



**DEPARTMENT OF CIVIL ENGINEERING  
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

Program Code: **19**    **M. Tech. (Hydraulic Engineering)**  
 Department: **CE**    **Civil Engineering**  
 Year: **II**

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
<b>Semester- I (Autumn)</b>														
1.	CEN-701A	Dissertation Stage-I (to be continued next semester)	DIS	12	-	-	-	-	-	-	-	-	100	-
		Total		12										
<b>Note: Students can take 1 or 2 audit courses as advised by the supervisor, if required.</b>														
<b>Semester-II (Spring)</b>														
1.	CEN-701B	Dissertation Stage-II (contd. From III semester)	DIS	18	-	-	-	-	-	-	-	-	100	-
		Total		18										

<b>Summary</b>				
Semester	1	2	3	4
<b>Semester-wise Total Credits</b>	<b>20</b>	<b>18</b>	<b>12</b>	<b>18</b>
<b>Total Credits</b>	<b>68</b>			

**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-614	Theory and Applications of GIS	PEC	4	3	-	2	3	-	15	25	20	40	-
9.	CEN-505	Environmental Hydraulics	PEC	4	3	1	-	3	-	25	-	25	50	-
10.	CEN-521	Advanced Numerical Analysis	PEC	4	3	-	2	3	-	15	25	20	40	-