

DEPARTMENT OF CIVIL ENGINEERING

M. Tech. (Hydraulic Engineering)

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1st YEAR					Semester- I (Autumn)									
1.	CEN-531	Advanced Hydrology	PCC	4	3	1	-	3	-	25	-	25	50	-
2.	CEN-532	Advanced Fluid Mechanics	PCC	4	3	1	2/2	3	-	20	20	20	40	-
3.	CEN-533	Free Surface Flows	PCC	4	3	1	-	3	-	25	-	25	50	-
4.	CEN-534	Modeling, Simulation and Optimization	PCC	4	3	1	-	3	-	25	-	25	50	-
5.		Programme Elective – I	PEC	4	-	-	-	-	-	-	-	-	-	-
		Total		20										
					Semester-II (Spring)									
1.	CEN-535	Ground Water Engineering	PCC	4	3	-	2	3	-	15	25	20	40	-
2.	CEN-700	Seminar	SEM	2	0	0	2	-	-	-	-	-	100	-
3.		Programme Elective – II	PEC	4	-	-	-	-	-	-	-	-	-	-
4.		Programme Elective – III	PEC	4	-	-	-	-	-	-	-	-	-	-
5.		Programme Elective – IV	PEC	4	-	-	-	-	-	-	-	-	-	-
		Total		18										
2nd YEAR					Semester- I (Autumn)									
1.	CEN-701A	Dissertation Stage–I (to be continued next semester)	DIS	12	-	-	-	-	-	-	-	-	100	-
		Total		12										
					Semester-II (Spring)									
1.	CEN-701B	Dissertation Stage–II (contd. From III semester)	DIS	18	-	-	-	-	-	-	-	-	100	-
		Total		18										
		Total Credits		68										

Note: Students can take 1 or 2 audit courses as advised by the supervisor, if required.

Program Elective Courses (Hydraulic Engineering)

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1.	CEN-631	Fluvial Hydraulics	PEC	4	3	1	-	3	-	25	-	25	50	-
2.	CEN-632	Hydraulic Structures	PEC	4	3	1	-	3	-	25	-	25	50	-
3.	CEN-633	Systems Engineering	PEC	4	3	1	-	3	-	25	-	25	50	-
4.	CEN-634	Water Resources Systems Planning	PEC	4	3	1	-	3	-	25	-	25	50	-
5.	CEN-635	Irrigation and Drainage	PEC	4	3	1	-	3	-	25	-	25	50	-
6.	CEN-636	Hydro Power Engineering	PEC	4	3	1	-	3	-	25	-	25	50	-
7.	CEN-637	Computational Methods in Fluid Mechanics	PEC	4	3	1	-	3	-	25	-	25	50	-
8.	CEN-638	Climate Change and its Impact on Water Resources	PEC	4	3	1	-	3	-	20-35	-	20-30	40-50	-
9.	CEN-614	Theory and Applications of GIS	PEC	4	3	1	-	3	-	25	-	25	50	-
10.	CEN-505	Environmental Hydraulics	PEC	4	3	1	-	3	-	25	-	25	50	-
11.	CEN-521	Advanced Numerical Analysis	PEC	4	3	1	-	3	-	25	-	25	50	-
12.	CEN-639	Transportation Data Analysis Techniques	PEC	4	3	1	-	3	-	20-35	-	20-30	40-50	-