18CV701	PC-30	Design and Detailing of Steel & RC Structures**	2-0-2	3	4
18CV702	PC-31	Design of Bridges and Flyovers	3-0-0	3	3
18CV703	PC-32	Specifications and Quantity Surveying	3-0-0	3	3
18CV704	PC-33	Prestressed Concrete Structures	3-1-0	4	5
18CV75X	PE-3	Elective Group- III	3-0-0	3	3
18CV76X	PE-4	Elective Group-IV	3-0-0	3	3
18OECV7X	OE-2	Open Elective-2	3-0-0	3	3
18CV707	PC-34	Design of Precast and Composite Structures	1-0-0	1	1
18CV708	PC-35	Environmental Engineering Laboratory	0-0-2	1	2
18CV709	PROJ-2	Mini Project-2	0-0-4	2	2
18SWCV78	PC-36	SWAYAM-2 (Audit Course)	0-0-0	0	-
Total Credits				26	28

VII SEMESTER- ELECTIVE – III

S. No	Course Code	Course Title	L-T-P	Credits
1	18CV751	Railway, Harbor & Airport Engineering	3-0-0	3
2	18CV752	Structural Dynamics	3-0-0	3
3	18CV753	Advanced Foundation Design	3-0-0	3
4	18CV754	Advanced Numerical Methods	3-0-0	3
5	18CV755	Water & Air Quality Modeling	3-0-0	3

VII SEMESTER- ELECTIVE – IV

S. No	Course Code	Course Title	L-T-P	Credits
1	18CV761	Advanced Design of RC Structures	3-0-0	3
2	18CV762	Pavement Analysis and Design	3-0-0	3
3	18CV763	Composite and Smart Materials	3-0-0	3
4	18CV764	Remote Sensing and GIS	3-0-0	3
5	18CV765	Design and Drawing of Irrigation Structures **	3-0-0	3

VII SEMESTER- OPEN ELECTIVE – II

S. No	Course Code	Course Title	L-T-P	Credits
1	18OECV71	Urban Design and Regeneration	3-0-0	3
2	18OECV72	Mechanics of Deformable Bodies	3-0-0	3
3	18OECV73	Hazardous Waste Management	3-0-0	3

VIII SEMESTER B.E. CIVIL ENGINEERING

Course Code	Course Category	Course Title	L-T-P	Credits
18CV801	SR	Seminar	0-0-2	1
18CV802	PROJ-3	Project Work	0-0-18	9
18CV803	IN	Internship (Two weeks)	0-0-2	1
18CV804	HSM-8	Construction Planning and Management	3-0-0	3
18CV806	PC-37	Building Information Modeling	0-0-2	1
18CV85X	PE-V	Elective V	3-0-0	3
Total Credits				18

VIII SEMESTER- ELECTIVE – V

S. No	Course Code	Course Title	L-T-P	Credits
1	18CV851	Finite Element Analysis	3-0-0	3
2	18CV852	Air Pollution & Solid Waste Management	3-0-0	3
3	18CV853	Water Resources Engineering	3-0-0	3
4	18CV854	Urban and Rural Planning	3-0-0	3
5	18CV855	Earthquake Resistant Design of Structures	3-0-0	3
6	18CV856	Reinforced Earth Structures	3-0-0	3